

ISSN 0306 1698



**the grampian
speleological
group
bulletin**

fourth series

vol. 3 no. 3

October 2007

price £2

CONTENTS

	Page Number
Editorial	3
Meet Reports	4
Additions to the Library	7
A Linhouse Clean-Up	10
A Visit to Parys Mountain Copper Mine, Anglesey	11
Cave Diving in Kishorn and Assynt, May 2007	13
Rana Hole - The Saga Continues	15
Alva Silver Mines - Erratum	17
A Loom With A View	19
Some Notes on Durness	24
The Tar Tunnel	26
Dive Reports, Scotland 2003-2007	31
Book Review: Bibliography to the New Caves of Scotland	32
S.O.S. Soloing On Sunday	34
The End of the Fun Run	37
Great Orme Copper Mine	38
Unearthing a Vampire	39
Meghalaya 2007	40
Applecross Note	49
Two Caves at Arrochar	50
A Return to Iran and Ghar Parau	51
Some Baltic Jottings	53
Tiny New Finds in Assynt	54

Cover Design: A.L. Jeffreys

Obtainable from:

The Grampian Speleological Group
8 Scone Gardens
EDINBURGH EH8 7DQ

(0131 661 1123)

Web Site: <http://www.sat.dundee.ac.uk/~arb/gsg/>

E-mail (Editorial) goon90@hotmail.com

grampian speleological group

EDITORIAL:

When Norbert Casteret reached the end of his Henne Morte descent in 1947, his final act before beginning the long hard haul to the surface was to kiss the cave wall. Probably an act only another caver could truly appreciate.

When one is fit and in one's prime, the satisfaction gained from an energetic and contortionately challenging caving trip is very hard to define to an un-believer. It is more than just committing your whole body in ways other sportsmen cannot begin to understand; more than fears overcome or unpleasant sensations endured. Your determination, your sure-footed conquest of physical hazards, the mental discipline employed in alien country, all this and more fuses into an amalgam of emotional, even spiritual joy. When you are on top form, you 'flow' through a cave with grace and balance, treating every fresh obstacle like an Olympian athlete addressing his or her turn in a bid for excellence. I remember with particular fondness Snab and myself slithering through the round trip in Swildons in under two hours; of Eric Glen and I moving almost effortlessly to the sump in Ireby Fell Cavern and back out in 2½ hours. Of our fast trips through Dowber Gill Passage - gymnastics just for the hell of it.

All these and more memories came to mind when I read Dave 'Wig' Irwin's obituary. "Not interested in caves" he would say, "just obsessed." How true. How very, very true. Caving was a way of life for me in the glorious '60s and '70s, as I know it is for the tigers of today. My attempts to discover the source of all this delight has, probably justly, been described as 'cod psychology'. However I am still convinced there is a definite departure point from whence a thirst for underground adventure is derived. Perhaps I am mistaken and there are many disparate reasons why people cave, but how in any event do we adequately explain to the public why we do it, without leaving them an impression of institutional madness?

Well, let's grasp the nettle. I say it is a love affair, driven by curiosity and blood coursing through the veins. It is an almost sexual attraction consummated every time you are drenched by a mountain stream or wriggle along some mud-lubricated tube. You delight in a deep shaft bottomed, in the elegance of a well-placed rig, the beauty of fragile formations. Water racing down a narrow passage fills you with a primal longing to follow on, just to see where it goes. Cocooned in that friendliest of rocks, surrounded by those familiar landscapes, you feel right at home. This is not just where you can be, it's where you want to be.

Oh sure, there will be rows. On occasion the caves may hurt you, but still you have to be in them. It's what digging is all about. To bid farewell to our blue/green world for an experience that cannot be bought, feelings that speak volumes about what you crave deep down. Well, that's love, baby! With all my senses used to capacity, I overdose on caves. Whenever I return to a long time favourite, I stroke its walls and murmur "Hi old friend, I'm back." Try explaining that to a non-caver. Face it: we're married to caving and I for one will never ask for a divorce!

* * *

This summer witnessed the final act in our occupation of the Knockan Field Hut. After 30 years of often character-building weekends surviving gale force winds and deafening torrential rain on the long-suffering corrugated iron roof, we at last acknowledge that the siren's lure of our new decadence at Taigh nam Fadh has drawn a line under that era. Our debt to Dick MacLeod, who lent us the hut for no recompense whatsoever, is immense. As we hand it back, at least we can take comfort from believing that the breeze block extension at the back, which was built by us in 1976, has prevented the whole affair from being demolished by stern Sutherland weather long ago. Dick has not been too well these last few years, but we extend our very best wishes to him. At the 'formal' hand-over, he was presented with a few modest gifts by way of thanks. A fuller account of our years at Knockan appears in this issue.

Alan L. Jeffreys, Editor

AREA MEET REPORTS (to 15.9.07) (Edinburgh logs only)

It may appear that the club has cut back on the variety of trips recently but the explanation for this is a sustained attack at the Rana Hole dig. It is unfortunate that this concerted effort has resulted in a ponded dig face but it is hoped that the blockage will soon be overcome.

ARGYLL

In late February George Kennedy explored Natural Arch Series and Fish-hooks Cave, leaving with a conviction that there is more to find, particularly by digging the big depressions above the caves.

At the beginning of April Ivan Young and Pete Ireson spent two days installing eco-hangers in Uamh nan Claig-ionn, noting that the large floor slab at the top of Popleton Pot is moving and may have to be trundled (making the pitch shorter!). During the same weekend Jim Salvona and Derek Pettiglio wandered over Glen Stockdale, opening up a few small digs.

A quick trip in July saw the last of the p-hangers installed in Claig-ionn and some SRT practice was had there as well.

CLACKMANNANSHIRE

The season commenced in March with a return to Alva Silver Mines to re-survey Mine 1 and measure distances on the surface. One discovery was fresh blockages cemented across the until then accessible workings. (See this issue)

ESTONIA (and LATVIA)

Continuing his mission to find caves in improbable places, Dick Grindley spent some time in Estonia in May, and successfully traced some small orifices. At Taevaskoje was Emalatte Koobas, a 15m deep hole in the base of a sandstone cliff. Piusa Sand Caves close to the Russian border are in fact glass sand mines open to the public (but of course, locked when Dick called). He achieved a 4m through trip in another mine.

In Latvia, two adjacent rock shelters called Gutmara and Victara some 25m deep and 10m high were visited some 39km north east of Riga. Since the former is said to be the biggest cave in the Baltic Republics, it is doubtful whether any speleological expeditions will be mounted.

FIFE

In June John Crae helped to re-open and visit a mine and counter mine underneath St Andrews Castle. A survey was made. July saw a small group investigating the limestone mine at Charlestown where there are at least 18 entrances, and in spite of flooded levels they found lots of artifacts and flowstone.

INVERNESSSHIRE

In March there were trips into High Pasture Cave and Breakish Caves with the latter being inspected for possible new leads. There was another jaunt down High Pasture Cave in August by Carol Dickson.

LANARKSHIRE

In July Jim Salvona made a fruitless attempt to trace Coulter Lead Mine near Biggar but found nothing, not even spoil heaps.

NORTH WALES

Jim Salvona went into a 4,000 year old copper mine at Llandudno in June, which, although open to the public, was 'self-guided' if you had a torch - which he did.

ROXBURGHSHIRE

In June, seizing an opportunity while in the area for a presentation by Glen Jones, a group of eleven made an inspection and survey of a cundie at Sweethope Farm.

STIRLINGSHIRE

There was a visit to Craigend Limestone Mine at Cambussbarron in March by two members when some 380 metres of watery passage were seen.

In August two members explored Rob Roy's Cave in breakdown at Inversnaid, noting there were other small voids in the vicinity.

SUTHERLAND

Activity in Sutherland kicked off in March when five members resumed filming in Uamh an Claonaite, achieving 20 minutes of film along Cavity Wall Passage and down both watershoots at which point the camera began protesting at the humidity (and the lighting people at the cold). There was also a dangle at Corrieshalloch Gorge where 30m of rope was totally insufficient to reach the water! The following day there were visits to Knockan Pot (full of water) and Padre's Pot. Twelve diggers continued to grind away at Rana, removing 167 kibbles of spoil and fettling the machinery. Simon Brooks continued his underwater dig at Cnoc nan Uamh static sump, making good progress.

In April, more digging at Rana resulted in 139 kibbles being removed and there was a tourist trip in ANUSC. Also at the end of April, the 'Mendip Migration' witnessed nine Rana digs, three trips to Claonaite, two to ANUSC, one to Smoo Cave, two to Otter Hole, three to Cnoc nan Uamh and five to a new find, 3G's Cave near the Claonaite sinkpoint. 330 kibbles were hauled up during the week, but a dive to Claonaite 7 revealed no sign of all this activity in Belh Aven.

At the end of May Goon and Su Jeffreys wandered up to 3G's Cave but found a good going stream running into it so did not attempt an exploration. Also at the end of May, thanks to a visit by ISSA, there were three productive days at Rana resulting in 142 kibbles removed.

At the end of June three members set off on a photographic trawl round the Knockan area, capturing images in Uamh Pol Eoghainn, Elphin Hole, Un-named Cave, Uamh Cul Eoghainn and Uamh an Tartair. Simultaneously a tourist trip in ANUSC paved the way for a surveying bout the following day. Four days of work continued at Rana Hole, which reached a levelling off, assumed to be the start of the horizontal connection toward Belh Aven. Unfortunately it was ponding up which is going to be annoying in the winter. The Knockan area was finished off on Sunday with photographs taken in the new Uamh Torren and down Knockan Pot (now dry again).

The late Mark Campbell and Chris Warwick checked out Cuil Dubh in June, managing to get into the dry entrance but discovering that the cave is now full of debris up to the level of the first chamber. They also explored Storm Cave.

In July, digging in a shakehole 100m upstream of Claonaite by three members revealed a promising sink, presumably an inlet to upper Claonaite. Called 4 Humps Cave, work continues. At the same time there were

trips into ANUSC and the Bone Caves, and digging/building at Rana meant erecting a ledge dam to store ponded water at the bottom.

In mid-August an eight-strong party built a retaining dam at the bottom of Rana - which now seems water-tight - and Chris and Shona Warwick also had a tourist trip down Claonaite to Sump 3 and Capital Series. The weekend was rounded off with a lone trudge over moors north of Beinn nan Cnaimhseag by Goon in dreadful weather, when several mature shakeholes were found swallowing respectable quantities of water, but nothing particularly diggable identified. There were more trips to Rana in August, mainly concentrating on constructing and perfecting the holding dam at the bottom. Simultaneously there were tourist trips into Claonaite and ANUS Cave.

WEST LoTHIAN

On 20th May there was a practice rescue at Bowden Hill Limestone Mine with two schoolboys playing the part of benighted people. The ensuing search found them perhaps a little quickly! Also in May there was a tourist trip down Hillhouse Mine at Beecraigs.

In June, five members carried out a clean-up of Linhouse Water Shale Mine (see this issue).

YORKSHIRE

Another busy season in the Dales began in March with trips into Easegill via Wretched Rabbit and to Toyland in KMC. The master cave was the scene for another trip on the next Monday to retrieve a full bag of karabiners etc left at the Carrot Passage junction (successful).

The following weekend there was a tourist trip down Illusion Pot followed the next day by a through trip in Calf Holes and Browgill Cave.

At the end of April two members en route to a BCRC meeting in Derby took time out to descend Bull Pot, Kingsdale, and the next day six others paid a flying visit to Chapel le Dale, achieving trips into Sunset Hole, Hardrawkin Cave and Great Douk Cave in the face of a fell running event.

In early May there were trips into Marble Steps (Sidewinder route) and Alum Pot direct and on the May bank holiday, three members went to Gragareth in poor weather for a descent of Rift Pot. Time constraints prevented a full exploration of the large passage at the bottom but sufficient cursing got them back to the surface in time for a hailstorm.

A pleasant wander down Tatham Wife Hole was achieved by a team of four in June and simultaneously there were trips down Alum Pot and Bull Pot, Kingsdale, while yet another group descended Cow Pot into Lancaster Hole. The next day a smaller team went down Rowten Pot.

At the beginning of July eight members carried out a multiple descent of Notts Pot, choosing Adamson's and Centre routes but a mixup with rope lengths meant an undescended final pitch (which was very wet anyway!) On Sunday, having diverted from a crowded Aquamole Pot, the group went down Marble Steps instead, and as a bolt-on, explored the crawl across Stink Pot to find a small decorated chamber sporting some mud sculptures.

The first week in September saw a small group descending Diccan Pot and Sell Gill Holes via the dry route having postponed Black Shiver due to insufficient people.

ADDITIONS TO THE LIBRARY (to 15.9.07)

1. BOOKS:

Berenger, M. (1973) Prehistoric Man and His Art. The Caves of Ribadesella
MacGregor, A.A. (1973) The Changing Land
Kharpran Daly, B.D. (2006) The Caves of Meghalaya
Merchant, D. (2007) Life On a Line. (2nd Ed.)
Skillen, B. (1985) The Mines and Minerals of Campsie
Carr, J. (1865) Rambles About Ingleton. The Caves. (3rd Ed.)[copy]
Johnson, B. (1982) Down Under. The Relay Readers Blue Book No.6 (Children's book)
Eyres, J. (2007) The Game Goes On
Jackson, I. [Ed] (2004) Britain Beneath Our Feet. BGS Occ Publ No.4
Peyrony, E. & L. Casalis (1977) Notions de Prehistoire
Riley, F. (1923) The Settle District and N W Yorkshire Dales

2. SHEET SURVEYS:

Easegill Caverns, Sheet 3: County Pot;Snail Cavern Area to Holbeck Junction. Approx. Scale
1" = 20m

3. CAVING JOURNALS:

BEC Belfry Bulletin	No. 527 (2007)
BCRA Newsletter 'Speleology'	Nos.8,9 (2006-7)
BCRA Cave and Karst Science	Vol. 33 No.2 (2007)
BCRA CREG Journal	No.66 (2007)
British Caving Association, Handbook	2007-8 (2007)
British Caving Association, Newsletter	No.8 (2007)
Cave Diving Group, Newsletter	Nos. 163,164 (2007)
Chelsea Spelaeological Society Newsletter	Vol. 49 Nos.3,4,5,6,7,8/9 (2007)
Craven Pothole Club, Record	Nos. 86,87 (2007)
Derbyshire Caver	No. 126 (2007)
Descent	Nos. 195,196,197 (2007)
Die Hohle	Vol. 57 Nos. 1-4 (2006)
Emergency Services Times	Vol.8 No.1 (2007)
Mendip Caving Group, Newsletter	Nos. 338-343 (2006-7)
Mountain Rescue Committee of Scotland 'Casbag'	Nos.1,13,14,15 (2003-7)
NAMHO Newsletter	June 2004
Orpheus Caving Club,Newsletter	Vol. 42 Nos. 7/8,9-12 Vol. 43 Nos. 1-3, 4-6 (2006-7)
South Wales Caving Club, Newsletter	Nos. 104,126 (1988-2007)
South Wales Caving Club, Newssheet	Nos. 3,4,5,6 (1974)
Speleologia (Italian Speleo. Society)	Year 28 No. 56 (2007)
Subterranea Britannica, Bulletin	No.32 (2007)
Subterranea Britannica, 'Subterranea'	Nos. 13,14 (2007)
Subterranea Croatica	Vol.7 No.4 (2006)
Sydney Speleological Society Journal	Vol. 51 Nos.2,3,4,5,6,7,8 (2007)
Touring Club de France; Groupe de la Lavanche Newsletter	No.1 (1970)
Wessex Cave Club, Journal	Vol. 29 Nos. 304,305,306 (2007)
Westminster Spelaeological Group Newsletter	2007/1, 2007/2, 2007/3
Westminster Spelaeological Group Bulletin	Vol.9 No.9 (2007)

4. MAPS:

OS 1:50,000 Sheet 58 Perth and Alloa (2004)
Sheet 59 St Andrews (2004)
Sheet 65 Falkirk and Linlithgow (2005,2006)
Sheet 66 Edinburgh (2004)
Sheet 97 Kendal and Morecombe (2005)
Sheet 98 Wensleydale & Upper Wharfedale (2002)

OS 1:25,000 Sheet:

No. 354 Colonsay and Oronsay
No. 369 Perth & Kinross
No. 370 Glenrothes North, Falkland & Lomond Hills (2 copies)
No. 373 Iona, Staffa and Ross of Mull
No. 384 Glen Coe & Glen Etive (8 copies)
No. 389 Forfar, Brechin and Edzell
No. 432 Black Isle, Cromarty & Dingwall
No. 433 Torridon, Beinn Eighe & Liathach
No. 434 Gairloch & Loch Ewe
No. 445 Foinaven, Arkle, Kylesku & Scourie
No. 456 North Harris & Loch Seaforth

1:25,000, Double sided:

No. 351 Dunbar & North Berwick, east and west sheets
No. 353 Islay North, east and west sheets
No. 358 Lochgilphead & Knapdale North, north and south sheets (3 copies)
No. 360 Loch Awe & Inverary, north and south sheets
No. 361 Isle of Arran, north and south sheets (2 copies)
No. 363 Cowal East, Dunoon & Inverary, north and south sheets (2 copies)
No. 364 Loch Lomond North, Tyndrum & Crianlarich, north and south sheets (9 copies)
No. 365 The Trossachs, north and south sheets (5 copies)
No. 366 Stirling & Ochil Hills West, east and west sheets (4 copies)
No. 367 Dunfermline, Kirkcaldy & Glenrothes South, east and west sheets
No. 368 Crieff, Comrie & Glen Artney, east and west sheets (2 copies)
No. 371 St Andrews & East Fife, north and south sheets
No. 372 Coll & Tiree, east and west sheets
No. 374 Isle of Mull North & Tobermory, east and west sheets
No. 375 Isle of Mull, East, east and west sheets
No. 377 Loch Etive & Glen Orchy, east and west sheets (6 copies)
No. 378 Ben Lawryers & Glen Lyon, east and west sheets (7 copies)
No. 383 Morven & Lochaline, east and west sheets
No. 386 Pitlochry & Loch Tummel, east and west sheets
No. 390 Ardnamurchan, Moidart, Sunart & Loch Shiel, east and west sheets (2 copies)
No. 406 Aberdeen & Banchory, east and west sheets (2 copies)
No. 420 Correen Hills & Glenlivet, east and west sheets
No. 425 Huntly & Cullen, north and south sheets
No. 428 Kyle of Lochalsh, Plocton & Applecross, north and south sheets
No. 439 Coigach & Summer Isles, east and west sheets
No. 460 North Lewis, east and west sheets

5. CAVE GUIDES, ABSTRACTS, ETC:

West Lothian Council Libraries (2004) Mining Silver in the Bathgate Hills. No. 1068

Cave Guide Leaflets: Gouffre Geant de Cabrespine, France

Cave Rafting, Taniwha Caves, New Zealand

Above and Below. National Coal Mining Museum for England.

Abstract: A Historical Note on the Alderley Edge Mines. E. Moss. Rucksack Club Journal Vol. IX No.5 (1942) 2pp No. 1069

Abstract: The Potter on the Hearth. S.F. Forrester. Rucksack Club Journal Vol. IX No.5 (1942) 2pp. No. 1070

Abstract: You Little Tinker. S. Sinclair. Rucksack Club Journal Vol. XXI No.2 (1991) 2pp. No. 1071)

- Abstract: 1. In Search of the World's Deepest Cave. 2. Life's Ups and Downs. J. Beatty. Rucksack Club Journal Vol. XIX No.4 (1983) 7pp, 3pp. No. 1072
- Abstract: Anything New? D. Irwin. Mendip Times Vol.2 No.7 (2006) p. 34 No. 1073
- Abstract: Cavers' Historic Find. D. Irwin. Mendip Times Vol.2 No.8 (2007) pp 10-11. No. 1074
- Abstract: Cavers at Work. D. Irwin. Mendip Times Vol.2 No.9 (2007) p.31 No. 1075
- Abstract: Life Underground. D. Irwin. Mendip Times, Vol. 2 No.10 (2007) p. 32. No. 1076
- Abstract: The G B Cave. D. Irwin. Mendip Times Vol. 2 No.11, (2007) p.40. No. 1077
- Abstract: Death of Dave Irwin. Anon. Mendip Times Vol.2 No.12 (2007) p.22 No. 1078
- Abstract: Recent Cave Campaigns. E.A. Baker. Rucksack Club Journal Vol.2 No.3 (1913) pp 173-180. No. 1079
- Abstract: Th'Ole. F. Solari. Rucksack Club Journal Vol. IX No.1 (1938) pp 56-61. No. 1080
- Abstract: Holes and Corners - May 1946. S.F. Forrester. Rucksack Club Journal Vol. X No.4 (1947) p.279 No. 1081
- Abstract: The Club Below Ground. J.H. Entwisle. Rucksack Club Annual Report (1904) 4pp No. 1082
- Abstract: Manifold Scratchings Underground. S.F. Forrester. Rucksack Club Journal Vol.VIII No.3, pp 323-325 No. 1084
- Abstract: 1. Underground Work in 1905. J.R. Corbett. 2. Recent Work in Somerset, Yorkshire and Ireland. E.A. Baker. Rucksack Club Annual Report (1905) 4pp. No. 1083
- Abstract: Scratchings Underground. S.F. Forrester. Rucksack Club Journal Vol.VIII No.1 (1935) pp 61-68. No. 1085
- Abstract: Gaping Ghyll. S.F. Forrester. Rucksack Club Journal Vol. XIII No.2 (1957) pp 155-156 No. 1086
- Abstract: 1. Cave near Grane-over-Sands. S.F. Forrester. 2. The Club's 50 Years. J. Wilding. Rucksack Club Journals, Vol. XI No.3 (1950) p. 278, Vol.XII No.1 (1952) pp 17-18. No. 1087
- Abstract: 1. Some Caves in North Wales. P. Wild. 2. The New Passage in Giant's Hole. S.F. Forrester. Rucksack Club Journal Vol. IX No.2 (1939) pp 212-215. No. 1088
- Pearce, K. (1964) Extracts from the Log of the 1964 Gouffre Berger Expedition. No. 1089
- Happy Wanderers Caving & Potholing Club (1965) Pyrenean Expedition 1965: Casteret Ice Cave & Surrounding Area. No. 1090
- Hall, A., S. Lieberman, H. St Lawrence *et al* (2006) Easegill Caverns Survey, Sheet 3: County Pot, including Wretched Rabbit and Snail Cavern to Holbeck Junction. No. 1091
- Abstract: Where the River Goes Down. V.P. Borg. Geographical Magazine Vol. 79 No.4 (2007) pp 70-74. No. 1092
- Cave Postcard Wallet: The Koneprusy Caves, Czech Republic. No date.
- Cave Postcard Wallet: Cox's Caves, Cheddar. No date (pre war)
- Guide: The Tar Tunnel. Anon. (Tour Leaflet) (no date) No. 1093
- Guide: La Grotte de Fonte-de-Gaume (1984)
- Taralon, J. (no date) The Grotto of Lascaux
- Peyrony, E. (1959) Les Eyzies
- Hong Meigui Yunnan 2004. Joint Expedition Report (2005)
- Abstract: High Pasture Cave. T. Williams. Scots Magazine, New Series Vol. 167 No.3 pp 240-244. No. 1095

6. SLIDES, DVDS, CDS, ETC:

CD. Open Country. BBC Radio 4 (Bone Caves, Assynt) 3.3.2007

DVD:

No. 19: A Tribute to Mike Wooding (2006)

No. 20: The Cavern (Film) (2007)

No. 21: Ultimate Caving, BBC (2007)

A LINHOUSE CLEAN-UP

By Alan L. Jeffreys

The small, grid patterned oil shale mine on the banks of the Linhouse Water (NGR NT 075666 approx) near Mid Calder [note: *although not GPS'd, this grid reference is more accurate than that I gave in a letter to Descent No. 196*] is easily accessed from a rough path at water level or down slope from a better path in Calder Wood, both commencing beside a pub where the river runs under the B 7015. As such, it provides an interesting scramble about for casual visitors, possibly the only shale mine in the area to provide this facility safely. Unfortunately as a result there was a lot of refuse, scraps of burnt paper, broken glass and discarded beer cans disfiguring the various passages. Some of the entrances had been partially walled off with breeze blocks, and fragments of these too were scattered inside the mine.

