

1997 TOP CAMP LOG  
"EL REGALLÓN"

Log

Black n' Red  
Ruled  
A4



Gavin	"which knobble?"	have	"The Spelocade"
Keith	"Doolittle"		"Hyams"
Alison	"It's too cold ..."	"Pybus	- "Waterfall"
Farella	"Do we need the Dillo"		"Brown"
Jo	"One step beyond."		"Whistler"
Will	"Indian rope trick"		"Jeremy"
Olly	"Delay tactic"		"Hilton"
Nobby	"The knife"		"Mumford"
(Nick	"Marching orders"		"Burckham")
Andy			"Kwag"
Fleur			"loveridge."
Pete	"Life is cheap"		"Hartley."
Huw			"Jones"
Lou	"The Mad ..."		"Maurice"
Ali			"Stammers"
Rob	"What would you do if I sang out of tune?"		"Garrett"
Rhys			"Williams"
Ben	"Sheath shagger"	AKA - Fucking Artistic Spastic.	"Lovett"
Tim	"Bimbo Mayhem"		"Gulford"
Jonathan	"Angore cackles look at my arse"		"Cooper"
Ian	<del>XXXXXXXXXX</del> "Jan"		"Bensan"
'Uncle' Rod			"Mumford."
KEV			"WELCH"
Paul			"Mann"



# El Regallón 97 Top Camp Logbook

Monk: 'Where can I enter Zer?'

Master Jersha: 'Can you hear the babbling brook?'

Monk: 'Yes'

Master Jersha: 'Then enter there.'

## Welcome to Top Camp ...

- Have fun and be careful
- Always leave a callout - if you must be underground after midnight, leave a morning callout (in the back of the log)
- Don't forget to radio Los Lagos at 9am and 9pm
- If you're here alone, put thumper out for caves returning in the dark, and cook them a nice meal
- PLEASE write up survey notes on the sheets, & fill in a cover sheet
- Record anything you've done in the log, particularly shaftbashing to avoid duplication of effort.
- Don't shaftbash by yourself
- Fudge is cave food only, so don't be tempted ...
- Collect snow wherever possible - its going to be a dry year.
- Please make a note both here & in the kitty book of anything you buy from expedition, eg batteries or constraints
- If you've time after all the above, go deep ...

'Maximum coherence for Greater Depth'

"Maximum Alcohol for Greater Incoherence."



(2)  
7/6/97

C4 Rigging Trip

Keith, ally, Fenella.

Mix up at the start bring ropes, so we only rigged the 1st 3 pitches (inc. entrance ladder). Put hole in right wall at top of 4<sup>th</sup> but no bolt.

8/6/97 Dear Alan & Fenella Cheers for the write up. It was really useful for planning our trip.

Will Jo + Alison C4. Rigging to end Menster I (in theory)  
Gear taken. 90m rope - Maria Rosa. Double Fisherman's Pox pitch  
55m rope - Menster I.  
20m rope - Insurance  
+ rigging gear for above pitches  
+ pot of Spits.

8/7/97. C4 Rigging trip. Will Alison Jo.

Rigged to top of Maria Rosa. At top of Maria Rosa, left one tackle bag containing 90m rope for Maria Rosa, Double Fisherman's and Pox pitch. Another tackle bag contains 55m rope for Menster I, and 20m rope for whatever you like. Also, bolt kit with handful of anchors & wedges. ~15 mauls. few wires. 4m tape.

Entrance pitch would benefit from a handline for self lining up. Climb up after Space would also benefit from a handline (10m) - it had one last year. Traverse/Space has a bad rub point and either needs a rope protector or another bolt putting in.



# A note on rescue kits

I've repacked the Daren drum marked "Rescue Dump" so it now contains a rescue kit, which can be picked up by the first person down the cave in the event of a rescue. Contents: First aid, brew kit, food, carbide, batteries, bulbs. If we decide we want a rescue dump, we'll have to make up another.

Gavin

## Alison on sleeping arrangements

Did you manage to stay on your ... blow-up thing ... or whatever it was?

11/7/97

Dear Olly & Ferella,

Cheers for yesterday's write-up. It was really useful in helping us plan our trip.