Roger Galloway conceived the idea of conducting a clean-up of these workings, to restore them to a pristine condition so that curious visitors would not run the gauntlet of cuts from broken glass, and be put off by the detritus of rubbish everywhere. Consequently, on the evening of Wednesday 20th June, a party of five - Roger, myself, Annie Audsley, Bob Somerville and Jamie (Boab) Yuill) - descended on the site well armed with rubber gloves, rubbish sacks and shovels. Levels were quite high after recent rain, putting sections of the river walk under water, but the mine lies high and dry and was soon reached.

We separated into small groups and worked our way up the various parallel passages, rapidly filling our polythene sacks. Thankfully there was no sign of contaminated sharps or (much) human excrement to deal with, and within the hour we had virtually finished. Interestingly, at one point the remains of a yellow pages directory which had been used for illumination were found partially calcified over on the floor.

We left the workings in a pretty thoroughly cleaned condition and carried five full bags of rubbish back to the cars for proper disposal. During the work, various coins were recovered and 25p was re-introduced to the national economy.

Doubtless local yoofs will eventually restore the litter levels but for now, Linhouse Water Shale Mine is a clean, pleasant place to visit. Most of the adits end at solid chokes or work faces, but the final stretch of the centre passage dips down into a flooded section and a low crawl could be pushed off another, indicating possible extensions running toward the village. Old maps of the area show air shafts and other industrial indicators of mining activity so there could be more to find in nearby woods.

Of course there is an air of self-righteousness to be gained from this type of exercise but it does demonstrate that for a little outlay of effort much can be achieved. It would be worth considering other sites for similar treatment. In particular, the most popular Appin caves should be inspected and subjected to a clean-up if required and, although we have tidied up some Assynt caves before, places like Cnoc nan Uamh need constant checks, due to the considerable traffic through them these days.

The GSG should view itself as *de facto* custodian of Scotland's underground world and be much more active in this area in future. Litter is ugly, potentially harmful and preventable. So let's prevent it.

Taigh nam Famh:

Accommodation at the GSG field centre at Elphin is available to non-members for £5 per head per night. Bookings should be addressed to the Hut Warden, Peter Dowswell:

Home: 01463 229250

Email: peter.dowswell@btinternet.com

-----oOo-----

A VISIT TO PARYS MOUNTAIN COPPER MINE, ANGLESEY

By Alison Fuller-Shapcott



A passage in Parys Mine. Note deads reclining against the pit prop!

Photo: A. Fuller-Shapcott

I had promised myself that I would never visit another old copper mine. They are after all unstable and prone to collapse, especially because of the practice of stacking waste non ore-bearing rock behind now rotten wood. However curiosity got the better of me, and so with a family holiday to Anglesey organised I contacted the Parys Mountain Underground Group and asked to join them on their regular Wednesday evening trip underground. Alan Kelly, the group's access officer (alan.kelly@walkamlwch.co.uk) was more than delighted to arrange a guided tour.

Parys Mountain (a slight misnomer as its height is only 147m) is located about two miles south of the town of Amlwch. It got its English name from a former land owner called Robert Parys who received the land as payment for service to the Crown in 1406. The original Welsh name of Mynydd Trysglwyn described it as being topped with a grove of trees covered in scabby lichens. The trees have now disappeared following the general deforestation of the land and the landscape now has the appearance of a barren desert.

The mountain has a history of copper mining going back 3500 years. However it was in the 18th and 19th centuries that the greatest amount of copper was produced. It is thought that in a period of 150 years over 3.5 million tonnes of ore was raised, mostly by hand, from the Mona and Parys mines which are both located on the mountain.

On 2nd May 2007 we met at 6.30pm in the main car park at the start of the Parys Mountain Heritage Trail, and once all four of us had assembled, Alan and Ollie from the Parys Underground Group, myself and another Alan who were to be shown around, we drove further up the mountain on a private track to the mine entrance.

The copper ore at Parys Mine, Chalcopyrite (CuFeS_2), is high in sulphur and so the mine environment is slightly smelly but more importantly acidic. This means that gloves are recommended and any gear is washed thoroughly or binned after the trip. Eye wash bottles are located at strategic points around the mine in case of mine water coming into contact with eyes.

The only entrance to the mine is gated and locked. The group are keen to show people around, but only under strict supervision as the site is of historic importance and because of the many hazards in the tunnels. The Parys mine and its neighbour the Mona mine are linked (although they were worked separately and did originally have separate entrances), but a visit into the Mona mine involves a fairly extensive trip down to the bottom of the Parys mine and then crossing over to the Mona mine via a joint drainage level.

There are five main levels in the Parys mine: 10 fathom, 16 fathom, 20 fathom, 30 fathom and 45 fathom. There is also a 26 fathom level, but this is not a complete level, more a mezzanine level between the 20 and 30 fathom levels. The original zero datum level from which the levels were measured is thought to have been 24 feet higher than the entrance meaning the 10 fathom level is actually -36 feet and not -60 feet as you would have thought. Therefore the deepest level we visited, which is the 45 fathom level is actually -236 feet. The levels are reached either by wooden ladders fixed to steeply sloping shafts (in some cases the ladders were original) or, as in two cases, by roughly hewed spiral staircases cut into the rock. At each main level an east

and a west cut tunnel run off to the workings. Most of the tunnels we visited are easy going, stooped walking. Water levels were well below welly height. In a few places collapses require some crawling, but this was very limited.

Only the 10 fathom level wasn't visited. I presume that this was because its closeness to the surface made it more unstable than the other deeper levels. We gradually made our way down to the 30 and 45 fathom levels, before returning to the higher levels. On each level there was plenty to see. Dark red formations coloured by iron oxide were present on each level and ranged from straws to reasonably sized stalagmites. The other more unusual formations known as 'snotties' are slime formations created from the waste products from bacteria present in the mine. They ranged in colour (white to yellow depending on the type of bacteria producing them) and in form, from single thin threads to tatty curtains hanging from beams.



A wall of 'deads' in Parys Mine - possibly a fatal accident just waiting to happen!

Photo: A. Fuller-Shapcott

On the 16 fathom level there are two deep pools containing acidic red coloured water. The colour and the high acidity are formed by the oxidation of pyrite and other sulphide minerals to form sulphuric acid. Some pools have been recorded as having a pH of as low as 2. The geology is so unique in Parys Mountain that several minerals found in the mine, Pisanite $[(Fe_2+,Cu)SO_4 \cdot 7H_2O]$, Antlerite $[Cu_3(SO_4)(OH)_4]$, Basaluminite $[Al_4(SO_4)(OH)10.5H_2O]$ and Anglesite (a lead sulphate) are considered rare elsewhere in the UK.



Curtains of 'snottolite' slime hanging from timbers.

Photo: A. Fuller-Shapcott

Due to the acidity of the environment there are few relics from the 18th and 19th century left in the mine. Even recently introduced metal artefacts have rotted away, so those items left are extremely delicate and valuable in recording life in the working mine. A chisel, barely recognisable with corrosion, two cigarette boxes, a stump of tallow candle, a piece of old sail cloth which was probably used to kneel on, the remains of a wooden bucket, a clay tally on the wall for counting buckets of ore raised to the surface and old newspaper most probably used as toilet paper. Occasionally clumps of plant matter are found. These are thought to be the remains of rush mats made locally as kneelers for the miners.

These few items can only give us the merest hint of what life was like for the miners. I am fascinated by mines; to me they are the antithesis of caves. I go down caves for their beauty and a chance to explore. Mines are part of our social history, and only by visiting these places can you really appreciate what life was like for a miner 200 years ago.

Over 100 Bronze Age hammer stones (large quartzite pebbles from local beaches) have been found in the upper levels of the mine which indicate that mining was carried out over 3500 years ago on Parys Mountain.

On the 16 fathom level, I was shown two areas currently under archaeological investigation where the 18th century mine had broken through into the bottom of Bronze Age pits dug down from the surface. The older workings had been back-filled over time and a cross section of this fill had revealed not only the stages of back fill, but also organic material which has been carbon dated to the early Bronze Age.

Having been given an extremely extensive tour by Ollie, we emerged three hours later to a starry night sky. It was a fascinating trip, and I would thoroughly recommend anyone visiting the area who has an interest in mines, to take advantage of the guided tours provided by the group (www.parysmountain.co.uk).

CAVE DIVING IN KISHORN AND ASSYNT - MAY 2007

By Simon Brooks

Joining the latter part of the annual 'Mendip Invasion' that took place at the end of April/early May of this year I detoured via Kishorn on the way north in order to dive the terminal sump in **Cave of the Queens** (NGR 88264,45144). Thus Thursday 3rd May saw me making a long dash up the motorways running the gauntlet of speed cameras; another initiative designed to raise money (sorry, make the roads safer!). I arrived 6.30pm at the A87/Achnasheen road junction just outside Kyle of Lochalsh where I met Dave and Ritchie who were waiting in Dave's father's little Suzuki jeep. In convoy we then drove up to Kishorn where I abandoned my car and joined Dave and Ritchie along with the diving gear in the jeep. Enquiring as to whether my car and contents would be safe parked by the road, Dave looked at me rather quizzically and said I need not worry too much as some folk don't even bother locking their front doors up here. Silly to have asked really.

We then drove up the track in the direction of Cave of the Queens meeting the crofter (Ian MacCuish) and a large flock of sheep a little further along the track. Ian commented that we must be keen coming all the way from Kyle in the evening just to visit the cave. "Not as keen as he is" commented Ritchie, and explained that I had just driven up from Derbyshire. "Aye, that's a long way" came the comment from Ian whilst giving me a 'you need to get out more mate' look. After a short conversation Ian kindly agreed to come over with his Argocat and give us a lift up to near the cave thereby saving some walking. Reaching as far along the track as the jeep could go we transferred the kit and ourselves into the Argocat and headed up to the cave. This amazing little vehicle then bucked and scrambled its way across the peat and heather with all of us on board. Arriving at a small plastic hut that is used by shooting parties we changed and walked up to Cave of the Queens.

Ritchie and I then went into the cave to assess the situation. The cave proved rather tighter than I expected and getting to the sump in my diving suit required digging out the floor of the crawl just prior to the sump. The roof at this point was clearly of questionable stability as a large slab peeled off from the roof and temporarily pinned my legs against the wall. The solution to this potential hazard was simple - lie on my face and look at the floor and not the roof. The sump pool proved to be a rift about 0.5m wide and 4m in length and as Ritchie had said, the passage did indeed appear to continue underwater, although above water it was rather more compact.



Dave, Ian MacCuish and Ritchie before the Argocat sets off for Cave of the Queens. Photo: Simon Brooks

Returning to the entrance we then collected a single bottle and a demand valve and assisted by Ritchie (who was about to become my line belay) I returned to the sump. Kitting up proved entertaining as this had to be achieved standing upright in the sump pool with my bottom lip just above the water whilst Ritchie passed me various bits of equipment and I attempted to put them on by feel without dropping anything. This accomplished I dived first at the far (north) end of the sump pool where I managed to enter the sump for 4m to a depth of -3m where the passage became too narrow for further progress although my legs could feel an apparent enlargement beyond the constriction. A second attempt saw no further progress being made and on making my way back to Ritchie I noticed that mid way along the sump pool the passage widened a little at a joint. Diving here I descended the rift for -3.5m to reach a cobbled floor at the base of the rift. The rift was then followed feet first for a total of 7m to a point where it was just the width of a wellie boot. Having only a small single cylinder and DV and with the sump clearly closing down fast I decided to call it a day at this point and exited to re-join Ritchie. The sump clearly shows signs of the water backing up in higher flow

Returning to the entrance we then collected a single bottle and a demand valve and assisted by Ritchie (who was about to become my line belay) I returned to the sump. Kitting up proved entertaining as this had to be achieved standing upright in the sump pool with my bottom lip just above the water whilst Ritchie passed me various bits of equipment and I attempted to put them on by feel without dropping anything. This accomplished I dived first at the far (north) end of the sump pool where I managed to enter the sump for 4m to a depth of -3m where the passage became too narrow for further progress although my legs could feel an apparent enlargement beyond the constriction. A second attempt saw no further progress being made and on making my way back to Ritchie I noticed that mid way along the sump pool the passage widened a little at a joint. Diving here I descended the rift for -3.5m to reach a cobbled floor at the base of the rift. The rift was then followed feet first for a total of 7m to a point where it was just the width of a wellie boot. Having only a small single cylinder and DV and with the sump clearly closing down fast I decided to call it a day at this point and exited to re-join Ritchie. The sump clearly shows signs of the water backing up in higher flow

conditions and as such is unlikely to be penetrable much further. The sump itself is 7m in length and descends to a depth of -4m heading in a direction of 30 degrees (NNE).



Ritchie in the entrance passage, Cave of the Queens.

Photo: Simon Brooks

Ritchie and I returned to Dave and I then took some photographs in the entrance passage of this fine little cave. Not exactly the find of the century, but at least we know a little bit more and had increased the cave's length by another third. We walked back to the jeep in the cool evening admiring the magnificent sunset/evening light over the Torridons. Ritchie and Dave then headed back to Kyle whilst I enjoyed a mad cross-country dash to the GSG hut, arriving about 1.30am. Many thanks to Dave and Ritchie for their assistance and enthusiasm and to Ian MacCuish and his Argocat for the lift up the hill.

The next day (Friday 5th May) Pete Glanvill, Fraser and I went into Claonaite and dived through sump 3 where we spent several hours shooting video footage of the passages and sumps between 3 and 5. Whilst Fraser and Pete did some more filming in the sump 6b area I dived through into Claonaite 7. Clearly there had been some considerable flow through sump 6b in recent times. The line belay at the far end of the line had been pulled off the rock it was attached to, and the snoopy at the base of the pot near the downstream end of the sump had been snapped. Fixing these I then went to the base of Belh Aven where I looked for the dye that J-Rat had been pouring down the hole at the base of Rana over the past week. Regretfully, much searching yielded no evidence of dye. I then listened for sounds of digging above, sadly none could be heard. So I then resorted to shouting (quietly at first so the suspended boulders in the aven were not tempted to fall on me) "Oy you lightweights" up Belh Aven yet even this did not get a response. I then returned to Fraser and Pete and we set off out back to sump 3 and out of the cave. Fraser seemed pleased with the video footage gained and a fine trip was had by all.

On Saturday 6th May Tony Boycott kindly agreed to assist me in a dive in the upstream static sump in **Cnoc nan Uamh**. I had last dived this sump in March of this year with assistance from Mark Tringham who had helped me remove several more skip loads of peaty mud from the sump. Putting the diving kit on in what must rank as one of the UK's most foetid kitting-up spots the diving revealed that once more the mud in the sump had slumped down again and it looked as full as ever. However, the mud seemed to be of a more thin consistency rather than its normal thick glutinous (and barely penetrable by diving) nature so things had at least improved a bit. With assistance from Dr. B. I managed to removed over half a dozen good skip loads of mud from the sump and regain the low airbell in the middle. It then became apparent that the digging had also opened up a low airspace between the dive base and the airbell making communication much easier and digging a lot easier. By the time I had used my available air I had reached a point some 12m into the sump and things were improving. The records show this sump to be around 15m in length so the end cannot be too far away. The fact that on this occasion the initial part of the sump un-roofed seems to indicate it has no great volume and that the systematic extraction of sediment is having the desired effect. Hopefully next time a breakthrough will happen. Extracting myself from the sump we returned to Landslip Chamber where I washed both the kit and myself before we returned to the surface for a sunny walk back down to the hostel opposite the Inch where we had left the car. Another good day out only blemished by the fact that the Inch was not open for a post-cave pint. Many thanks to Dr. B. for the carry.

RANA HOLE - THE SAGA CONTINUES

By Tony Jarratt

Having failed to lure any new diggers to this epic project, it was a very limited ‘Mendip Invasion’ that headed the 625 miles north at the end of May. From the Hill: Paul Brock and your scribe; from Chard, Peter and Philippa Glanvill and, later in the week, the Bristol contingent of Tony Boycott and Jayne Stead. Mark Brown and Norman Flux had travelled up from Sheffield a few days earlier in the trusty ‘big van full of more digging technology’. Perfectionist Norman had designed a winch with three cycles in parallel to replace the tandem version and had thought up various improvements to the hauling system. They were joined by Roger Galloway. Derek Guy drove up from Stirling and arrived with the Mendip team to find that the lads had, thankfully, already transported the new winch up the mountain and were in the process of fettling it.

On the 29th May seven diggers set off up the Allt nan Uamh valley in glorious weather but with extremely strong wind. Your scribe, dressed in green wellies and a pale blue and pink tartan fleece suit and carrying two conspicuous road signs provided much amusement and curiosity to several walkers visiting the Bone Caves. Trying to explain what he was doing was not easy and the road signs were much regretted when he rounded ‘windy corner’ just beyond the Bone Caves, and was blown off his feet by a strong gust. With an almost vertical drop down to the valley floor he got away lightly but practically crawled the rest of the way. At Rana Hole he joined Paul to fill bags with spoil while the engineers continued the good work. 17 kibble-loads of spoil were hauled out, mainly from the now collapsed pile of mud and rock to the rear of the floor of the shaft. Much junk was also pulled out and a huge perched boulder was drilled and banged. Red dye was dumped into the trickle of water sinking at the bottom but was not detected in the underlying Uamh an Claonaite when visited by Simon Brooks later in the week. Does this mean that Rana goes somewhere else? Time will tell. While all this was going on Pete, Philippa and Derek, after a tourist trip in



Mark fettling the headgear while Norman adjusts the ‘Fluxcavator Mk 5’ cycle winch.

Photo: Paul Brock



3G’s Cave entrance in wet conditions Su Jeffreys for scale. Photo: Alan Jeffreys

Claonaite, had found a possible new cave near the main stream sink. This was tentatively called Three G’s Cave for lack of a local name and was later dug and banged before the team headed down for libations at the Inch. Lying on the east side of a peat basin north of the sink at Loch an Claonaite, this small new cave is a triangular, body sized tube that after a couple of metres turns sharp left and becomes too small. In wet weather a respectable flow of water disappears into it.

Next day there was no support for Rana so Paul and the writer drove north to Durness and Smoo Cave. Here they abseiled the 24m deep Falais Smoo (Chimney of Smoo) directly into GSG member Colin Coventry’s inflatable dinghy which he

had paddled across the lake chamber below: he runs short tourist trips in the cave. After inspecting his dig above the flowstone barrier at the end of the large inlet stream passage they were ferried out to the landing stage at the Starrsach (cave threshold) before heading to the Smoo Cave Hotel for replacement of lost body fluids. Earlier in the day a salmon sandwich had been purchased here for Colin’s lunch and delivered to him by the simple expedient of chucking it down a skylight in the roof of the cave - ‘fast food’ indeed! The extremely dry conditions had made today’s abseil a pleasure as usually the whole of the Allt Smoo stream accompanies one down the pot making the descent spectacular, noisy and bloody wet.

Back at Rana on May Day, after a diversion to clear some 3m of spoil from Three G's Cave, Paul and the writer continued digging, rock breaking and bag filling at the bottom while the engineers fettled away above them. The three G's themselves later assisted and, watched by a golden eagle, 70 kibble-loads of spoil were



**Overall view of the dig at Rana Hole
Photo: Paul Brock**

winched out. The Mendip duo walked back down via the ridge of Beinn an Fhuarainn surrounded by spectacular vistas and feeling too warm in T-shirts at 7.30pm! They were so impressed that they mobile-phonned the absent Jane Clarke to describe the view and inform her what she was missing. Photos were taken as evidence.

The walk up the valley was almost too hot next day and it was good to get underground. Another 70 loads of spoil and one toad came out courtesy of the new winch - the 'Fluxcavator Mk.5'. Tony Boycott, Jayne Stead and Julian Walford assisted Norman, Paul and the writer today and the others went walking or climbing in the continuing heatwave. Sunburn was suffered by several of the team!

winch, as A.N.U.S. Cave and Three G's Cave were being visited, photographed and dug. A large team made up for this on 4th with Ivan Young, Norman and Paul below and Mark, Julian, Philippa, Tony and the writer on cycle duty. 120 loads came out including a large, netted boulder and several drums of water. The rather obvious spoil heap was pretty much levelled at the request of George Vestey, the landowner. He is happy with the dig as long as his deer are not molested. As if...

Julian, Mark and your scribe returned on the 3rd to fettle, bail and dig. There were too few people to

Another 70 loads came out on the 5th when Norman, newcomer Caroline Stubbs and your scribe went below and Mark, Paul, Ivan, Philippa and Julian put up with the gradually changing weather conditions on the surface. This was the last day and with a total of 347 loads out and the eventual perfection of the new hauling system all were satisfied. The site was 'put to bed' and the redundant tandem winch painfully wheeled back down to the road before celebrations took place at the Inch. Richard the landlord was not well today after having overdone it with hotel residents and Jamaican reggae band the Skatalites* until 5.30am.

During the week Simon Brooks and the Glanvills dived in Claonaite with Fraser Simpson videoing and Simon also dived and dug underwater in the Cnoc nan Uamh system upstream sump. A few other minor caves were visited and Hugh Penney, Marco?, Carol Walford and Kate Janossy got some climbing in. A magnificent week - and not a midge in sight!



**A thirsty man but nattily dressed!
(The colour scheme is spectacular. Ed)
Photo: Paul Brock**

* 'The Skatalites meet at King Tubby's' is a particularly good album featuring the fine drumwork of Leroy 'Horsemouth' Wallace.

ALVA SILVER MINES - ERRATUM

Due to a computer error, the survey showing the elevation of Mine No.1 at Alva was displaced in the last Bulletin (3(2) page 24). The correct drawing is reproduced below with apologies.

Also, arising from comments I made at the end of the article regarding the blocking off of some horizontal passages, I received the following letter which is reproduced by request:

“Dear Alan,

Alva Silver Mines - The Woodland Trust Perspective

Thankyou for sending me a copy of your Bulletin containing a description of your exploration of the Alva Silver Mines at Wood Hill. Your report was very interesting but I was disappointed to read the comments in your last paragraph and your references to land managers’ ‘hysterical fixation with public safety’. The Trust tries to take a balanced view of risk which I hope is not hysterical, and in this context I feel I need to make several points:

- * From the descriptions of the workings they are quite extensive, and you make references to vertical drops, rubble slopes and in one case a submerged vertical shaft. I find it difficult to equate these with safe public access, or your statement that the mines are ‘in good repair’.

- * I would welcome a situation in which some of the workings could be made safe enough to be left open for informal public access. However, we do not have the expertise within the Trust to make the judgement on which parts of the workings may be safe or otherwise, and could not justify the expense of the regular inspections by experts in this field that would inevitable be needed. As a charity whose prime objective is woodland conservation our limited resources have to be spent mainly in this direction.

- * I would also welcome a situation in which we could fit lockable gates to all the entrances to allow controlled access by organisations such as yourselves. Again, cost is the factor here and I am compelled to use the cheap but inflexible solutions of simply fencing or bricking up entrances.

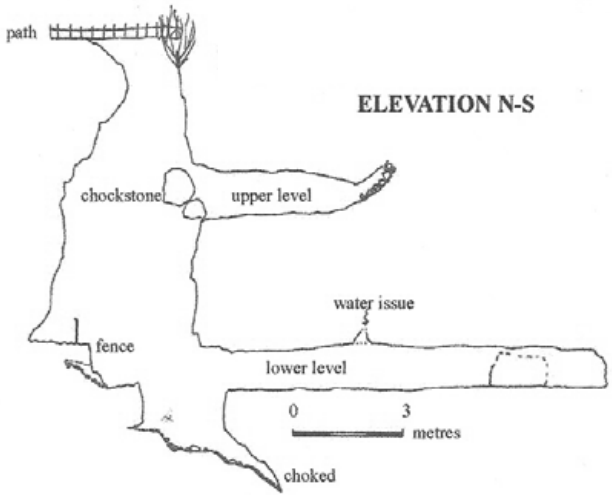
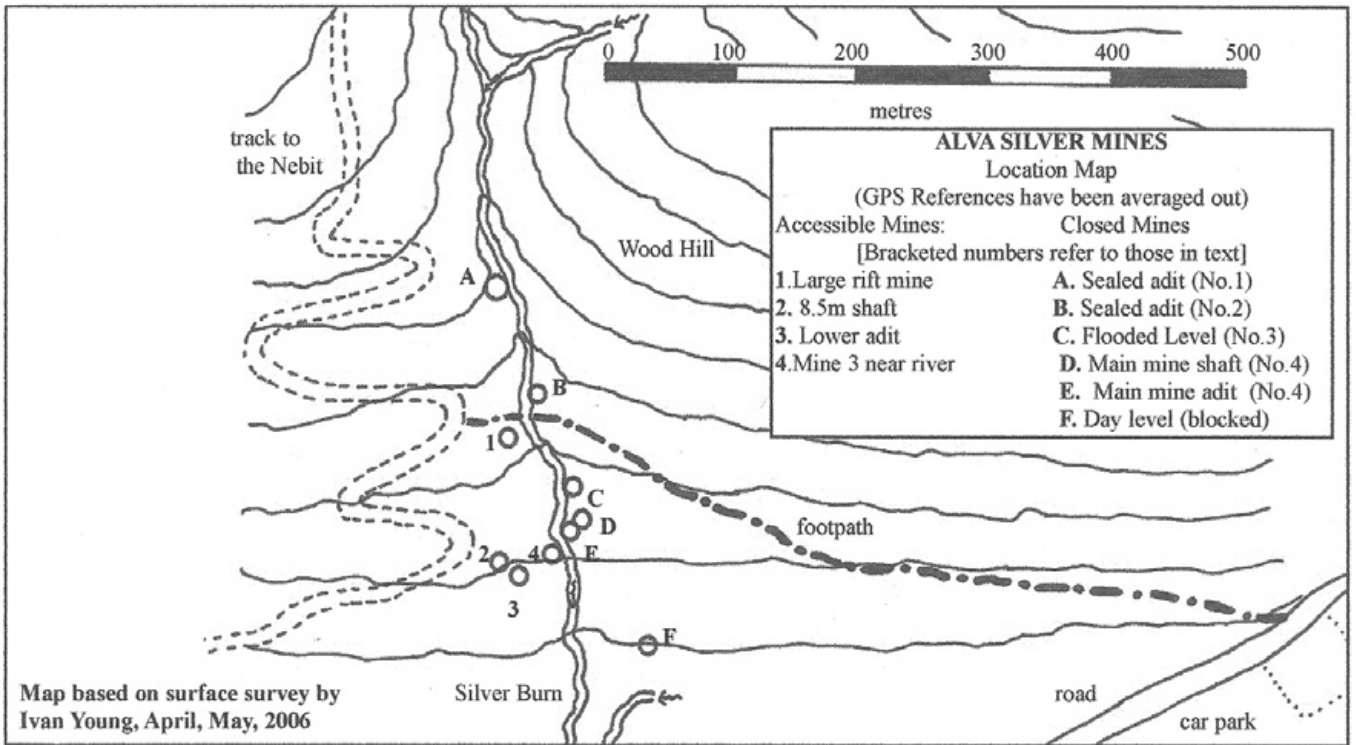
I’m aware that the mines are of historical and local interest and one of the Trusts’ management principles is to identify and protect historical and cultural features in its woodlands. If your members know of any organisation who might have the knowledge and access to funding to help us make the mines more accessible and to help interpret them to the public, then I would be keen to pursue this.

Given the strong comments in your article, I hope that you might give this letter a space in your next bulletin.

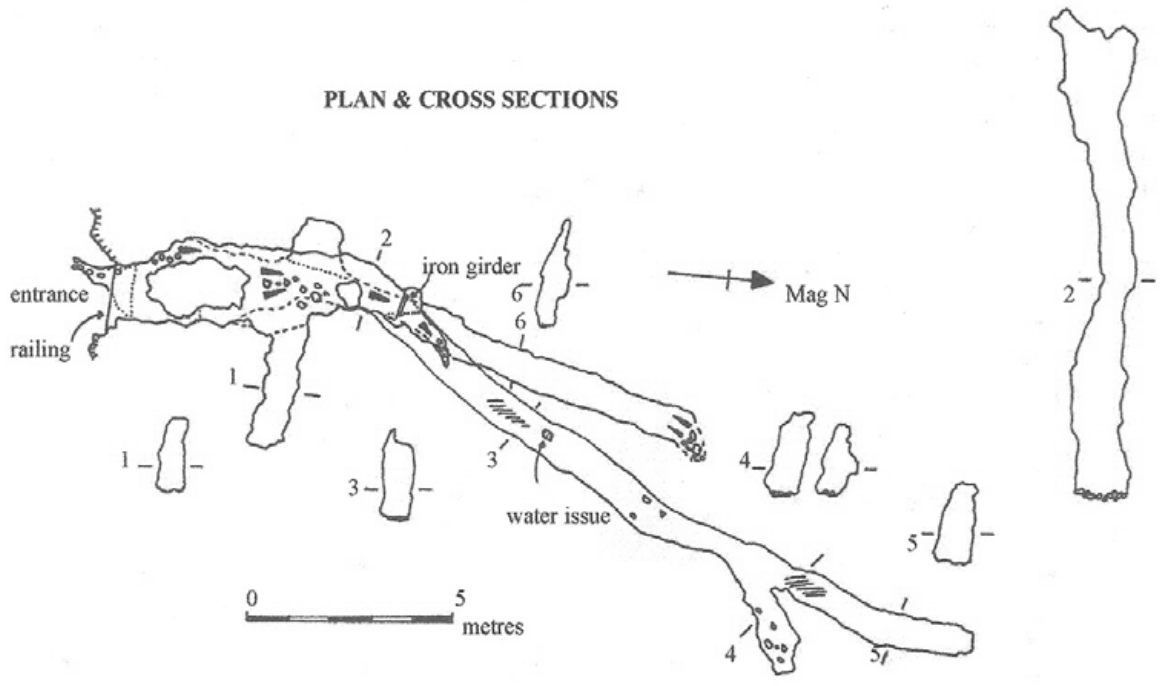
Yours sincerely,

Roy Barlow”.

I have replied to Roy answering some of the points above and we have exchanged an amicable on-going correspondence on the matter. The question of funding gates for the mines is probably not solvable in the foreseeable future unless someone out there knows a way to help. An interpretive notice board on site is another matter and might be achievable if there is sufficient interest. Comments welcome.



ALVA SILVER MINE 1
Alva Clackmannanshire
NGR NS 8917 9768
Alt. 135m (approx)
Surveyed April, 2006; March 2007.
A. Jeffreys, P. Ireson, M. Lonnen, I. Young
BCRA Grade 4D



A LOOM WITH A VIEW - The Knockan Hut 1966-2007

By Alan L. Jeffreys

When the GSG was still wet behind the ears, Sutherland seemed an almost impossible distance away from Edinburgh especially when most of the members did not possess cars! In July 1963 an opportunity arose for me when the Royal Scottish Museum, where I then worked, mounted a mini expedition to Allt nan Uamh in order that Dr Arthur Clarke might conclude an excavation of Bear Cave, retrieving a fair collection of brown bear bones and other material (*see* Bulletin, 3rd Series Vol.5 No.1 (1999) pp 24-27). Three of us, Dr Clarke, Malcolm Seymour and I were obliged to camp at the foot of Allt nan Uamh, just before the waterfall pool in an idyllic spot now largely ruined by alterations dictated by water supply to the now defunct fish farm. I managed to spend a little time examining the potential of Assynt, and with assistance of a wire ladder borrowed from the B.S.A., Arthur Clarke and I bottomed Uamh an Tartair near Knockan and also explored A.N.U.S. Cave (a convenient lunch break from digging Bear Cave).

Driving north at that time was still a horrendous experience of single track roads, a zig-zagging A9 and trawls through every town of consequence en route. The almost total lack of public transport further west from Inverness at weekends meant that a year passed before club members returned to Assynt for a couple of weekends spent on underground sightseeing. Then in October 1965 Les Henderson and I travelled there in Les's faithful old Bedford van, in which we slept. Our efforts were rewarded by what was probably the first trip into the far streamway of Uamh Cul Eoghainn and instilled in us a realisation that the Knockan massif was far from worked out and offered prospects of new discoveries.

It was therefore seriously targeted in April 1966 by Peter 'Snab' MacNab and Les Henderson, who organised themselves for a fortnight's moor bashing. Having chatted up old Jock Beag at Knockan hamlet, they were invited to camp near his house and, arising out of what became a very whisky-flavoured association, conversation regarding finding a proper base in Sutherland led Jock to suggest they ask his neighbour Dick MacLeod, who had a weaver's shed near the road. Dick visited the campsite and readily agreed to give us use of the hut, local currency (bottles of whisky) being employed to close the deal!

Thus the GSG became the proud occupiers of a spacious, stout, wood-lined corrugated iron shed, cluttered with the wreckage of a large loom, a spinning wheel and buckets of copper sulphate and other dye making crystals. There was a hole in the back wall, used - and probably engineered - by occasional passing tramps, and one very pokey window at the front (another was boarded up), but with driving, horizontal sleet or clouds of midges to contend with, it was heaven to us.

Very soon members were transporting material north. These were days when the club owned a seven and a half ton ex-army lorry and by September 1966 a collection of mattresses and bed frames had been installed on the floor, and primitive calor gas cooking facilities provided. Very little changed for a year or two, although the hut was well patronised by cavers from as far away as Somerset. The next big step change came in the early 1970s, initiated by Dick removing the loom and weaving equipment. Impressed by the amount of space this freed up, I laid plans to convert the shed into a proper hostel. Two lucky breaks occurred in Edinburgh. Firstly, rehearsal rooms of a drama company I belonged to were scheduled for demolition. They contained, in a dusty back room, a quantity of old civil defence wood-framed single beds, folding tables, benches and army stretchers. Loading this monstrous pile of domesticity onto my groaning Ford Cortina roof rack, I drove north to bring ann



The hut before bunk building. Bed frames were simply laid on the floor.

**L-R: Andy Reid, John Manchip, Phil Coles (?BEC)
Tony Meadon (?BEC) Photo: unknown**

element of civilisation to our hut. The second break came when a huge flour mill near Leith was demolished by blowing it up. I discovered that storage rooms within had been made entirely of wood which now lay



**Rear of the hut in 1974 showing the pantry door.
Left to right: Peter Dowswell, Phil Barton (?)
Photo: Dick Grindley**

around in profusion, and the acquisition of magnificent 3x2” timbers allowed me to construct bunk frames incorporating the beds, long cooking surfaces and a proper repair to the back wall where a full size pantry door was fitted.

By 1970, our Edinburgh house had undergone a kitchen conversion, releasing a sink unit and cupboards which I also took north, along with two ‘picture’ windows, ‘acquired’ from empty tenements in town. One of these fell off my vehicle in Edinburgh and was smashed but fortuitously the old club ‘local’, The Traveller’s Tryst, almost next door to our one-time caving rooms in North St Andrew Street, underwent a make-over, and I negotiated

release of a stout decorative window from above the front door. This was a panelled affair with a thistle engraved on the central panel. Gas ring work surfaces and a ‘square’ of six bunks had been set up by Hogmanay 1970 and a working week in June 1971 saw me cutting out and fitting the thistle window frame, screwing shelf units to walls and blocking off sundry draughts with heavy polythene and a staple gun. It should be noted that when we first occupied the hut, there was a proper wood staircase leading up to the loft and bunks had to be erected to accommodate it.

Although there was of course no water or energy supply to the hut, the aluminium sink unit was installed, connected to a primitive soak-away outside the window. Water was carried and stored in large polythene containers, re-supplied either from an external tap at Inchnadamph or a spring near the visitor centre at Knockan Crag (latterly a toilet facility as well). Calor cylinders were connected to a series of gas rings. During this decade, members from Edinburgh and Thurso decided to reconfigure the bunks by dismantling the staircase to acquire more long timbers, and making a two-level, multi-bunk structure that obtained until the hut was finally cleared in 2007. Access to the loft was via a rigid iron ladder. Around this time other features were added - a gas cooker, a gas-driven fridge and calor lighting, originally used in a caravan, which made a tremendous difference. Heaters and other equipment, ‘released’ from Napier College, also made their appearance. At about this time a small window was installed in the south wall to illuminate the loft space, which was panelled with hardboard and floored with mattresses. A crowning glory was the acquisition, from New Restalrig Church in Edinburgh, of a working harmonium which has graced several annual dinner sing-songs and provided those of a musical bent with something to doodle with during idle moments.



**Toilet block under construction, 1976.
Left to right: Bob Mehew, Martin Mills.**

Photo: Ivan Young

Following all these improvements only one further development is of interest. In 1976 a decision was taken, following comments from Highland Regional Council, to construct a toilet facility onto the back of the hut which fortuitously would utilise the already existing hole in the wall. A breeze block lean to was designed by Andy Peggie and swiftly built, provided with two cubicles and, thanks to a donation from Pegasus Caving Club, a chemical toilet. Members were left in no doubt that this was to be used only in dire emergency with the user responsible for emptying it! [see appendix 2] It quickly fell into disuse and the lean-to served as storage space but, more importantly, as a stabilising factor for a hut increasingly rocking during high winds.

Despite its drawbacks, the Knockan hut was held in warm regard by all members who used it. Character oozed from its very walls. Boasting (rightly) the best view from the front door of any caving hut in the UK, its very cosiness gave it its charm, although after cold winter nights it was not uncommon to find soup frozen in dishes, and if one arrived in a blizzard there was usually a snowdrift lying across the floor behind the door. Still, once a dozen or so cavers were ensconced, and the propane heater fired up, things got quite civilised and this writer at least has fond memories of lying in a warm dry sleeping bag being lulled to sleep by torrential rain hammering on the corrugated iron roof. This had its uses - a day's caving could be planned with intimate knowledge of overnight weather - but there was, of course, always the drawback of having to go outside for a pee!



Dining in the Knockan hut, 1988.

L.-R. Sheila McCutcheon, Gerald Dobbie, Tony Lymer (Hewlett Packard non-members)

Photo: Ivan Young

Many happy and bizarre happenings colour recollections of Knockan. Such as one night before the bunks were built when a young Andy Reid, having gone out for a pee, suddenly appeared in the doorway stark naked, dancing to Jethro Tull whilst illuminated by caving lamps from persons lying in their sleeping bags. Or a lone, half-starved Brian Reid who, locked out of the hut one winter's night had to force entry through the back wall. Lying on the floor shivering and hallucinating from lack of sustenance, he was graced by the vision of an old grey bearded man who told him "Not to worry". Seems to have worked, as Brian survived! Or the traverse of the roof in 'jock strap and sandals' when Maureen Penman did just that, revealing all to awestruck onlookers. Or the time weary cavers returned to find a flock of sheep filling the hut, invited in by one member's young offspring. For some years it was traditional, on returning from the Inchnadamph Hotel of a Saturday night to do the 'Chicken Run' without getting changed. This involved crawling into a culvert across from the car park (without lights) to emerge from a large concrete pipe below the road some 80 yards later. Another tradition was for each occupant to throw a dart at a photograph of Andy Reid, tacked to the loft wall. The origin of this practice arose from a couple of unpaid and forgotten debts Andy had incurred within the club. (When the time came I tried to rescue the remains of this photo but it fell to pieces from so many pin pricks. Regrettably, the blackened and indecipherable 'Potholers Read This' sign similarly fell apart - it was chipboard destroyed by damp - before it could be saved for the club museum.)



Kitchen area, late 1980s. Note the propane heater which doubled as as the fastest toast maker in Britain! L-R: Julian Walford, Peter Dowswell, Ivan Young.

Photo: Alan Jeffreys

I am not sure what the accommodation record was. For one annual dinner I believe over 25 people stayed there on a Friday night, although that *was* quite exceptional. Fifteen was normal, despite protestations by the Council although to be fair, they never really bothered us about it. As for the animal residents, well they had a field day. Setting aside sundry insect populations, and the ingress of the odd rabbit or carnivore, there was a continual problem with mice, as the graphic score drawn on the toilet door by J-Rat testifies. With a hut so full of sprung joints their depredations were inevitable and at least they were clean after consuming



The final bunk configuration. Note the Andy Reid photo right of the hanging dishcloth. L-R. Ivan Young, Boffin-the-Dog. Photo: Alan Jeffreys

quantities of soap stored there.