Jo

10/7/97

Keith Alison, Jo

This trip was intended to do a few little jobs & for Keith to try out a deeper trip we didn't get as far as we'd wanted to because of a late start & a relatively slow descent, but we did rig a rope for self-lining on the entrance ladder, & a rope on the climb at the bottom of "space-the final frontier". We also took down a tackle bag containing a brew kit, spare food & carbide ~~to~~ as far as the top of Maria Rosa. Pleasant trip, with good time made on the way out. Jo



10/7/97 Cramin, Olly, Forde

Rigged to Mark Brown who we ran out of rope and rigging gear. Had a rub point at rebelay on Monster Port I, put tackle bag under it which needs to be replaced with rope protector.

Really impressed by Monster Port III, convinced I could feel a rub point when I was pushing back up (probably paranoia, just ignore me).

Cramin suggested splitting pitch with a rebelay to speed things up. Floor at top of Fizzy Willy partially collapsed on way out, making it much easier. Seems to have stabilised. Really fun, friendly cave and my deepest trip ever.

For

A few comments on the rigging:

- 1) The rope on the entrance pitch really should have a second belay if people are going to be abseiling on it
- 2) The exposed scramble down to the head of the second pitch was rigged off a ~~single~~ somewhat dodgy natural - now backed up to the rope on the first pitch
- 3) The entrance pitch would be better rigged for SRT - backup, both belays, check deviation from far wall.
- 4) The rope on the second pitch rubs on the roof when you move or across towards the head of the third pitch - could
- 5) be fixed with a deviation
- 5) There was far too much slack in the rebelay at the head of the third pitch - now fixed
- 6) There was also too much slack in several traverse lines; in some cases you'd be half way down the pitch before the rope caught you; in another place, the rope trailed along a loose boulder slope, and risked dislodging



rocks - most of these are now fixed

- 7) The bolt on Fizzy Willy is far too low, making the pitch head much harder (and more dangerous) than it needs to be: belays should normally be high up
- 8) Whoever first rigged the top of The Monster is braver than me - I don't like abseiling on a ~~bolt~~ single bolt in poor rock with a dodgy backup (second bolt now added)
- 9) The first rebelay on The Monster is very poorly placed: the rope rubs a foot below, and the hang is in the water. I think a better hang would be available from a rise of rock a bit further down and to the right.
- 10) The main hang of the Monster would be quicker and easier if it were split in two: it would probably need a bolt rebelay and a bolt deviation on the other wall
- 11) Cruciform Pitch #1 needs another bolt at the top for a K-hang - I put the bolt in, but didn't have a hanger.

The above probably sounds more critical than I meant to be. The club's rigging has improved a lot over the years, but there are still a few places where it could be improved further.

11/7/97

Fenella and Gavin walked up from Base in thick fog. Fine as far as the Martini Pool, but then went astray, couldn't retrace our steps, and were completely lost until we got back to Seal Row. Moral: follow the route very carefully in the fog, and if you stray, retrace your steps while you still can.



11/7/97 to 12/7/97 Will Nobby Jo.

Rigged to bottom of free + easy. Both Free and Easy and Car-0-nine tail need a rope protector - (just below ledge on Car-0-9 tails). Free and Easy needs denotation as per rigging guide - Rope for Hash Brown w a few metres too short. We had hoped to use the 2em rope to rig it, but it was left at the previous rigging limit as we had expected, and there was no route up to tension where it was. Rope used was that planned for Gooseberry pit. Brien kit and Carbide (large lumps only!) at brien site at bottom of Monster (last year's site)

At top of Free + Easy -

- ~ 10 mainwires + hangers.
- 4 Screen gate crabs.
- ~ 8 Clip gate crabs
- Couple of wires.
- Belt kit with ~ 10 wedges and spits.
- Few metres of tape

So - does absence make the heart grow fonder, or would familiarity breed contempt, even after twelve months away? I actually enjoyed this trip more than I expected to, and contempt certainly wasn't the order of the day - below the bottom of the Monster still seems hostile, and - 450 was probably an ambitious target for a first trip this expedition, not helped by cramp at the bottom.

Team muppet rigged down to within one trip of the bottom, though not without some fun - I still can't believe how the top of Car 0 nine tails was bolted, as it took a combined effort from Will + me; brown trousers, wobbly legs and all, just to put the top bolt back in.