A lot of the foregoing reminiscences are, in a sense, prehistoric but on 3rd March 1977, Julian Walford and Bob Mehew provided a log book for all users [subsequently published in June 1992]. Within its pages many visitors expressed their appreciation of the hut with comments such as: “A big thank you to the club for the privilege of staying in this fine hut” but I think my favourite entry came from Malcolm Stewart dated 30th December 1988:

“Arrived at the hut at 3pm to join CCC although none in hut. Went to fish farm and Inch but no sign of them. Returned to hut and unpacked car. Decided to have a cup of tea foodbox. Re-checked car...no foodbox. Re-check hut.... no

foodbox. Conclusion: have left all food in Edinburgh. Shit, shit, shit, shit, SHIT. I spent f**k**ing hours sweating round Safeways collecting that lot. Bugger (BUGGER). Repack car; return to Ullapool. If no food available, return to Edinburgh. Damned if I’m staying in Sutherland over New Year without my black bun. (BOLLOCKS). 4.30pm.”



By the end of the 1980s, ‘character’ was evidently the chief factor keeping the Knockan hut standing and since the building was not for sale, the club cast around for a suitable alternative. Following an EGM held at Inchnadamph, the fateful decision was taken to purchase a croft in Elphin and work commenced thereon 3rd March 1990. After that, residence at Knockan gradually declined, with most members using Taigh nam Fadh regularly from 1993 onwards, although Knockan was still used as a quiet ‘overflow’. For the past few years it has seen virtually no activity at all. The sink unit filled up with dead bluebottles and mouse droppings, corrugated iron sheets fell from the walls and

“Only with beauty wake wild memories - sorrow for where you are, for where you would be” (Walter De La Mare). The cleared hut in 2007. Photo: Ivan Young

gaps between walls and floor allowed free access for larger wildlife. Sadly, the hut is rotting where it stands and in 2005 the committee passed a resolution to clear out all GSG material and hand the building back to its owner Dick MacLeod (or at least tenant; there is some debate as to whether the actual owner is the Assynt Trading Company). This work was completed by 22nd May 2007 and a forlorn, empty husk of a shack now awaits the next phase of its limited life, which may be use by Helen McQueen, its B. & B. neighbour at Greenside.

We owe a very deep debt of gratitude to Dick for providing us with such a fine base for over 30 years. Although originally we used to levy 1/- (5p) per head per night to be paid to Dick, he soon quashed this practice, stating he did not want to accept any rent for the premises. Almost uniquely therefore, the club had free use of a field base during a period when money was scarce, and travel costs soaked up a large percentage of what was available. During demolition of fittings, I was struck by how much of it I had provided and built myself. Virtually everything, apart from the fridge, the big propane cylinders and some mattresses, had been

transported on my suffering roofrack, so my own investment in Knockan has been massive. It is with great fondness that we bid a final farewell to The Loom With a View. We shall not see its like again.

-----oOo-----

Appendix 1.

Original documents relating to the Knockan Hut held in Club Records:

1. Correspondence with Dick MacLeod and George Manchester (Assynt Trading Company) and Papers relevant to Valuation Roll and ownership of Knockan Estate.
2. Knockan Logbook 1977-1991 [published 1992]
3. Knockan Hut Log Volume 2 1991-1994 [published 1995. A few additional entries dated 1998 are also in this volume, which embraced both huts].
4. Visitors Book [from 15.10.71-16.5.99. Regular entries cease 21.10.94 when a new book was opened at Elphin. There are eight further entries between May 1995 and May 1999].

Many of the distinctive notices and decorations which adorned the walls and roof have been preserved in the club museum or stored at Taigh nam Famh.

Appendix 2.

Peter Dowswell's caveat regarding the chemical toilet:

Defecation

To those considering defecation,
 I offer this little peroration:
 When dealing with matters alimentary,
 One should not remain sedentary,
 But up the hill some distance make,
 To some appropriate hidden shake.
 Here the contents of your bowel,
 May be interred with hand or trowel,
 Or else when leaving things to rest,
 To leave no turd unstoned is best.



The passing of the seasons at Knockan. Top, Greenside before demolition and re-build. Below, a present day view of the hut.

Photos: Ivan Young; Alan Jeffreys



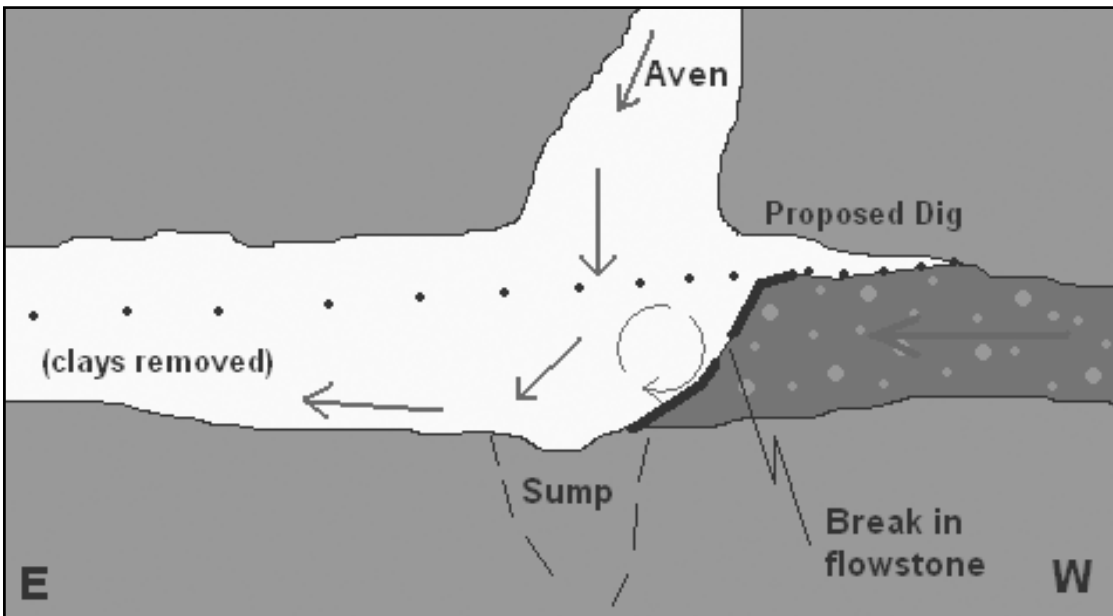
Why we needed a hut in the first place. The Bear Cave campsite at Allt nan Uamh, July, 1963. Malcolm Seymour in background.

Photo: Alan Jeffreys

Smoo Cave

After looking at the dig above the terminal sump at Smoo Cave, I think that the clay deposit directly behind the main flowstone is a large stream deposit. Colin Coventry argues that a small hole lower down the flowstone (about head height from stream level) is just more flowstone but when I was there in July I was able to find some clay deposits with both large and small well-rounded pebbles of quartzite and limestone from this hole - indicating a reasonably large stream deposit behind most of the flowstone. A small probe into this hole showed at least 6 inches of clay before hitting some tougher rock - whether this is the back of the chamber or a larger boulder in the deposit remains unknown, although a boulder is most likely. Close inspection of the flowstone shows several large boulders cemented together by the flowstone, similar to the flowstone where Colin docks his boat on the stream chamber side.

Colin's proposed dig at stream passage ceiling height remains the best bet but this deposit half way down the flowstone makes me think that there could be a vertical column of stream deposits at least 3 metres thick, again indicating a major stream deposit and hence a significant continuation of the stream chamber westwards. The aven lies directly below the garden of the B&B on the surface and some small shake features can be seen around a small limestone hillock behind this B&B where the path of the proposed passage would be found below.



A thought I've had is that this clay deposit may possibly have once filled much of the Smoo stream chamber. The younger active aven waterfall would then have removed the downstream clay deposits, but left the clays filling the chamber behind any plunge pool. This thick remaining clay ramp with an upper boulder deposit would then have provided

Diagram: Large stream once flowed through back chamber, now choked from heavy deposits. Open passage cleared by inlet down aven.

a suitable platform for flowstone to precipitate upon. I believe that the boulder layer the flowstone has cemented together is more likely to be a large flood deposit (a layer within the clay) rather than boulder fall from the waterfall aven above. Therefore the choked back passage would be older and possibly the choke itself may have caused the re-routing of water to form the aven waterfall.

The sequence of events would thus be:

1. A large stream flowing through the back chamber (now choked with heavy deposits).
2. Chokage causing shutdown of back chamber.
3. (Re-routing of water causing?) formation of waterfall in passage roof.
4. Removal of downstream clays (via passage, sump or both) - forms clay ramp behind waterfall.
5. Shutdown of aven waterfall due to blockage.

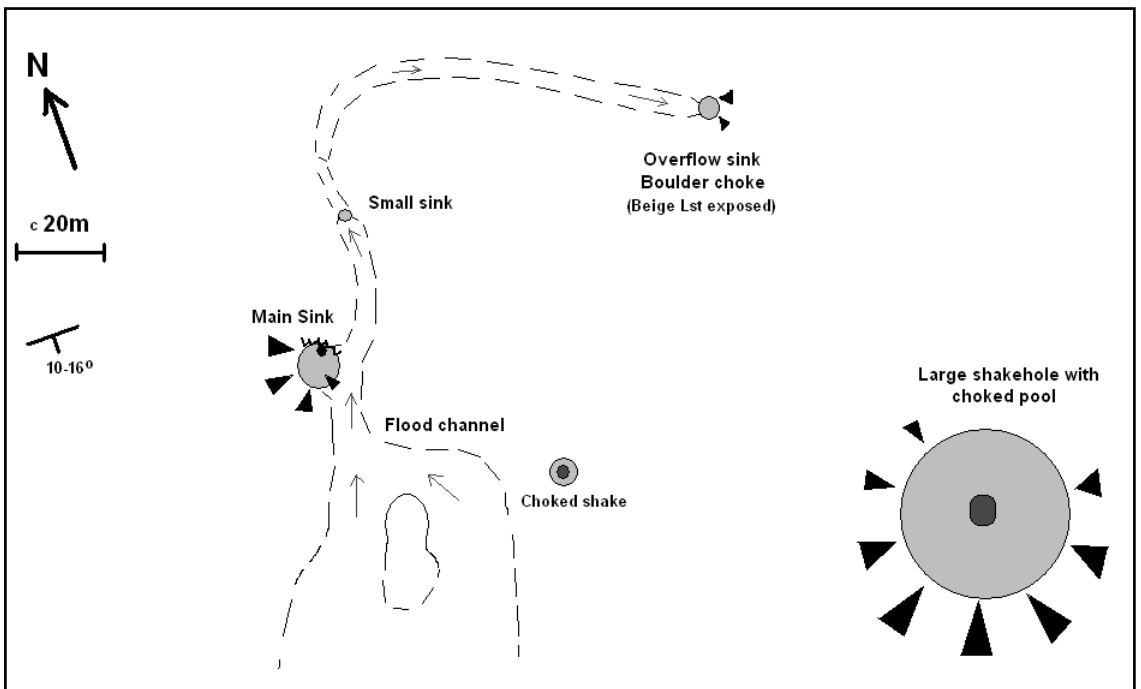
- 6. Precipitation of flowstone over clay ramp.
- 7. Possible late upper-stream reactivation forming small passages through clays and flowstone (especially at top/proposed dig site).

Druim Bhlar Flood Sinks, Durness

One thing that I noticed Colin hadn't reported along with his Smoo dig (that we think is a 'go-er' behind the stream passage flowstone) was that a large flood sink has appeared within the last couple of months near to his house at Druim Bhlar, Durness.

A couple of well choked flood sinks are present in a nearby peaty flood channel that I always thought were digging prospects, but now the main, previously hidden flood sink has appeared after a large peat bank collapse. The peat hole is about six metres deep and over five metres in diameter. Some bedrock can be seen at the bottom with some large quartzite chert blocks. The main open hole at the bottom of this pit is about one metre in diameter and appears to level off, the catch being that there are over five metres of peat and till deposits hanging above the passage opening.

A lot of water appears to be flowing into this sink during flood but it is completely dry during normal conditions, making it one of the best (if not THE best) dig prospects around Durness at the moment. Half a dozen large shake-holes can be found between this sink and the Allt Smoo leading into Smoo Cave. The trouble



Sketchmap showing location of Druim Bhlar Flood Sinks, Durness

is that the ceiling would need to be supported to have a chance of any digging.

The DB flood sinks seem to be half-way between a larger system to the east towards Sangomore and a series of shakes that are probably linked to the Smoo system. I find it interesting that the DM flood sinks are in a doline-poor isolated patch between the two. It opens up the question: are the two shake clusters linked with Smoo?

Note: The beige limestone outcrops seen at the base of the overflow flood sink are one of the marker horizons for the top Sangomore Formation of the Durness Group (as opposed to Ghrudaidh and Eilean Dubh in Assynt). This indicates two main points: (1) The Durness Group here is at least 350m thick (stratigraphic thickness will be more, taking into account a c. 15 degree SE dip of rock) and (2) less than 50m below this marker, is one of the few zones where the true limestones are found in the Durness Group. This is similar to the limestone pavements near Keoldale, Durness where the largest sinks appear where there are outcrops of the limestone zones of the Croisaphuill Formation. *The most soluble parts of the Durness Group are the uppermost Sangomore and Croisaphuill Formations where the only limestone is found.*

THE TAR TUNNEL

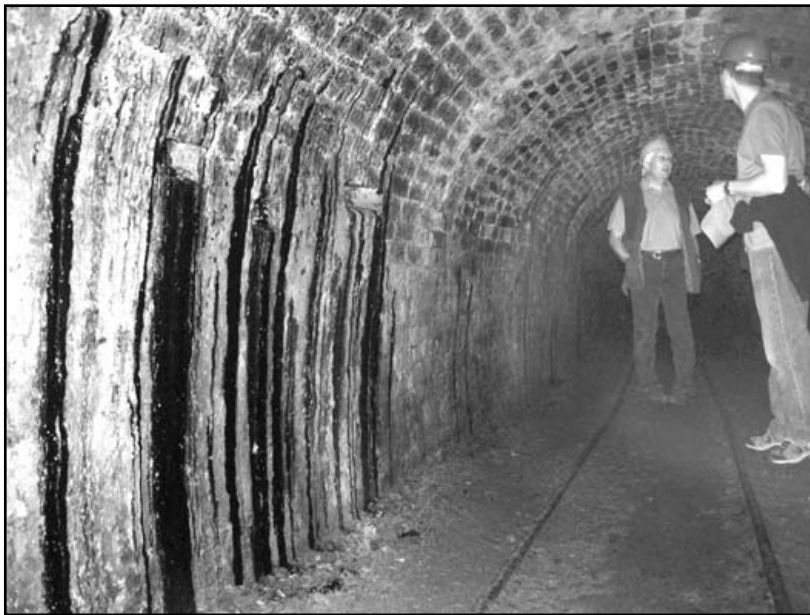
By Alice Dowswell

“In 1965 the Shropshire Mining Club persuaded the owner of the village shop at Coalport to allow them to explore the darkness which lay beyond a door opening out of his cellar. They were confronted with a brick-lined archway and heaps of rocks and clay strewn around the entrance, but tar could be clearly seen seeping from the wall. The discovery confirmed stories of a tar tunnel, dug at the height of the Industrial Revolution, and at the time regarded as one of the wonders of the Severn Gorge.”

Taken from an explanatory panel in the Tar Tunnel ‘museum’.

The tunnel was created in 1786 by William Reynolds, a local entrepreneur, who wanted to build an underground canal to link the nearby coalmine shafts of Blists Hill to the Severn. About 300 metres into the tunnel, his workmen hit a spring of tar or natural bitumen and Reynolds decided to extract and sell it. Outside the mouth of the tunnel, it was boiled to convert it into pitch for timber preservation. It was also processed for use in lamps or as varnish and some was even made into ‘British Oil’ used for treating rheumatism.

For several years after it was discovered, over a thousand gallons of bitumen a week were collected, but the supply diminished, until around only ten barrels a year were extracted in the 1920s. Tar sales stopped in the 1840s and by 1847 a house had been built over the entrance, which could then only be reached through the cellar.



A view of the Tar Tunnel. Note tar seeping out of the bricks on the left wall.

Photo: Alice Dowswell

The tunnel, which was reported in the 1790s to reach around 1110 yards (1006 metres), remained in use by the local coalmines until the 1930s and was an air raid shelter during World War II. It was then forgotten until its rediscovery by the Shropshire miners in 1965.

Visitors can only enter the first 100 yards (92 metres) of the brick-lined tunnel, at the end of which is a locked iron gate, but all along the walls tar can be seen (and touched!) seeping out and there are two illuminated tar wells along the tunnel. It's worth the detour from Ironbridge (if the more direct road along the Severn is closed). It is much less touristy, and at £1.75 it's cheaper than a coffee *and* you get a choice of coloured hard hats to wear.

And there's a pub across the road that does a good pint of Sunchaser.

-----oOo-----

Note: Consultation of Shropshire Mining Club's Yearbook for 1965-66 revealed only one small reference to their work in the Tar Tunnel. On page 33 it is stated that in June 1966 a roof fall was cleared at the back of the tunnel after four hours, but some 20 yards further in another, impenetrable fall was found and the trip abandoned. Reference is made to a trip in May of that year (not recorded), but no mention of the 1965 discovery was found.

Ed.



**Annie Audsley Cleaning
Linhouse Water Shale
Mine, June 2007.**
Photo: A. Jeffreys



**Dave Morrison and Richard Simpson in the
entrance passage, Cave of the Queens, Kishorn.**

Photo: S. Brooks



**An Acidic Pool and Limonite Flowstone,
Parys Mountain Copper Mine, Anglesey.**

Photo: A. Fuller-Shapcott

**Pete Ireson in a Crawl,
Rift Pot, Gragareth,
May 2007**

Photo: M. Lonnen





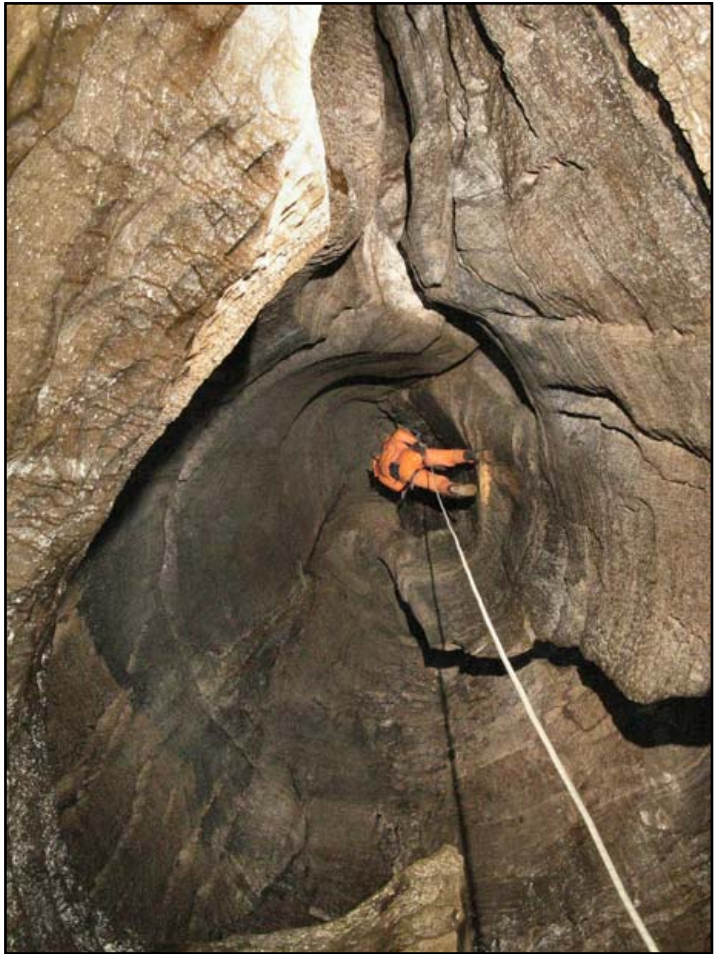
Mark Lonnen Drilling Hole for Eco-anchor in Uamh nan Claig-ionn, Argyll. July 2007.

Photo: I. Young



A N.U.D.E.S. trip in Allt nan Uamh Stream Cave by members of GUPA. L-R Dan McNulty, Sarah Newton, Sarah Robertson, Michael Popland, Jude Pullen, Jeremy Green.

Photo: Hugh Penney



**Derek Pettiglio Descending Shaft in
Notts Pot, July 2007**

Photo: P. Ireson



**Rebecca Carter on First Pitch,
Tatham Wife Hole, June 2007**

Photo: P. Ireson

DIVE REPORTS - SCOTLAND APRIL 2003 TO MARCH 2007

By Simon Brooks

Uamh Tobair Dhuibh (Cave of the Black Well), Appin. NGR NM 983515

Saturday 29th April 2005.

Divers: Simon Brooks and Dan Harries.

This is the resurgence for Claig-ionn, Scotland's deepest pothole and whilst a GSG 'Cast of 1000s' filled Claig-ionn in a pre GSG Annual Dinner trip, Simon and Dan decided to avoid the queues and check out the Black Well, this site having been dived by GSG members several times some years previously. Simon entered the sump that began as a pleasant elliptical 1.5 x 4m flooded pot. Descending this he reached a sloping mud floor at -4m depth and followed a gently descending passage 1.5m x 1.2m for 8m to reach a small impassable clean washed triangular hole (0.2m x 0.1m) at -6m depth through which all the water was emerging. The sump was thus 12m long and -6m deep with minimal chance of further extension. Dan then dived to confirm Simon's findings. This sump seems to have altered little since it was originally dived but it is always worth checking these things out.

Uamh Steall Na Burich (Cave of the Roaring Waters), Glen Stockdale, Appin. NGR NM 95914995

Monday 27th October 2003.

Diver: Simon Brooks. Support: Tony Boycott, Dave Hodgson.

Tony Boycott and Yorkshire Dave kindly assisted Simon to the sump whereupon Simon dived and followed the in-situ line that had been laid by Malcolm Stewart in the 1990s. This line proved to be in good condition and steady progress reached end of line and lead weight at 40m into the sump at a depth of -13m. A possible way on could be seen ahead through a small triangular squeeze but would require digging. A narrow rift in the left hand wall was also noted that appeared to enter a small chamber. This was not entered due to air margins being reached. A return was planned. Many thanks to Tony and Dave for the carry.

Uamh Steall Na Burich, Appin.

Friday 29th April, 2005.

Diver: Simon Brooks. Support: Mark Brown.

Simon and Mark stopped off in Appin on the way north to join the annual Mendip Migration in Sutherland. Walking in from the southern end of Glen Stockdale Mark assisted Simon with the equipment to the cave and then to the sump. Simon dived finding the passage choked with gravel at -9m. This was dug open allowing him to reach end of line at -13m. An attempt was made to dig through a silt bank and the triangular squeeze noted in October 2003 and continue onwards and downwards. 3m of progress was made however the silt proved very compacted and a digging tool would be required to continue further. The narrow rift in the left hand wall noted in 2003 was also entered but proved tight. Air margins were reached before this could be passed due to air wasted digging through a choke in main passage on the way in. A return is planned as this sump clearly has further potential. Many thanks to Mark for the carry.

Cnoc nan Uamh, Upstream static sump, Sutherland. NGR NC 276206.

Saturday 30th October 2004.

Diver: Simon Brooks. Support: Tony Boycott.

Simon dived this foetid static sump and with assistance from Tony removed several more skip loads of peaty mud in order to make further progress through this blocked sump. To be continued. Many thanks to Tony for the carry and assistance.

Cnoc nan Uamh, Upstream static sump, Sutherland.

Saturday 30th April 2005.

Diver: Simon Brooks. Support: Mark Brown, Tony Boycott, Fraser Simpson

Once again Simon dived the still foetid sump and with assistance from Fraser removed several more skip loads of peaty mud to make a further 3m of progress. The furthest point reached is between 10-12m into the sump but still there is no sign of emerging in the open passage known to lie beyond. To be continued. Thanks to Mark, Tony and Fraser for the carry and assistance.

Cnoc nan Uamh Upstream static sump.

Saturday 24th March 2007.

Diver: Simon Brooks. Support: Mark Tringham.

Simon entered the sump to find more peaty silt had been washed in or had slumped down from the sides of the trench dug on the last visit in April 2005. More skip loads of peaty silt were extracted to reach previous limit. Despite the setback of the sump appearing to have refilled itself since 2005 the way actually appears to be gradually unblocking and thus a return is planned (see page 14). Many thanks to Mark for assistance and carry.

Allt nan Uamh Stream Cave, Upstream sump 2, Sutherland. NGR NM 27461713

Monday 1st May, 2005.

Diver: Simon Brooks. Support: Mark Brown, Tony Boycott.

Assisted into the Farr Series by Mark and Tony, Simon dived downstream from Farr Series to Upstream Allt nan Uamh 2 to retrieve a huge line reel left by Fraser Simpson several years previously.

Elphin Hole, Downstream sump, Knockan, Sutherland. NGR NC 20830933

Tuesday 2nd May, 2005.

Diver: Simon Brooks. Support: Mark Brown.

Water level some 1.5m lower than when the site was previously visited and dived with Pete Dowswell in 1999. Observation suggested that this would seem to be the normal water level for the sump. Simon dived downstream in a narrow, descending rift for 9m to reach a depth of -2.5m where the sump pinched out, continuing as a small tube filled with boulders. With the sump showing clear signs of backing up in higher flow conditions there would appear to be minimal prospects for any further extension here. With yet another Sutherland sump 'buggered' the party left the cave. Many thanks to Mark for assistance across the moor and into the cave with the gear.

-----oOo-----

BOOK REVIEW:

The Caves of Scotland: A Bibliography. 3rd Edition. A.D. Oldham (2007) Available on a CD for a small fee from 1 Riverside Mews, Cardigan SA3 1DH.

Tony Oldham has spent the last 40 years producing cave guides for many regions of the British Isles, most prolifically in Wales, and with the publication of his 'Caves of Scotland' in 1975 his attention turned to sites north of the border, eventually resulting in an updating of the 'parent' book in 2004 ('The New Caves of Scotland') and a plethora of smaller publications outlining in more detail specific Scottish areas. These books are not, *per se*, caving guides but *cave* guides, being the result of literature searches, often checked on the ground but not necessarily providing practical exploration information. In 2004 the bibliography for New Caves of Scotland was produced separately, to save cluttering up the basic work with screeds of references. As in the nature of things new information is always appearing, Tony has since produced revisions to this work and in 2007 the third edition appeared.

This is quite a massive work, with spectacular sections on, for example, Staffa and Fingal's Cave (six pages of references in 10pt type) but, viewed from the GSG perspective, I have a few reservations.

Although Tony prefaces this volume with the remark that very few people are actually interested in source material, it is an inescapable fact that non-caving researchers will inevitably treat this as a primary source. Despite alluding to our Bulletin indexes and other publications as adjuncts in the introduction, these are not necessarily easy to access without further information. For example, 'Caves of Assynt' is frequently cited in the text but does not appear in the bibliography and abbreviation section at the front, so is not sufficiently recorded. Also, a large number of caves in the main body of the work have not only been visited by the club, but adequately published by us and frequently our contributions are not listed - unless one thereafter trawls through the Bulletin indexes online. Examples where we have produced useable surveys include Paper Cave, Golspie Fissure Caves and a curious entry, Raasay Fissure Caves, catalogued not under Raasay but under Fissure (?). This latter could be a hot potato resulting in a complete publication all by itself! Individually listed caves on Staffa do not always refer readers to John Crae's articles which carry modern surveys (eg Boat Cave, Clamshell Cave etc). Some systems, such as Draught Caledonian and Chamber Pot, do not appear at all; instead the reader has to consult 'Appin, Caves of' (*ie* our guidebook) although some Appin caves *are* listed individually! On other occasions the Bulletin *is* cited so Tony cannot seem to make up his mind whether to be comprehensive or not.

In short, if this is to be a complete and reliable bibliography, everything should be cited within it, not regularly diverting the reader to parallel sources. This book renders our whole body of work rather invisible to first-time researchers using it. A further confusion arises from the inclusion, in many places, of souterrains and chambered tombs (eg Cairnpapple), even the Innocent Railway Tunnel in Edinburgh (which is nothing more than an underground public footpath) and Edinburgh Castle Fire Access Tunnel (cut to allow motor vehicles to enter the keep), none of them 'caves' by any stretch of the imagination!

On the credit side, a substantial number of caves are listed even when no references have been traced, which is a handy springboard for future research.

This is obviously a useful publication for people seeking historical background on Scottish caves but with a lot more work to properly include all speleological information, especially from the Glasgow SS and Grampian Speleological Group, it could become an essential sourcebook. I fully empathise with Tony's reluctance to poach into our published territory of regional cave guides (which is why Assynt was left out of 'Caves of Scotland') but when it comes to bibliographical principles, if one embarks on a project like this, it should be as complete as humanly possible, not one part of a triumvirate. The first edition of this bibliography showed on its cover pictures of seven publications - five of them from the GSG. Qui uti scit, ei bona.*

A.L. Jeffreys

Note: A paper copy of the Bibliography is available in the club library.

* "Good things to him who knows how to use them."

NEW PUBLICATIONS:

Index to Publications of SWETC Caving Club 1962-1981. By A.L. Jeffreys. (2007) 72pp. Detailed index of all SWETCC publications including 'Speleo', Annual Reports and Occasional Publs. £5.60 inc. postage.

Sutherland Hut Logs Vol.6 (Jan 2005-Dec.2006) Compiled by A.L. Jeffreys (2007) 44pp. Latest in the series of hut logs from Taigh nam Fadh detailing new explorations in Assynt. £5.60 inc. postage.

Both available from A.L. Jeffreys, 8 Scone Gdns, Edinburgh EH8 7DQ. Cheques should be payable to A. Jeffreys **not** to the GSG.

S.O.S. SOLOING ON SUNDAY

By David Morrison

There is a small outcrop of limestone to the north west of the Allt Fearna, which is probably part of the Beinn na Caillich outcrop. Back in 1974 Trevor Faulkner reported a sink that may be worth digging. Having walked about the area and also finding a sink some research found the report mentioned above and it became obvious that it was the same sink.

One spare Sunday I went back for a look carrying the usual ice-axe and a hammer and chisel with me. After much effort I could see some small passage, but lying head first down a wee hole in the middle of nowhere which no-one knows about seemed a bit daft. Feet first seemed more sensible. A little wriggle and a probe about with the left foot seemed to be fine until a block fell on my leg. A very quick exit was made and the thought of a Floyd Collins experience saw me safely off back home. I returned some weeks later with Ritchie and after some careful digging the passage became too tight after only three metres.

Another Sunday found me alone again, wandering about the north Ord limestone looking for Mossy Cave and anything of speleo interest. A burach about in the Extra Ord Cave found some tight passage just inside on the right but some very unstable boulders prevented me having a proper look. Downhill a slot resurgence, mentioned by Martin Hayes in GSG Bulletin October 1996, was dug into but a squeeze into the small passage was abandoned. Head first down a wee hole in the middle of nowhere.....! Off home again. Some time later visits to the south of Ord area along with Ritchie were made and all five caves mentioned in the Caves of Skye pages 55-56 were found, entered and documented. They are worth a visit if you are ticking off every cave in the book apart from Cave 3 which has small formations and is a possible dig.

Sunday again. I hadn't been to the Heaste area for a while and a wee look at the Burrell Collection seemed like a good idea, despite travelling by motor bike. I went soloing about the recorded passages before going for a walk along the low hills to the south. After some 300 metres or so, a grassy area showed some limestone on the surface while the surrounding area was covered in heather and peat, which I found unusual. A look about found a small hole above a small, tiny, resurgence that looked diggable. Having travelled lightly, I had no tools with me (bloody motor bikes) but as the hole was in small boulders I managed to haul a few out of the way and got a look inside. I could see a tiny chamber and tiny stream and lots of moonmilk. Leaving it at that, I was back a week later with digging gear and eventually gained access to the tiny chamber. The way on was up a small ramp, then some more digging in the gravelly floor would be needed to continue. I decided I'd done enough for now and would come back, hopefully with Ritchie in support. The walk out was uneventful apart from realising at one point that I was out on a mist-covered moor with no map, looking for holes in the ground and no-one knew where I was.

Ritchie and I returned the next Sunday and after a quick scrape of the floor he pushed the little cave to an end after 7.5 metres. Although short and shallow, this little cave is covered in moonmilk. Two tiny pots were also looked at on this trip but they go nowhere.

A good while back Ritchie and I had a look in Cave of Broken Glass but we never went right to the very end for some reason, so one Sunday I thought I'd go and complete the cave. I squirmed through the flat out section, wondering why Ritchie hadn't, and arrived at the terminal pool. This was so low that I could crawl ahead in the tiny stream just enough to see more passage visible. It looked like it would go if a silt bank could be dug out of the way. Having no tools and not fancying the duck to reach the bank I retreated. On the surface I followed the dry stream in which this cave is situated. Uphill I noticed a hole at the bottom of a recess in the small cliffs near the end of High Pasture Cave (H.P.C.). An awkward wriggle among stones and mud showed passage easily big enough to turn around in, if I could get in. After a lot of heaving small stones and boulders out of the hole I slipped in feet first, kicking one stubborn boulder ahead of me into the

spacious looking passage. I found myself in a chamber where I could crouch and sit comfortably and at the far end, open passage continued. I followed this for a number of metres until I came to a split level junction. Both looked a bit tight so I returned to the surface pleased with my new find. I then drove to Broadford and phoned Ritchie, telling him to get his gear ready. I would pick him up at Dornie and we would push the cave later that evening.

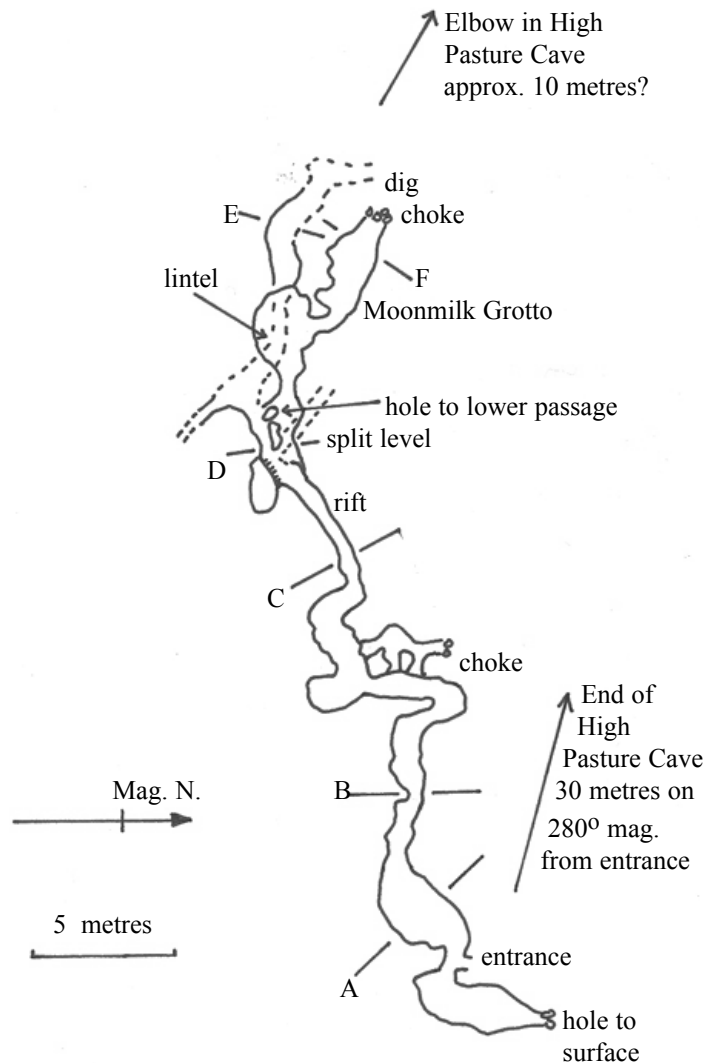
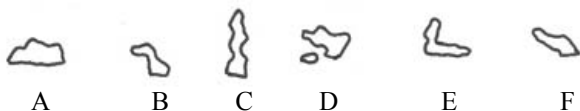
Arriving back at the split level junction I set off along the upper level, which was not as tight as I first thought. This led through a heavily moonmilked chamber to a second less decorated chamber and a complete choke. Meanwhile Ritchie had pushed along the lower passage and returned saying it got too low but was diggable. On the way out some digging downhill from inside the entrance opened up a low chamber 6m x 1.5m with a hole back to the surface. We called it Bovine Chamber after unearthing a cow's leg bone. We also decided to call the cave Iris Cave after the many iris plants around the area.

The next day, Monday, Ritchie returned alone and did some digging in the lower passage. This made it easier to reach a lintel feature which would need to be dug under to continue. I joined him in the evening and started mining below the lintel. Quite soon it looked like it would go, so giving the lead to Ritchie I retreated. He squeezed under and mumbled there was more passage but it was silted up to near the roof. As he looked about and tried to turn around, fortunately finding a tiny aven that allows you to sit up and swing your legs round, I dug out more gravel from below the lintel. Once Ritchie eventually crawled out, I popped in for a quick look....low but diggable. If some sort of bucket could be used to get rid of the spoil? I crawled out and then we line surveyed the system. We were surprised to find the total length of passage to be about 50 metres. The cave appears to be heading for the last elbow bend in H.P.C. and the survey suggested that only 10 metres (in a straight line) separates the two caves.



Robert Burrell looking at bones in high level oxbow, Iris Cave. Photo: Richard Simpson

IRIS CAVE
Coille Gaireallach, Skye
NGR NG 59572 19769
Grade 1 Survey
D. Morrison 20.6.07
Additions to Survey, 1.7.07
Grade 2

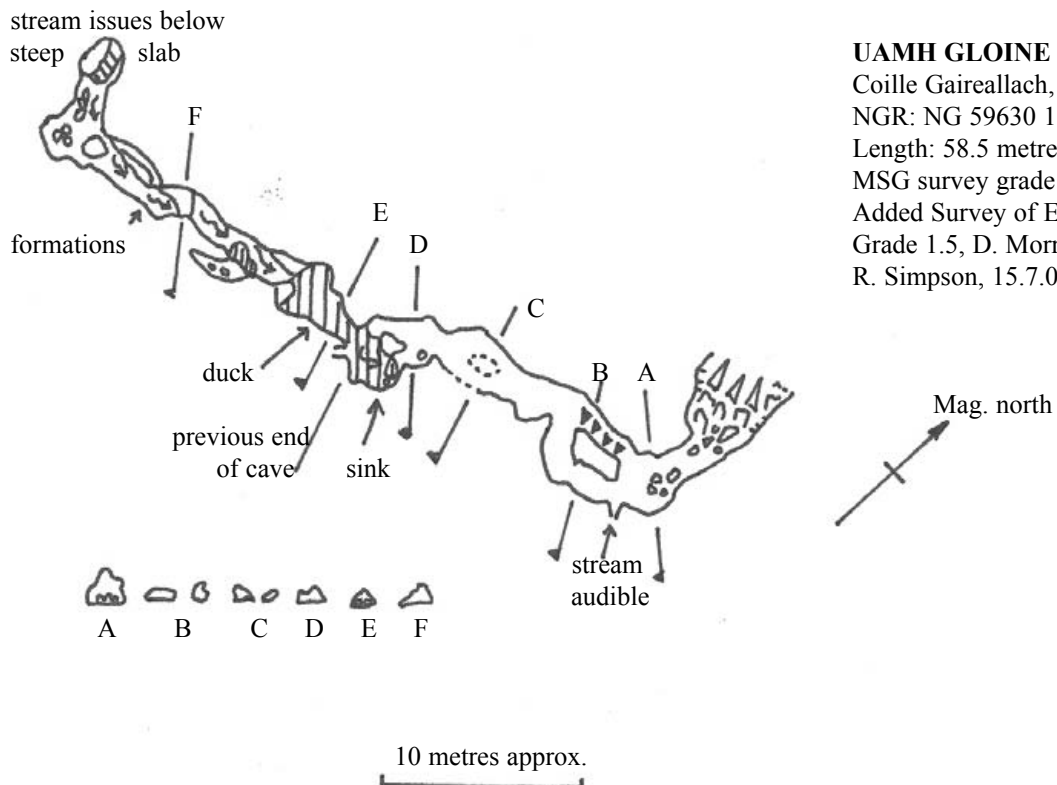


I did some surface measurements one evening, helped by my two daughters, Leah (11) who held the tape as I read the compass bearings, and Keira (5) who chased nearby sheep. I am not sure how accurate the measurements are but these put the end of the dig quite near a boulder pile at the end of H.P.C., but uphill about 18 metres.

Cave of Broken Glass (Uamh Gloine Bhriste) received a visit in order to dig out the offending silt bank. As I waited in the terminal chamber, Ritchie prepared to tackle the duck and the silt. After a quick slosh under two ducks, he shouted that no digging was needed as the cave swung right then back left and continued as a widish stream passage. I ducked through and watched as Ritchie's wellies disappeared on ahead and he was saying something about a window. I waited for a while, then heard the familiar sound of someone crawling. Ritchie re-appeared and told me that the passage had gone for another 15 metres or so. It led to an unstable chamber, leading to an even more unstable chamber where a small boulder fell on him as he exited. After that we called it a day.

A visit at the start of July by Toby Speight of the Red Rose C.P.C. found us at the dig in Iris Cave. We had some lengths of rope and a plastic basin along with various digging tools which included a hoe. After attaching a rope to each end of the basin (drag tray, skip?) it could then be shuttled from the dig back to the end of the lower passage and spoil dumped in the much larger passage beyond. With Toby digging feverishly and me dragging the full skips out and guiding the empties back in, we made slow progress. Even after being joined later by Ritchie which made the moving of spoil easier, and after he had a spell at the sharp end, we had only gained 2 - 2.5 metres at the most. The main problem is the restricted air space. The passage needs lowering for any forward progress to be made.

After the Iris dig, Toby and I explored the Cave of Broken Glass extension. Finding the water low and giving just one easy duck, the unstable chambers were carefully looked at, but still a small block was dislodged by Toby. Great care is needed if looking about here! The stream issues from an undercut slab but finding more passage may be risky. Despite this Ritchie and I returned to the cave and line surveyed all the new passages including the two dodgy chambers, totalling 28 metres, which is nearly as long as the original cave. Further visits to Iris Cave have found calcited bones, some teeth and other bones which appear to have been butchered. This seems to suggest a link with H.P.C., and if this is found then this would make it the longest cave on Skye!



UAMH GLOINE BHRISTE
 Coille Gaireallach, Skye
 NGR: NG 59630 19769
 Length: 58.5 metres
 MSG survey grade 4b, 31.3.75
 Added Survey of Extension
 Grade 1.5, D. Morrison
 R. Simpson, 15.7.07

THE END OF THE 'FUN RUN'

By Irina Erchova

My last official descent into one of the largest Italian caverns dates back to early February 2002. It was a remarkable event that brought me all the way down from northern Germany where I was based at that time: the cave 'fun run'. Have you ever tried it? It is a delicious combo plate of adventure and athletics, spiced with the complicated politics of multiple local caving clubs, followed by the original desert of "Gran Pampel" - a mythic drink, giving away the true origins of Trieste's cave clan. Called "La cronotraversata del Maestro" on the city council's menu, the race was a popular 'special' for six years but as with all good things, it did not last. I was lucky enough to catch the last of it, and I still cherish joyful memories.

In spite of all my enthusiasm, my long preparation and my journey across half of Europe, on this last occasion Trieste, the city I almost dare to call home, met me with a cold handshake. Is it a sign of climate change when the west wind fog, previously only occasionally appearing in November, now comes as a frequent visitor throughout the winter and stays for days? The city was in a white-out! Do you know what the near zero visibility means? In the city with the largest sea front square in Europe we could not even catch a glimpse of the Adriatic waters! I do praise the city with a lot of beautiful views, but my friend Monika, who had never visited it before, and who has not returned since, wouldn't really know. Like everyone else, we were in a daze, slowly drifting from one cafe to another in a cold milky mist.

The next day, hundreds of metres above the city, when the rocky edge of the car park finally emerged out of the fog, we reached our fun-run destination - the Grotta Gigante. To celebrate, the shy sun appeared waiting for the teams to regroup.

As multiple tourist websites will inform you, the Grotta Gigante is a "must see": a huge single cavern, 280m long, 65m wide and 107m high. As a matter of fact, it is the largest tourist cavern in the world and celebrated as such in the Guinness Book of Records. The cave is part of an underground system created by the river Timavo, which enters the plateau in nearby Slovenia and leaves to join the sea just a few miles further west. The cave is thought to have been well-known and even inhabited in prehistoric times, but feared and forgotten during the Middle Ages. It was re-discovered in the early days of the industrial revolution with massive explorations seeking the subterranean Timavo waters, boosted by shortage of water in the city. The cave's gigantic size and notable beauty determined its fate. Though the cave was initially difficult to access, after years of work an artificial entrance was constructed, and in 1908 the cave accepted its first tourists.



**A view of the staircase entry into the cavern.
Photo: I. Erchova**

At present the cave has two artificial entrances with two sets of concrete stairs going all the way down to the bottom and electric lighting. That is why the fun run through the cave is not a technical challenge. As a matter of fact the cave defeats all the stereotypes about going underground. It is not small or claustrophobic or dark; there are no deep pools or low crawls or slippery passages; it provides welcome coolness in summer and longed-for warmth in winter. Is it not your easiest way to be upgraded to an adventurer? You're seeking more? There is still room for it: the cave's natural entrances and many small tunnels and side alleys still remain challenging and accessible only to cavers. So you see, it is hard to pull out!

Meanwhile, near the car park the crowd buzzes with excitement. The day gets better and better and unpleasant memories of the fog 'down there' drift aside. The race starts. After a short wait and a mile of surface warm up we finally run down into the cave. The best athletes can finish the challenge in less than ten minutes, but this is not what we came for. We are entering the awesome world of fairy tales. The landscape of the cave is familiar and foreign at the same time with rich calcite concretions and with natural sculptures of exquisite beauty; huge stalactites drip from the ceiling and stalagmites grow from the floor. Gigantic stalagmites, not less than 12m high, have a very special look, resembling palm trunks. I would imagine that the first visitors in 1908 must have been stunned by the marvellous experience - allegedly, the cave was illuminated by up to 5000 candles and the visit was accompanied by live music. We do not have music, and we do not have the time! Competitors are breathing at our backs: accelerate, first down, then up and up....did I say it was not a challenge? I was wrong.... the endless stairs lead us higher and higher and there is no end in sight.... YES, that is it! The daylight, the cheering crowd, and we are back on the surface. Fifteen minutes? Twenty? We need ten more minutes to catch our breath and then thankfully accept a glass of local wine.

While the race continues, a small reception is held in a local museum that has now, I believe, been renovated and upgraded - the cave is preparing for its 100th anniversary as a tourist cave. In the course of a century however the cave has changed from an exhibit to a research laboratory. Because of its height and constant temperature of 12°C, the cave is the site of international scientific experiments. It houses a seismograph, a permanent earthquake revelation centre, and the longest geodetical pendulum in the world for measurements of the land tide, the small movements of the earth's crust, provoked by the moon, similar to water tides. The downside of this scientific expansion is that the 'serious' face has taken over from the 'smile' one. The fun run was cancelled because of ongoing construction work and important 'scientific' issues. So were the fun abseils from the cave's roof around Christmas and carnival time. As a result, less and less fun surrounds the cave and.... the number of visitors drops each year. Why am I not surprised?

But to finish on a cheerful note....one more great ritual to enjoy before it is all over. Is it not right that such rituals must occur beneath the surface? We go 100m under the ground to celebrate...Odin! Three massive pots are filled with wine, fruit and sugar meant to restore our spirit and vigour. It is a bizarre tradition, blamed on a Finnish recipe, but we do sing "Odino, Odino, non stane mandar acqua, manda vino!" In the process, many participants got major and minor prizes, and the celebrations went on and on. We got a prize too! (Hm.... for the biggest number of participants from a single caving club). Was it an honour? Well, it *was* a test! Would you be able to collect your prize (a solid piece of karst rock) and bring it to the surface AFTER praising the gods? Luckily I saw our prize in the club on my next visit to Trieste, so I guess we passed.

It is worth noting that there are mysterious caves, tunnels and potholes all around Trieste. Do you want to visit? Just contact one of about ten groups of cavers that are now active in Trieste. If you are lucky, you might even be invited to the Gran Pampel!

-----oOo-----

GREAT ORME COPPER MINE

By Jim Salvona

During the second week of June while staying in Llandudno I decided to climb Great Orme. However heavy rain b--d that idea so we took a taxi to the top (this is the most economical way apart from walking, if there are two or more people). A cable tram runs every 20 mins. I then discovered what probably every other caver in the country knew, that there is a Bronze Age copper mine dating from 4,000 years ago. This had been featured on BBC's 'Coast', had won a Prince of Wales award as a tourist attraction and an archaeological initiative award.

I found it a fascinating place and would put it among my top three mines - and as some of you know I have explored more than a few! The mining technique was something else. Using hard boulders of a suitable size collected from the beach (600ft lower down the steep hillside) they chipped the malachite out of seams in the limestone. If the stone was too hard they lit fires which softened it sufficiently for their purposes. Over the years this created what could be described as a three dimensional maze. I did the tourist trip self guided!! price £6, and since I just happened to have a torch with me I was able to glance briefly into side workings that led mostly to tight but obviously passable galleries, avens, shafts, drifts, chambers etc. The excavation of passages continues but already measures over four kilometres. The tourist trip takes approx. 20 minutes but is self guided (hard hats provided). Well worth the visit.

UNEARTHING A VAMPIRE

By Richard Simpson

Having just had a previous commitment cancelled at the last minute, it meant I had the Sunday free, Contact was made with David Morrison and we decided to go to Skye as it was already mid morning and neither of us fancied the idea of journeying far.

The last couple of caving trips were spent at Appin and the Knockan crag area of Assynt, and having indulged in some of these more spacious caves (it's all relative) it was decided early on that we should visit a cave which does not involve any tight crawling. Another look at the end of Vampire Pot was quickly agreed upon and it did not take long to arrive at the parking spot, kit up and make the easy walk to the entrance. Removing



**Dave Morrison at the head of the pitch in Vampire Pot
Photo: Richard Simpson**

the limestone block and wooden stake (not recommended with real vampires) which cover the entrance it was not long until we were at the ladder pitch. This is near a spot where many bones and fire cracked stones are still in-situ and so care was taken in this area.

The refreshing short pitch down into a high chamber soon led after a few metres to the end of the cave and while I was checking the small sump at the back wall David began to clear sediment from a small hole higher to the left. As most of our digging gear was still in Iris Cave, we were left with an ice-axe, a hammer and a chisel to deal with our curiosity. The sump passage was far too tight to do anything with but David had found continuing passage large enough to crawl through. Taking a turn at digging it became an easy push through to join the waterworn passage which was just large enough to allow two people to sit up in. To the left, it carries on for about two metres where it then heads up through a small hole higher in the wall with water issuing from it. The water was later pondered over, and thought that it could possibly

come from Vampire Cave, so we have to return in wetter weather and dye test the cave.

The way on looked blocked by more sediment and limestone but a small eyehole showed a drop and a chamber large enough to stand in. Scratching about the sediment I found some limpet shells which were placed safely out of the way. David then took over digging and uncovered a large projection of rock which ceased to be a problem when he introduced it to the hammer. After some tidying up we were left with a 1.5m drop into a reasonably sized Skye chamber, later named Polythene Chamber. A sling was placed over a bit of rock to use as a foot loop to get back up, which in the end was not difficult, but the sling was useful. At this point we were at the other side of the sump which is impassibly tight. The way on is along a low slanting rift where more passage can be seen, but this needs to be widened and lowered to reach a tight looking crawl along a small stream passage. Just before this rift a large, clear, polythene bag was found trapped in the stream channel. How this arrived here we are not certain but future visits will give a chance to find out, and survey the extending passage. The passage gained is approximately 10 metres with another four metres visible.

So if you are ever on Skye looking for vampires, don't stay out too late!

MEGHALAYA 2007 - EXTENDING INDIA'S LONGEST AND CREATING ITS THIRD LONGEST CAVES

By Tony Jarratt and Henry Dawson

“Hundreds and thousands of feet below the earth’s crust, far from human view, lie meandering passages, waterways, spectacular sights in the form of stalagmites and stalactites, and rumbling waterfalls. Those who have explored the innermost depths of Meghalaya marvelled at the sights which greet them while exploring the caves that are abundantly found in different parts of the state.”

E.D. Marak, Minister, Information and Public Relations, Meghalaya.

“Nature’s Exotic Gift. The Caves of Meghalaya” - Brian Kharpran Daly, 2006.

The Team:

India: Brian Kharpran Daly (M.A.A./G.S.G.), Shelley (nee Diengdoh) Syien (M.A.A.), Maxwell Syien (M.A.A.), Duohi Jeet, Com Mo Dias, Arki, Sngap Bha (Tongseng Village).

Germany: Heidrun Andre (H.F.G.N.), Georg Baumler (H.H.V.L.), Rainer Hoss (H.F.G.N.), Herbert Janschke (H.F.G.O.K.)

Austria: Peter Ludwig (L.V.H.O.O.)

Switzerland: Thomas Arbenz (S.N.T.)

U.S.A.: Barbara am Ende (N.S.S.)

Canada: Ian McKenzie (A.S.S.)

Ireland: Des McNally (U.D.C.P.C.), Brian Cullen (D.U.P.C.), Quentin Cooper (B.C.), Robin Sheen (B.C.)

UK: Simon Brooks (O.C.C./G.S.G.), Mark Brown (S.U.S.S./G.S.G.), Tony Boycott (U.B.S.S./B.E.C./G.S.G.), Kate Janossy (G.S.G.), Tony Jarratt (B.E.C./G.S.G.), Neil Pacey (R.R.C.P.C.), Henry Rockliff (S.U.S.S.), Fraser Simpson (G.S.G.), Jayne Stead (G.S.G.), Peter Glanvill (B.E.C./G.S.G.), Phillippa Glanvill, Henry Dawson (B.E.C./R.U.C.C.), Joe Duxbury (G.S.S.), Amanda Edgeworth (S.W.C.C.), Mark Tringham (G.S.G.), Rhys Williams (S.W.C.C.).

Zoological Survey of India (Eastern Region Station):

Ilono Kharkongor (scientist), Silbaster Swell (collection tender), Madhar Soonar (lab. attendant), Gerald Japang (driver), Shinoti Kharkongor.

The Support Team: Bung Diengdoh, Adison ‘Adi’ Thabah (camp Gods), David Kimberley Pakyntein (driver/organiser), S.D. Diengdoh (bus driver), Jonathon Wanniang (driver’s mate), Myrkassim Swer (chef), Munni Lyngdoh (Mrs Swer), Vinod Sunar, Robin Gurung, Raja Paul, Champa Thapa, Radha Rawat (indispensible helpers), Bod Kharkongor (driver), Khraw Myllem (driver).

Guides, Informants and Old Friends:

Evermore Sukhlain (Shnongrim), Larsing Sukhlain (Sutnga), Shor ‘Pa Heh’ Pajuh, Kores, Gripbymon Dkhar (Semassi), Ramhouplien Tuolor (headman, Sielkan), Carlyn Phyrngap (were-tiger), Menda Syih, Na-U-Sukhlain (doloi, Nongkhlieh Elaka), Bill Richmond Marbaniang and the Meghalaya Police, the people of Sielkan, Semassi and the Ridge, Maureen Diengdoh, Robin Laloo and our friends in Shillong - and the staff of the Nazareth Hospital, Shillong.

Acknowledgements:

Brain Kharpran-Daly and the Meghalaya Adventurers’ Association, the Government of India Tourist Office (East and North East India) - Kolkata, the Meghalaya State Tourism Dept., officials and government depts within Meghalaya.

Compiled from the Expedition Diary, a G.S.G. Newsletter Article by Simon Brooks and Mark Brown and the Writers' Log Books.

By 3rd February a team of five had assembled on the Shnongrim Ridge where our bamboo base camp was located and last year's ultra-promising cave, **Krem Labbit (Moolasngi)3** was rigged by Henry R. He was joined by Robin and Brian C. and underground sites of interest were noted. Next day they were joined by Tony B. when they rigged **Krem Wah Snig** entrance pot to reach a 60m crawl and second pitch. Meanwhile more of us had gathered in Shillong and a select two hit the local beer to excess resulting in your scribe admiring the marble floor of the Cloud Nine bar from extremely close quarters! On the 5th two more pitches were dropped in **Wah Snig** and a complex series of walking and crawling passages entered, three of which were left unexplored. Henry R. and Quentin surveyed upstream through deep water in **K.L.(M.)3** to reach a sump - almost certainly the downstream end of the sump at the end of Video Passage in the 22km long **Krem Liat Prah** system (India's longest cave).



**Evening in camp, Shnongrim Ridge, Meghalaya
Photo: Simon Brooks**

A stream sink, **Krem Wah Sarok 2**, was descended by Mark B, Robin and Brian C. on the 6th when a strongly draughting canal, almost blocked by flowstone, was reached after a series of classic pitches. More of the team arrived at the camp. On the 7th Mark B. rigged **Krem Umsohtung** in Lelad village (cleaner this year and losing its nickname of 'Toilet Cave') and, joined by Pete G., Phillippa, Barbara and Henry D., surveyed the remaining lead in the first upstream side passage. Due to Barbara being tired and dehydrated a slow,

assisted and very late exit was made. Back at camp there was more excitement as your scribe was found unconscious as a result of his head-banging activities and was unceremoniously transported to the Nazareth Hospital in Shillong for a CT scan and a night under observation. He is very grateful to Dr. B, Jayne and Shelley for their concern and company and would like to state that the scan proved that he does have a brain! Meanwhile Des, Joe and Peter L. rigged two pitches in **Krem Wah Sarok 3** and Henry R., aided by Brian C. climbed into high level passages in **K.L. (M.)3**. One of these was surveyed by Neil and Quentin to a point very close to the attractive resurgence cave of **Krem Rubong 1**. Next day they returned with Mark B., Henry D. and Robin and continued the survey to a boulder choke where they fortuitously heard Pete G., Phillippa, Thomas, Barbara and Brian K.D. who were on a photographic trip in **Rubong 1**. The removal of a boulder allowed the expedition's first major link to be made and the surveys to be connected. Much of the **K.L. (M.)3** streamway was also surveyed. In **Wah Sarok 3** Joe, Des and Peter L. explored and surveyed.

They returned with Brian C. next day and pushed on down to make the second important connection when they popped out in Video Passage, **Krem Liat Prah**. A large team in **K.L. (M.)3** surveyed and photographed and pushed a couple of unpleasant crawls. Others recced on the surface and the invalid and his minders returned to the ridge to join in the fun. Much more surveying was done in **K.L. (M.)3** on the 10th with teams going in from both entrances. Some odd problems were found with loops failing to close and after discounting ghostly activity (the local spirit inhabits the adjacent **Krem Wah Shikar**) they were blamed on local magnetic anomalies. Further up the ridge Brian C., Thomas and Peter L., guided by Raplang, found **Krem Dngiem 1** (Bear Cave) and also, as a bonus, **Krem Dngiem 2**, **Niang Ju** and **Toss Rock Pot**. 200m of fossil passage was surveyed in **Dngiem 1**.

Sunday 11th saw Peter L., Brian C. and Quentin finishing the **Wah Sarok 3** survey while Henry R., Joe and Peter G. dropped into the impressive jungle doline of **Krem Moo Sata 1** to swing into an ongoing upstream passage 15m off the floor. The hope in this area was to find a link between the **Liat Prah** ('northern' ridge

system) and **Krem Synrang Ngap** (part of the 'central' ridge system). The writer and Des, meanwhile, abseiled into **Liat Prah** via **Snowman's Pot** but failed to find the route to Video Passage. The survey of **Dngiem 1** was continued by Tony B., Thomas and Phillippa resulting in 250m more in the bag while Mark B. rigged the End of the World traverse to reach a big pot. A c.40m pitch before this reached big passage. At **K.L. (M.)3** Neil, Robin and Henry D. completed the streamway survey and located a large, ongoing inlet. Barbara and Jayne continued the surface recce.

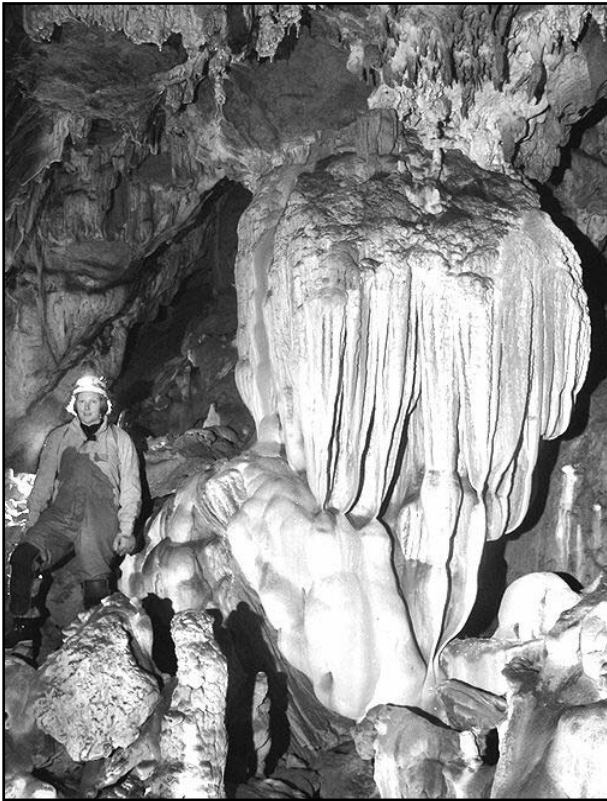
The **K.L. (M.)3** inlet was pushed next day by Neil, Phillippa and Quentin along 120m of flat out crawl to an aven. At **Moo Sata 1** Joe, Henry D. and Peter G. rigged the opposite side of the great doline to find a downstream passage. The undescended pot in **Dngiem 1** was dropped for 42m into **Liat Prah** at the junction of No Draught Passage and the Aircraft Hanger to give the third connection of the expedition while nearby Barbara and Robin reced in the area of the **Knee Wrecker Pots** finding six new shafts. Tony B. and Jayne photographed bones and rescued a calf at the nearby **Knee Wrecker 2**. At **Wah Sarok 3** Henry R. and the writer checked out Video Passage in the hope of connecting it with **K.L. (M.)3** but were confused by the old survey which bore little resemblance to the passages entered. Back at camp things were hotting up with first the welcome arrival of our German colleagues and later the decidedly unwelcome arrival of a delegation of twenty-eight threatening coal miners demanding that we leave the area or our safety could not be guaranteed! The team discussed options and our friend Bill Richmond Marbaniang, chief of the Meghalaya police was phoned. The next arrivals were a team of five biologists from NE India University and a well-armed squad of camouflage-uniformed para-military policemen who had been sent by Bill to guard us. All this fuss was due to forthcoming environmental problems which will adversely affect the ridge, its stunning and important cave systems, the biology and hydrology of the area and the lifestyle of the local villagers - though our worries are more about the rapidly developing quarrying industry than the less threatening coal mining, destructive though it has been to the once idyllic countryside. A Public Interest Litigation had been filed by the Meghalayan Adventurers' Association to the Indian Supreme Court in a bid to protect the ridge and the mine owners were concerned that this would threaten their livelihoods.

On the 13th belongings were packed and caves de-rigged as the team prepared to leave while Simon arranged a meeting for the following day with Brian K.D., the police, mining representatives and a lawyer. Tony B. took the biologists into **Krem Rubong 1** to take samples and photographs and Fraser managed to get some video footage during the de-rigging so the day wasn't completely wasted. Torrential rain heralded the day of the meeting and resulted in the police truck having to be towed up to the road. Biological work continued in **Krem Wah Shikar** where the two Peters and Barbara accompanied the scientists. Simon and Brian K.D. returned in the afternoon to announce that a favourable outcome had been reached with the miners and the expedition could continue. Sighs of relief and celebrations all round!

Krem Dngiem 1 was re-visited on the 15th when photography (Des and Mark B.) and videoing (Fraser) took place with the writer acting as reluctant model on the exposed End of the World traverses. Mark dropped the superbly decorated pot at the end into Trafalgar Square in **Liat Prah** then dropped the pitch below the End of the World into another part of the same cave - our fourth and fifth connections. In **K.L. (M.)3** Henry R., Ian, Brian C., Quentin, Phillippa and Neil continued surveying inlets both up and downstream. Joe, Barbara and Peter G. finished the **Krem Moo Sata 1** survey and Pete photographed the cave. This was not to be the hoped for missing link. Robin and Peter L. bottomed **Krem Moo Sata 2** (?) at 17m - another possible link written off. An eight strong Anglo-German team left camp for the Sielkan area where they would stay for several days in a bamboo hut on a less exotic diet but with no shortage of rice! The recent rain meant that the last 3.5 kms of road had to be walked carrying full kit to reach the path back to the village. Navigation problems caused the team to walk to the base of the hill and back twice before being rescued by a bizarrely equipped local with a digital camcorder who showed them a video of Georg! Eventually they gratefully collapsed in the headman's hut with a brew of tea.

On the 16th Peter G., Barbara and Thomas surveyed the connections from **Liat Prah** to **Krem Dngiem 1** where Joe, Brian C., Fraser and Peter L. were surveying the traverse and Trafalgar Square pitch. More pho

tography and videoing was done and the cave de-rigged. Des and Robin descended the large collapse doline of **Krem Umthymme** and dropped a 5m pitch into a boulder choke which was dug to open up a squeeze and route through boulders to the head of a 15m pitch. At the ever popular **K.L. (M.)3** Quentin, Henry R. and Neil continued tidying up the survey. Mark B., Ian and your scribe returned to **Krem Unsohtung** to finish the downstream survey when a flowstone blockage halted all further progress. In the stunning river cave of **Sielkan Pouk** Georg, Kate, Herbert and Henry D. surveyed 620m of inlet at the end of Perfect Passage while Simon, Heidi, Rainer and Mark T. took photos. All then had a communal 'cave bathe'. Perfect Passage was heralded as the most beautifully and extensively decorated passage yet seen in Meghalaya - and for many of the team it was the finest ever seen! Several branches of the system were explored but only the high level fossil passage and an inlet 'went'. The main passage was left ongoing as time ran out.



Barbara am Ende in Chamber 3, Krem Dngiem 1
Photo: Mark Brown

At last, on the 17th, the spectacular **Krem Labbit (Khaidong)** system (the upstream part of **Liat Prah**) was revisited by Brian C. and Henry R. who examined several outstanding leads. Des, Fraser and Joe videoed and de-rigged **Unsohtung** while Neil, Robin and Mark B. rigged **Krem Um Im 1** which needed resurveying. A fresh sump stopped progress after a couple of hundred metres so they de-rigged the cave and set off back to camp. Today the Gods were with them as a plume of warm air was noticed rising from a nearby doline - probably caused by the cold temperature following heavy rain. A draughting walking-sized passage was found and named **Dragon Hole**. It looked good. Not far away a surface recce team of Quentin, Phillippa and the writer checked the **Krem Waipong** area and found three steaming and draughting caves roughly above the western end of **K.L. (M.)3**. Peter L. and Thomas recced and mapped in the rarely visited area round **Krem Umsngad** at the opposite end of the ridge. Others recced and found that **Krem Wah Sarok 2** was correctly called **Krem Heh U Reh**. At **Sielkan Pouk** about 660m was surveyed by Georg, Mark T., Herbert and Henry D. in the fossil passage. This large and geologically interesting gallery

followed the contact between the limestone and sandstone above. It was carpeted with gypsum needles but unfortunately choked, though there may be potential for digging. (Good man, Henry!) Meanwhile Simon, Heidi, Rainer and Kate went bamboo maypoling downstream but with little result.

Sunday the 18th saw Robin, Henry R. and Phillippa bolting up a wall at the side of the boulder choke at the end of Disto in **Krem Labbit (Khaidong)** and entering a continuing, large fossil passage. At **Dragon Hole** Fraser, Peter G., Barbara and Brian K.D. surveyed 149m to a 20m pitch. Videoing and photography was also done. Neil, Quentin and your scribe, back down **K.L. (M.)3**, removed a boulder in the promising but low and exceedingly grotty 'All Bound for Moomooland'. Beyond, more squalor led to a view through an impassable rift into bigger stuff beyond but without bang or caps there was no way of getting through into what was assumed to be part of **Liat Prah**. The hoped for major link was thus left for a determined seige next year. A crowbar and reflector were left in the rift in case it could be found from the far side. Joe and Brian C. descended two pitches in **Krem Dngiem 2** and got the expedition's sixth connection by arriving in an aven just off No Draught Passage in **Liat Prah**. They surveyed the link. Mark B. and Peter L. rigged the old favourite, **Krem Synrang Ngap** in preparation for a big push. At **Sielkan Zuala Pouk** was explored and surveyed for 36.39m by Simon and Henry D. but dense jungle obscured the whereabouts of **Bak Pouk**.

Despite the resolved problem with the coal miners it was around 3.15am sometime this week that Peter L., awake at the time, heard a shotgun being fired over the camp by a passing well-wisher and the pellets land

ing on the tents.

Next day Ian and Brian C. surveyed the new fossil passage in **Krem Labbit (Khaidong)** for over 200m to a choke. Robin and the writer took the supposedly easy option of **Krem Wah Lukor 1**, located within walking distance of the camp. This turned out to be a 9m deep blind pot with a narrow shaft to one side which has yet to be dropped and will connect with the adjacent **Krem Wah Lukor 2** where a 30m pot was dropped into a series of horizontal passages intersecting a deep daylight shaft, **Krem Wah Lukor 3**, 17m above the floor. The cave had a good feeling about it.

Peter L, Des, Fraser, Barbara and Peter G. returned to **Dragon Hole**. A 23m pitch, canyon, traverse and 45m pitch led to a large passage or chamber. Photos and video were taken. Way down the ridge Thomas and Brian K.D. followed the dry Um Sngad riverbed through a gorge to reach two flood-prone cave entrances below a cliff with a 5m climb down into a large passage. The big push in **Krem Synrang Labbit** involved Mark B., Henry R., Phillipa and Quentin who reached the impressive M.A.A. Chamber in three hours. They pushed on through draughting passage heading NE, the Kit Kat Trail, but ran out of time and emerged at 2.30am after a 14 hour trip. Imagine their delight when the planned radio contact failed and they had to walk home. Four more cavers arrived in camp today. At Sielkan a spectacular through trip was made from **Sielkan Pouk** to **Pielklieng Pouk** with 60m of new, high-level passage bagged on the way. This was found with the aid of the bamboo maypole but was only an oxbow.

On 20th February local stars Pa Heh and Kores, accompanied by Henry R. joined Robin, Rhys, Joe and the writer at **Krem Wah Lukor 2** in order to identify the daylight shaft located in a patch of jungle. In the cave more rigging and surveying was done until the rope ran out at a 10m pitch into a large passage at right angles. At **Sngad River Sink** Peter L., Thomas, Max, Shelley, Fraser and Brian K.D. explored and videoed. Large



Perfect Passage, Sielkan Pouk
Photo: Simon Brooks

washed in trees were a hazard! The **Dragon Hole** team of Neil, Des, Brian C. and Pete G. dropped the 50m pitch into the ceiling of the Grand Trunk Road in the **Krem Um Im 6** section of guess where - **Liah Prah**, to get the seventh connection of the expedition. Another 600m was surveyed by Georg, Herbert, Mark T. and Rainer in **Sielkan Pouk** along Footprint Inlet before running out of time.

Simon, Kate, Heidi and Henry D. were guided to a blind 50.5m deep shaft through sandstone into limestone and because of the locals' tales called it **Ongoing Cave**. It dropped down to a rift with climbs that tapered down in size - not going! The villagers called it the 'hole with no end' and it was described by the headman's wife as 'the hole which, if a stone is dropped down, it will fall for five minutes'. (That's deep!)

The 21st was the occasion of the Moolasngi village fete which most of the camp dwellers attended. Sadly there were no fighting bulls at the event. Six of them then changed places with the Sielkan team. At **K.L. (M.)3** Quentin, Henry R. and Brian C. tidied up the survey while Neil, who had forgotten his helmet, located a rift passage and three shafts on the walk back to camp. The latter may have been **Krem Skap 1,2** and **3**. Joe, Barbara and Peter G. went to **Krem Iap Ksew** (Dead Dog Cave) and a nearby steaming rift, which they named **Dog Breath Cave**. In one of these Joe dropped a 10m pitch into some 50m of ongoing canyon passage. Robin, Peter L. and your scribe were back at **Krem Wah Lukor 2** and the final pitch was dropped into the farthest upstream end of the superb, 14km long **Krem Umthloo** - the writer's baby!

This was expedition connection number eight and particularly satisfying as it was likely to herald further

exploration in this very fine, and far from finished system. The **Sielkan Pouk** team of Simon, Georg and Heidi had a photographic trip before heading back to camp. With the others they hiked out to find no waiting jeeps and wondered if the miners had had their way. These turned up three hours late and without beer (!) but the relief was such that the drivers were forgiven.

Dog Breath Cave or **Krem Iap Ksew 2** was revisited on the 22nd by Quentin, Pete G. and Barbara who surveyed 70m to the top of a 24m pitch. Peter L. and Simon surveyed in **Sngad River Sink** and reached a sump. Robin, Mark T. and Joe were in the same area. The writer, Ian and Neil revisited Video Passage in **Krem Liat Prah** via **Krem Wah Sarok 3** - fully intent on sorting out the fictional survey but were gobsmacked when they realised that survey stations found were of very recent origin and that they had unwittingly connected with **Krem Wah Snig** - link number nine of this very lucky expedition! Not trusting a rope protector on the big pitch they left **Liat Prah** by the main entrance having completed the first through-ridge trip in the lower part of the system. Heidi, the two Henrys and Brian C. surveyed 144m in **Krem Dngiem 2**. Mark B, Phillippa, Mandy, Rhys and Fraser videoed and photographed in **Pielklieng Pouk** then most did the through trip.

On the 23rd Quentin, Peter L. and Mark T. dropped a pot and pushed a squeeze in **Krem Iap Ksew 2** then followed a streamway to more deep pitches which Peter bolted while the others surveyed 3 Rats Passage - complete with its particularly active and apparently 'cuddly' residents! Mark B., Phillippa, Mandy, Rhys and Fraser photographed and videoed in **Pielklieng Pouk** before returning to camp. Robin, Des, Ian and Neil descended **Krem Wah Sarok 3** to survey and confirm the link to **Krem Wah Snig** from Video Passage in **Krem Liat Prah**. In **Krem Labbit (Khaidong)** Brian C., Kate, the Henrys and your scribe checked all possible leads near the **Krem Chuni** entrance including a high level passage which the Henrys bolted up to (amongst a spray of vomit from one of them!) The only one of interest led to a dodgy vertical boulder choke with an open, stepped aven above which either needs bolting for safety or dropping into from the surface. Eight of the team set off for Semassi village where Peter G., George, Joe, Simon, Rainer and Heidi took a bamboo maypole into **Krem Tyngheng** to check high level leads in this fascinating and labyrinthine river cave.

Next day Mark B., Quentin and Phillippa recced in the Dukan Sha and Lumthari areas finding a blind 30m shaft (which may have been **Krem Kacha**) and some entrances in the base of the escarpment NE of the chai shop. At **K.L. (M.)3** Kate, Henry R., Mark T. and Rhys pushed three climbs, which led to short lengths of passage. **Krem Wah Snig** was visited by Robin, Ian and Brian C. to survey a couple of passages and check out an aven for a possible link to **K.L. (M.)3** - in vain. The writer, Neil and Mandy took the chance to carry on a project attempted last year but foiled by poor route finding. **Krem Myrliat 1** was dropped (after confusing it with the undescended and adjacent **Krem Myrliat 2**) into the far reaches of the 14 km long **Krem Umthloo** (part of the southern system) and

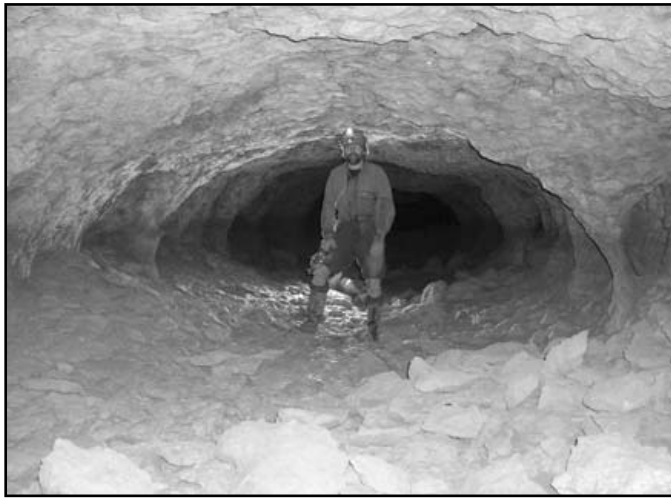


Mark Tringham amongst Decorations

Photo: unknown

a couple of inlets leading north from one of the main upstream feeders were checked. Your scribe had noticed the proximity of these inlets to the 4km long stream cave of **Krem Synrang Labbit** (part of the central system theoretically feeding the **Krem lawe** resurgence at the far eastern edge of the ridge and with a potential length of over 20 kms) and had a wild idea that they may be connected. After a couple of blind passages we reached Letter C Gallery, explored and surveyed to an apparently too low crawl by Thomas Matthalm and team some years ago. A strong outward draught was followed through a roomy but muddy low section to reach two fine avens, which were not on Tom's survey and with a dearth of survey stations. Beyond these,

and at a total distance of only 134m from known passage a sluggish streamway was met flowing from left to right in a rather complicated area of chambers, chokes and low, muddy passages. Here an obviously differently marked survey station was found and tied into. Confusion then reigned as the explorers argued as to where the Hell they were! After a snack of Britannia coconut biscuits they headed out - filthy, wet and tired but keen to compute the survey figures. Mandy got this job and all were soon admiring the perfect fit of the



Herbert Janschke in Fossil River Passage, Krem Tyngheng, Meghalaya.

Photo: Simon Brooks

expedition's tenth and most important link. **Umthloo** and **Synrang Labbit** were now India's 3rd longest cave at 18 kms and part of the revised southern system - the central system now being redundant! A link with the northern system of **Krem Liat Prah** and its satellites is now the project for next year and would be well on the way towards the creation of a 100 km+ megasystem. As German Tom and Austrian Peter L. had failed to push low passages from both sides this new link was named (with tongue in cheek) after our biscuits - the Britannia Connection! Suitable celebrations were held that evening. In **Krem Tyngheng** Georg, Heidi, Rainer and Peter G. surveyed 483m of maze passage while Simon, Barbara, Herbert and Joe pushed and surveyed passages in the Fossil River Series.

On Sunday 25th February Mark B. rigged a series of pitches in **Peaceful Cave**, Lelad, whilst Rhys and Brian C. surveyed. At base level small and decidedly unpleasant draughting ducks drove them back out. **Krem Wah Shikar** was visited on a tourist trip for Tongseng village lads Duohi Jeet, Com Mo Dias, Arki and Sngap Bha, led by Robin, Fraser and Des. They thoroughly enjoyed it and were duly photographed and videoed. At Dukan Sha chai shop Henry D., Peter L., Mandy and Phillippa explored and surveyed 350m of spider-infested small passages, a larger fossil passage and a streamway/canal in a low level cave apparently called **Krem Son Pow 2** and nicknamed 'Drunken Goldfish Cave' when it was realised that 'son pow' was their guide's request for 'more money'! It later became **Krem Kdong Thloo**. Neil, Henry R. and Kate bottomed **Krem Mih Dohtli 2** at 20m after two short pitches and **Krem Mih Dohtli 1** after a 25m drop to boulders. Quentin, Ian and Mark T. went to **Krem Iap Ksew 2** and failed to descend the last shaft 'due to blind shafts within the shaft, before locating a 15m draughting shaft'. At **Krem Tyngheng** a total of 533m was surveyed by the same teams as the previous day to the NW and SW of the main passage.

Krem Iap Ksew 2 was revisited next day by the same team who finally bottomed and surveyed the pitches and got the expedition's eleventh connection when they tied into survey station 105 in **Krem Shyien Khlieh** just north of the camp. Fraser, Des and the writer descended **Krem Wah Lukor 2** to the ledge with a stunning view of the Pinetree Pot daylight shaft, **Krem Wah Lukor 3**, in order to video Henry R. and Peter L. abseiling in from the open shaft in the jungle where a 1.5m long snake had earlier been seen. After almost two hours of waiting and listening to Henry drilling and whistling somewhere above the cameramen got fed up and mutinied. The writer descended the next pitch to suddenly see Henry appear high in the ceiling of a towering aven offset from the daylight shaft. The 'Snake Shaft' was not the correct one but had also connected (expedition link number twelve) via a window reached by a desperately exposed traverse above a blind, 40m deep shaft. It thus became **Krem Wah Lukor 4**. With some very imaginative rigging, Henry reached the floor, followed by Peter who de-rigged **Krem Wah Lukor 2** while Henry and your scribe surveyed out and de-rigged **4**, at one point pausing to admire a small, black and deadly-looking scorpion resting on the cave wall. The aven became 'Tubular Bells Pot' after the tunes played on the superb formations decorating its walls, and the views from the window - 40m above the floor and with a 40m drop only some 4m away on the other side - were spectacular. Crossing the traverse scared the shit out of one particular old Mendip git with a headache! Robin, Neil and Kate went to a supposedly new pot named B6 but found it to have been previously bolted. 45m and 25m pots were dropped to a lot of awkward, draughting cave ending

in a small streamway. They were informed that it was **Krem Syrnun** - partially explored in 2002 but positioned incorrectly on the map. Phillippa, Henry D., Mandy and Rhys continued surveying for 175m in **Krem Kdong Thloo**, mainly in upstream walking-sized passage whilst Mark B. and the Brians surveyed 635m downstream and through a duck to an entrance shown to Mark two days earlier. Simon, Heidi, Herbert and Peter G. surveyed some 200m in a maze of wet, downstream passages in **Krem Tyngheng** then walked back to camp, feeling somewhat vulnerable as they trekked through the mining settlements! **Tyngheng**, the never-ending cave, was left with 30 unexplored passages!

February 27th and the last caving day of the expedition. **Krem Synrang Ngap** saw the Marks, Henry D. and Brian C. pushing several grotty side passages in the far reaches and failing to find the major connection to **Krem Synrang Labbit** while Henry R., Heidi and the writer went for the soft option at the much closer downstream choke - two boulders were blocking the way to black space beyond. They were lucky to get there as Heidi sustained a badly twisted ankle en route but insisted on continuing. Here Henry produced his not very secret weapon - three 'snappers' made from shotgun cartridge powder scrounged from Pa Heh inserted in drilled holes, tamped with cornflour and water paste and electrically fired one at a time. The first failed and the others produced smoke and noise but little else. It was a good effort though. A calcite rib on the wall was then chiselled off just enough to allow the skinnier Mendip member of the team to squeeze through and enlarge the place from the far side so that Henry could join him. They explored some 160m of huge and splendidly decorated high-level passage ending in a proper boulder choke with several ways on down in the floor. It was named 'Adventurous Hobby Explorers' Hall' following a derisory comment from one of our Germanic colleagues! Lack of time prevented surveying or pushing but it will be a great start to next year's trip. There is a good chance of connecting with **Krem Tyrtong Ryngkoo** and/or **Krem Bir 1** or even of bypassing these altogether and heading for **Krem Iawe**. Robin, Joe and Kate pushed on in **Krem Syrnun** and got the thirteenth and final connection of the expedition when they appropriately dropped into the old favourite **Krem Liat Prah** to bump up the length of India's longest cave to 26 kms. Great stuff! A large **Sngad River Sink** team clocked up a lot more metres in this seemingly endless maze cave.



Bats in Sielkan Pouk

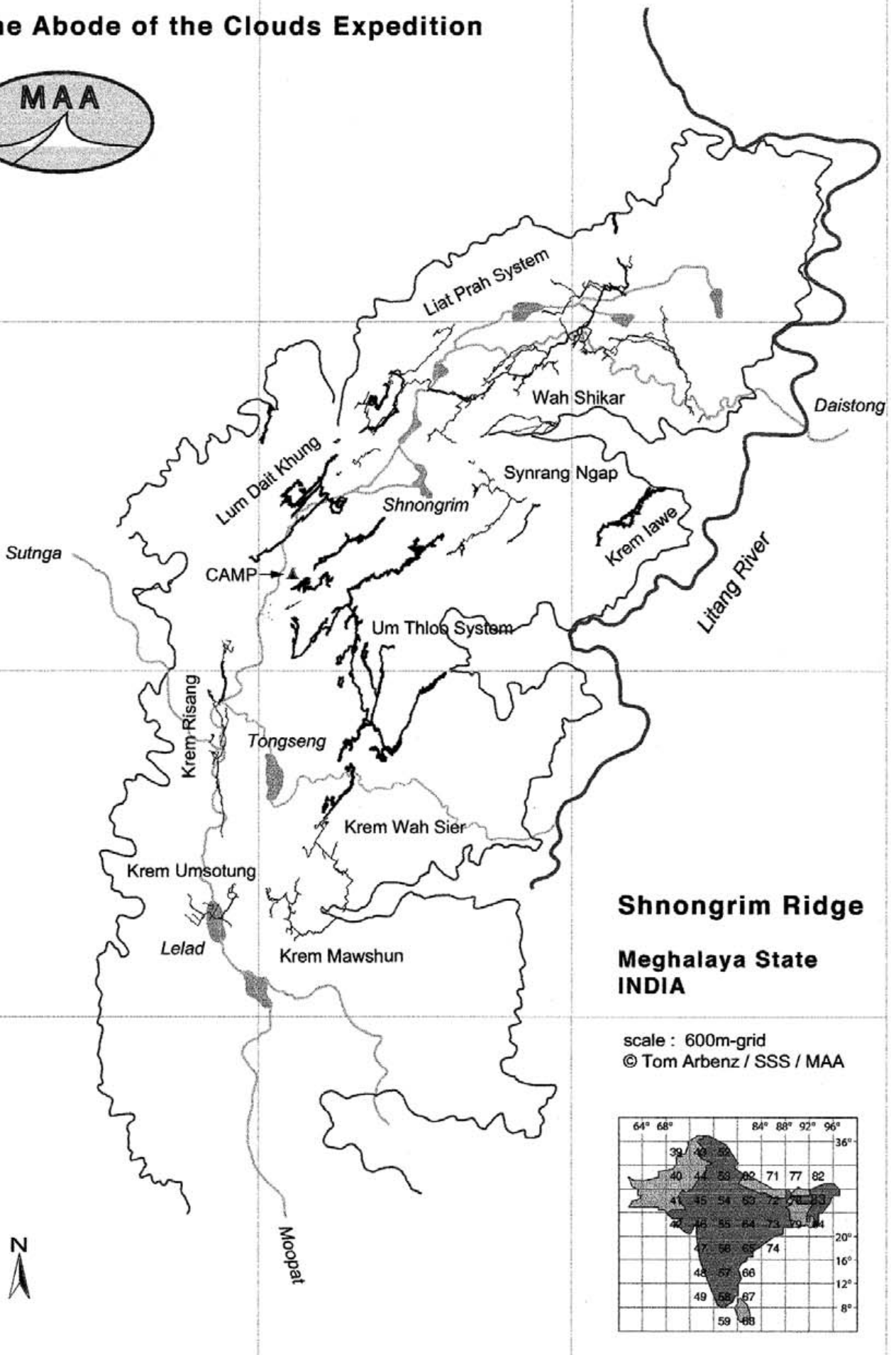
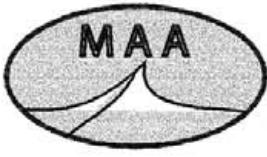
Photo: unknown

The following day all packed up, bid a fond farewell to the ridge and its amazing cave systems and returned to Shillong where Daniel Gebauer, Sebastian Breitenbach and Norbert (?) had arrived - too late to join us but intent on doing their own thing. Andre Abele had been with Daniel in another part of India and he was met later in Calcutta on his way home.

The evening of 1st March was spent at the lakeside residence of Robin Laloo where many partied the night away before leaving for Guwahati and Calcutta on the 2nd. The 3rd was Holi festival and many of the team, particularly Phillippa, got plastered in the traditional coloured powder or liquid dispersed on this occasion. Cold beers at the Fairlawn finished the day and by 2.15pm on the afternoon of the 4th Dr. B. and your scribe were supping proper ale in the Hunters' after a very successful, if somewhat traumatic, expedition with 16 kms surveyed and 13 important connections established.

Apart from the above lots of people spent days recceing, rope washing, computing data and drawing up surveys. Fraser and Phillippa introduced a novelty item with a spoof video of 'Big Brother Meets Father Ted' - essential viewing at this year's Hidden Earth Conference! The usual thanks go to all those who worked

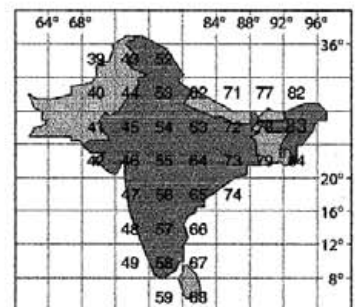
The Abode of the Clouds Expedition



Shnongrim Ridge

Meghalaya State
INDIA

scale : 600m-grid
© Tom Arbenz / SSS / MAA



hard in many ways to accomplish this and particularly Maureen and Brian for again letting us turn their house into a transit camp and caving hut.

Some facts and figures

24 caves, 16 of which were previously explored, were surveyed and photographed resulting in almost 16 kms of passage, 11.8 kms of this being on the ridge where there are now 138 kms - the greatest concentration of cave passage in one area on the Indian sub-continent. The total length of passage found by these Meghalayan expeditions is now over 310 kms in 653 caves with another 450 yet to be explored! The **Krem Liat Prah** system was extended from 22.202kms to 25.225kms and the almost connected **Krem Labbit (Moolsnagi)3** from 649 metres to 3.775 kms. Its connection with **Krem Rubong 1** gave a final length of 4.590 kms. The **Krem Umthloo/Krem Synrang Labbit** system has jumped into third place at 18 kms. **Krem Tyngheng** went from 7.752kms to 9.221 kms and the **Pielklieng Pouk/Sielkan Pouk** system from 10.428 kms to 12.434 kms. Two promising caves for next year are the **Sngad River Sink** at 1.265 kms and **Krem Kdong Thloo** at 1.185 kms. Much of the ridge exploration was greatly helped by Thomas Arbenz's magnificent map to which he has dedicated most of his limited holidays.

The Longest and Deepest Limestone Caves in the Indian Sub-continent - March 2007.

1. Krem Liat Prah system - 25.225 kms. 2. Krem Kotsati/Um Lawan - 21.53 kms. 3. Krem Umthloo/Synrang Labbit - 18.091 kms. 4. Synrang Pamiang - 14.157 kms. 5. Pielklieng Pouk/Sielkan Pouk - 12.434 kms. 6. Krem Tyngheng - 9.221 kms. 7. Krem Shrieh - 8.862 kms. 8. Krem Mawkhyrdop - 7.194 kms. 9. Krem Lymput - 6.641 kms. 10. Mondel Kol - 5.831 kms.

1. Synrang Pamiang - 317m. 2. Krem Kotsati/Um Lawan - 215m. 3. Krem Umjasew - 197m. 4. Krem Umthloo/Synrang Labbit - 188m. 5. Pielklieng Pouk/Sielkan Pouk - 180m. 6. Pakaw Pouk - 170m. 7. Krem Shrieh - 169m. 8. Krem Risang - 154m. 9. Krem Wah Ser - 145m. 10. Krem Shyien Khlieh - 143m.

All are located in Meghalaya State.

Selected References:

Belfry Bulletins 516, 519, 522, 525, 527 (This diary article was published in error; all information therein being included in the article in 525).

Grampian Speleological Group Bulletins 3rd Series Vol. 5 Nos. 4,5. 4th Series Vol. 1 Nos. 2,5; Vol.2 Nos. 2,4. Vol.3 No.1

APPLECROSS NOTE:

Whilst obtaining Gaelic translations for the forth-coming Caves of Kishorn and Applecross, some changes to cave names have been made.

Callum MacDonald (who helped translate for the Scottish Parliament) suggested that Cave of the Liar would be better rendered as: **Uamh a'Bhreugadair**, and this is the version which should be used in future.

Richard Simpson

TWO CAVES AT ARROCHAR

By Alan L. Jeffreys

In March 1966, annoyingly some months before the club commenced using log books, a group of members descended on Arrochar in the trusty club lorry to sample some fissure caves. On that occasion only a couple of 30ft ladders were carried and since we did not climb up beyond the tree line, none of the deep fractures later explored in 1985 were visited, but in a forestry plantation consisting of mature conifers we came across a veritable cornucopia of small caves offering excellent sport.

I was not paying much attention to exactly where we were, being much too excited scrambling in and out of various holes on either side of a green forestry road. Consequently the intervening forty years have clouded memory to such an extent that when we returned to Arrochar I could not identify the locale. Needless to say, in those distant days there was not a great deal of proper recording done, the brief Bulletin report ⁽¹⁾ merely stating that although there seemed to be about “two million” holes, none was really worth full-time exploration.

Recently, while ferreting through club records, I discovered fragments of Peter McNab (Snab)’s notes which record at least two of these small caves and, significantly, supply grid references (the old OS 1” sheet 53) from which I find that subsequent visits did not travel north far enough along Glen Loin. Whether the woods have been felled and/or replanted I have no idea (they are still shown on the Landranger sheets), but for a pleasant day’s caving, this area provides an opportunity for new explorations without vast expenditure of effort. Snab’s descriptions are as follows:

SLIT POT

A’Chrois area, Arrochar, Argyll
Alt. 270 ft
NGR NS 296060 Depth: 35ft

Follow track from locked bar over small rise to slight left hand bend. Climb up steep bank and several open fissures are obvious. Lowest contains Goon’s Grovel. Slit Pot slightly above to the right. An open fissure receding into the rock has an opening at the entrance. This leads to a tightish fissure 35 feet deep and about 40 feet long, which is either a difficult chimney or a fairly easy climb with a 20ft ladder. Mica schist.

HENDERSON POT

A’Chrois area, Arrochar, Argyll
Alt. 350 ft
NGR NS 297062 Length: 110ft

Follow main hollow up from Slit Pot or follow track right round hairpin bend and look for noticeable fissure on right hand (downhill) side of road. Cave drops for a few feet before sloping steeply up. Very roomy at this point. A short sporting ladder pitch at top of bank leads into a fissure at 90° to entrance chamber. A tight squeeze leads to a shaly slope and a small chamber. Mica schist.

Reference:

(1) Jeffreys, A.L. [Ed] (1966) Area Meet Reports. Bull. GSG 1st Series 3(1), page 2.

A RETURN TO IRAN AND GHAR PARAU-OCTOBER/NOVEMBER 2006

By Simon Brooks

Introduction

In late October through to early November 2006 I was privileged to be able to join a team of 21 cavers led by Yuri Evdokimov from Russia on a visit to Iran as part of the 'Parau 2006 Expedition'. The team consisted of 19 cavers from various parts of Russia and Shary Ghazy, an Iranian caver who now lives in Germany and myself from the UK. The Russians were a strong and well-equipped team with good experience of deep caves at high altitude, including participants from the deep Krubera-Voronja Project. The main aim of the expedition was to reach the bottom of Ghar Parau, dive the sump and climb avens etc in an attempt to extend the cave and, if time allowed, extend another cave called Ghar Sarab in the Hamadan area.



The camp site at Kul-e-Parau, Iran

Photo by Simon Brooks

Ghar Parau, situated high in the Zagros Mountains near to Kermanshah in western Iran is possibly the best known Iranian cave outside of Iran. In the UK it has something of a celebrity status due to the fact that it was the focus of two major UK expeditions in 1971 and 1972 and surplus funding left over from the expeditions led to the setting up of the grant-giving Ghar Parau Foundation. The cave descends 22 pitches to reach a depth of -751m where it terminates in a tight muddy sump. Ghar Sarab by contrast is a horizontal water cave situated near to Hamadan. This was originally explored by the Hamadan Mountaineers (Sina) Club in the 1950s and partially mapped by GSG's very own Pete Dowswell and Andy Peggie and co. who were part of the Napier College of Commerce and Technology (Edinburgh) Hydrographical Expedition in 1973 when 1.6 kms were surveyed. I visited the cave in 2001 as part of a German-British team and realised that the cave could easily be extended.

In the winter of 2005/6 Yuri Evdokimov, leading a small team of Russian cavers, visited Ghar Parau and reached a depth of -400m. Realising the cave and the surrounding area still had good potential, ropes were left in the cave and plans were made to return with a bigger expedition in 2006.

Exploration in the Hamadan Area

I travelled out to Iran a few days before the Russians arrived and met up with Shary Ghazy. Together we travelled down to Hamadan where we met up with Yousef Nejaei from the Hamadan Mountaineers (Sina) Club, a contact that I had made when exploring Ghar Alisadr with a German and Iranian team in 2001. We then spent two days in the Hamadan area visiting the Ghar Alisadr show cave and Ghar Hizch (Hizch Cave, aka Ghar Hezej) where in excess of 460m of dry horizontal passages were mapped and photographs taken. Since my last visit to Ghar Alisadr in 2001 there have been some significant developments to the visitor infrastructure and a significant rise in visitor numbers from 400,000 per annum in 2001 to over 600,000 in the period from January to September 2006. Nevertheless the cave was coping remarkably well and doubtless making a lot of money.

Ghar Parau and Exploration on Kul-e-Parau

Meanwhile the Russians had been travelling overland from Moscow in three very well laden vehicles and on the morning of 29th October arrived in Kermanshah where they set up a base camp. Shary and I met them there, equipment was sorted, and the following day we began the ascent to Ghar Parau. The weather in Kermanshah had been getting gradually worse, cold with heavy rain and low cloud enveloping the mountain tops. Laden with huge amounts of equipment packed into massive rucksacks we set off up the mountain accompanied by Yousef Sornynia from the Kermanshah Mountaineering Club. The mountain scenery (when it could be seen) was stunning and progress was steady but due to the worsening weather we were forced to overnight, rather cosily, in a rock shelter/cave refuge at 2400m altitude. The following day we arrived on the Kul-e-Parau plateau and set up camp just 50m from the entrance of Ghar Parau. Conditions on the plateau had deteriorated further with thick fog, rain and temperatures descending to nearly zero. To make matters worse the whole of the plateau had turned into a sea of mud which made walking around treacherous, not to mention downright difficult as within a few steps of a tent footwear became laden with several kilos of sticky mud.

Some of the team rested whilst others returned to the rock shelter/cave refuge to collect more equipment and supplies. That evening Elena Shevchenko and I set off into the cave to begin rigging the entrance pitches. Progress was slow with pitches having to be re-bolted due to the excessive amounts of water entering the cave rendering the traditional pitch hangs unsuitable. Eventually lack of rope and time saw us returning to the entrance only to find that the fog had thickened and it had started to snow - great! The following day (1st November) a Russian team and I descended to the rock shelter/cave refuge to collect yet more equipment and supplies. Meanwhile another Russian team pushed on into the cave, again experiencing problems due to the need to re-bolt pitch hangs to avoid the water. Arriving back at the camp with supplies I then went into Ghar Parau with Shary and Yousef to take photographs. The next day Shary and I descended from the plateau camp as we had promised to be back in Hamadan to meet a team from the Hamadan Mountaineers in order to explore a new cave in the Hamadan area. The descent itself provided plenty of interest especially when the mist reduced visibility to less than 10m and the sound of wolves howling nearby added an extra dimension to the descent. The Russians pushed onwards deeper into Ghar Parau as the weather worsened, the temperature dropped to minus 5 and it began snowing heavily. At a depth of around -400m the need to re-bolt/re-rig virtually every pitch and worsening weather conditions indicated to the Russians that they were quickly running out of time, making reaching the bottom of the cave, diving the sump and climbing avens unlikely. Somewhat disappointed and frustrated by the poor weather they decided to cut their losses and de-rig Ghar Parau, turning their attention to the many other shafts/entrances on the plateau. Over 30 entrances and shafts were located, some of which were explored with one reaching a depth of -100m.

Ghar Sarab and Ghar Alisadr, Hamadan

Arriving back in Hamadan on 3rd November I found that the expected trip to the new cave (Dodza Ghar/Smoking Cave) had been called off due to a disagreement over which village owned the cave. As an alternative a visit to Ghar Alisadr had been arranged to assist the Hamadan TV company in making a documentary about the cave and about Yousef Nejaei who originally found and explored the cave in the 1960s. This made for an interesting day with even Ghar Alisadr's spacious chambers feeling somewhat crowded with the addition of directors, film crew, sound recordist, lighting engineers etc. The next day we accompanied the Hamadan TV crew to Ghar Sarab where yet more filming was done. Ghar Sarab looked somewhat different than it had in 2001 as a recently constructed irrigation scheme built to take water from the cave had succeeded in lowering the water table in Sarab by over two metres. The cave now looks very different from that recorded on the 1973 Napier College expedition survey.

On 5th November I returned to Tehran and the following day flew back to the UK. Shary, Yousef and the Russians made another trip into Ghar Sarab with the Hamadan TV crew and camping at the cave entrance they spent a further two days exploring, concluding that there was a significant amount of new passage to be

surveyed.

Conclusion

Once again Iran proved fascinating and the Iranian people hospitable and friendly. The link up with the Russian team was excellent and despite the original objectives of extending Ghar Parau and surveying Ghar Sarab not being fulfilled the trip proved great fun and in many other ways successful. More was learnt about the Ghar Parau area and the potential for further discoveries is high. Likewise Ghar Sarab has certainly more to offer. Most importantly some of my long-standing Iranian caving contacts were strengthened and many new contacts made. Hopefully I will be able to return to Iran soon.

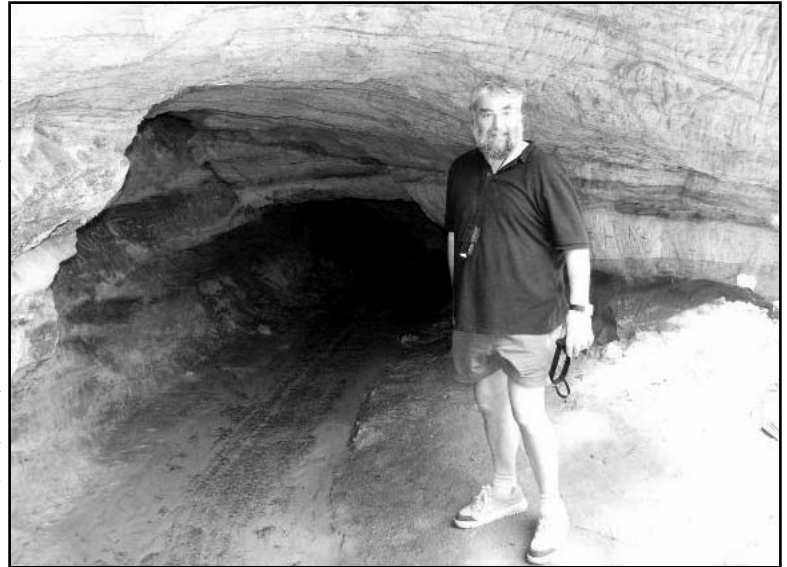
SOME BALTIC JOTTINGS

By Dick Grindley

The caves of Estonia and Latvia are for the serious caver, not the keen, not the enthusiastic, caver but the serious caver. The sort of caver who, if he was a stamp collector, would collect printing flaws of one printing of one issue of one stamp!! There is virtually no limestone and what caves they have would hardly warrant entry in a list of Scottish cave shelters!!

However, for what it's worth:

In May 2007 Anne and I visited Taevaskoja in Estonia to 'explore' Emalätte Koobas (Mother Spring Cave) and Neitsi Kooba (Virgins Cave). The caves are located at Taevaskoja, seven km north of Polva, just off the Tartu-Polva road [58° 06' 37"N, 027° 02' 46,4"E]. The Lonely Planet guide to the Baltic Republics refer to Väike and Suur Taevaskoja as caves; this seems in fact rather to be the names given to parts of the river cliff. The actual caves are named as above, Emalätte Koobas being a 10-15m deep hole, one metre high, in the base of a sandstone cliff. As visitors were being encouraged to drink the spring water exiting the hole because it either brought good luck and/or cured fertility problems, I thought a sweaty Scottish caver having a crawl in the mud would be considered not quite the done thing! I hope Neitsi Kooba's namesakes don't prove as illusive as the cave itself. All I can say is that it's in the trees - somewhere behind and above the cliffs, about 100 metres downstream. At 37° C, without a breath of wind, I declined to go and have a second look and went to find a beer instead..



Dick Grindley in Emalatte Koobas, Estonia (Note de rigueur Baltic caving gear)

Photo: Anne Grindley

The next day we went to Piusa Sand Caves found, surprisingly enough, near Piusa, south east Estonia, some four kms north east of the Estonia/Russian frontier.

These abandoned glass sand mines are located in the low, tree covered hill immediately behind the Piusa railway station, five kms north of Piusa on the Obinitsa-Orava road. Turn right immediately after passing under a railway bridge. As the access road (plus most of the Obinitsa-Orava road) was being re-graded and surfaced we found the show caves actually closed, locked and devoid of any staff. There is however another series of caves beside the road, just before the show cave, and although fenced off this could be easily circumvented. However as these parts of the mines are home to the largest colony of bats in the Baltic Republic

I restricted my exploration to one, unfenced through trip. Four metres total length!

Later, having relocated to Latvia, we tracked down some caves at Sigulda, 39 kms north east of Riga on the A2/E77 Riga-Pskov road. There are two adjacent caves located in a river valley between Sigulda and Turaida Castles, well sign posted (provided you read/understand Latvian!)

Gutmana ala (Gutmanis Cave) 57° 10' 34,1"N 024° 50' 32.9"E
Victara ala (Victor's Cave) 57° 10' 29.7"N 024° 50' 29.3" E.

Both are glorified rock shelters. At 10m high and 25m deep Gutmana ala is the biggest cave in the Baltic Republics; the water from its spring is supposed to remove wrinkles.... I'm still waiting to see if it has worked for Anne! However the 4-5 centuries of graffiti carved in the soft sandstone around the entrance are worth a stop in their own right.

Both caves are connected to a legend of Maija 'The Turaida Rose' (1601-1620). This involves a beautiful maiden from Turaida Castle, a gardener from Sigulda Castle and a nasty Polish soldier. The story, needless to say, does not have a happy ending - for either of them!

-----oOo-----

TINY NEW FINDS IN ASSYNT

Assiduous digging by club members and visitors have revealed a couple of very new, very small caves to add to the list of Sutherland caves.



Mention has already been made of 3G's Cave (named after Phillipa and Peter Glanvill and Derek Guy). At roughly the same time, members of ISSA enjoying an arty visit to Assynt gave Snab and colleagues an excuse to wander over the Knockan Craggs, to discover and later excavate Torren Pot, a narrow, vertical shaft at roughly NS 195096 which consists of a 6 metre ladder climb to a dug out floor choked with earth and rubble. The shaft is covered with a red metal grid to prevent stock falling down it.

Approximately 100 metres upstream of Uamh an Claonaite, on the left hand side of the valley is a 3m deep shakehole with two tiny streams sinking into it (although it was dry when being dug). Martin Hayes, Roger Galloway and John Crae spent some time digging this site in July and at a depth of 2 metres revealed a small passage some 2-300 mm high extending about 3 metres. Grids were installed to shore up loose and dangerous shakehole sides. The 'cave' was named 4 Humps Cave.

A. Jeffreys

**M. Frithe and J. Fleury at the Entrance to
Torren Pot, June 2007.**

Photo: A. Jeffreys