The lake awaits.



12/7/97

Keith, Nobby, Random spectators

Shaft Bashing - F44

Continued through rift on right - short squeeze led to round shaft easily free climbable 3m down. Lands on another small snow plug - tight vertical squeeze between rock & plug - probably too tight & seemed to end anyway. To left is way under large snow plug. We were standing on before straight on under plug crawl over loose boulders - looked rather dodgy. I didn't seem to go anywhere. To left under plug equally dodgy - less visible so small chance may continue, but unlikely. Hole in the middle (ie: vertical middle) visible from base of shaft. Nice place, very pretty, even if it doesn't go anywhere. May be worth going back & - it might have continued but the combination of loosish rocks beneath & a very large lump of ice above put me off going any further. Enjoyable trip anyway - might not have gone very far, but exploring new zone is so much more exciting than rigging old stuff!

Keith

of what did Jo say:

They'd be more fun if more people sat on them.



12/7/97

Oly, Gavin, Fenella (NOT) C4

Rigged down to top of There be Dragons. Gavin went down in front to re-rig High Brown, leaving me and Fenella to make our way down with most of the gear. Fenella jacked after two pitches, leaving me two tackle bags of gear to take down. Got to the anchor after struggling through the breakthrough rift, and rigged the first part to give a dry haul. Eventually made it down to Gooden Pot and met Gavin. We then rigged High Street and found a dry alternative to The Cheat Neerhammer. The pitch There be Dragons requires extra bolts to give a reasonable take off, so we jacked at that point as we were running out of carbide. More carbide needs to be taken down and left further down the cave.

The trip out was swift and uneventful, and we were out by 9.00 ish. Bargain.

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Who said of what to whom ... ?

Who said of whom: "I thought you could just suck it off your socks"

Who said of what: "Maybe he's just got big thighs...."

Who said of what: "I'm not sure screwing it makes any difference..."

"I'm not sure I can be as deranged as you?" - Alison.

"It started out stiff & it ended up all floppy" Alison.



'Ooh! Is that the sun?'

Javi: 'Well, its definitely got warmer, & here's this bright thing in the sky ...'

13 & 14 / 7 / 97

"Counting Lizards"

I counted 34 of those yellow & black lizards on the way up the Aris Path. When I got to Shepards Hut I discovered the others hadn't waited for me, I thought, "Hummm, I'm fucked, its misty as fuck & I haven't got a clue where I'm going." But in a casseroles of inappropriate optimism, daring bravery, and not being arsed to walk back down to base camp again, I decided to give it a try - I'd probably get there, I sort of knew the way & I'd be bound to be OK. I headed off at the base of sod 4 at 9pm & within 5 minutes I was lost! I wandered around thinking I'd stay awake till 11pm on the off chance that they'd come looking for me - kept myself amused for the 1st hour by inventing new songs about being lost with "Fuck" as every other word. Followed various paths that I came across - but I kept being forced off them by herds of bulls giving me nasty looks. One bull very nearly charged me - I took to carrying a rock with me for the rest of the night! By midnight I was pretty knackered & I realized I was totally & utterly lost so I found a hole, put the rope I was carrying on



The ground he tried to go to sleep inside my rucksack (cos I only had shorts on & no survival bag). Didn't but my leg - I felt something warm crawling up my leg & suddenly my breathing slowed & I felt faint - I jumped out of my rucksack & looked inside - didn't see much except a snail though! Thought I'd have another look around so I walked to the top of the hill, but no luck. Walked back down to my 'bed' but surprise surprise, it had gone. Bollocks. That was when I started to get pissed off.

I walked up & down the hill again in 50 directions but I couldn't find the rope. In the end I tried to sleep on a rocky thing so I didn't use up all my torch batteries. Slept on my rucksack this time so I was pretty cold in just shorts & fleece. - woke up after 1/2 hour shivering so I thought fuck this & wandered around some more. Bumped into another path so I followed it for a bit. & then I saw it, that wonderful, beautiful splodge of yellow paint! I beat down & kissed the bloody thing then I set off on the Aris path, arriving in Base Camp moments before my spare torch batteries packed up on me at 6:30 am.

Morals of the story:

- 1) Always carry your survival bag with you!
- 2) On a misty evening, it's worth waiting that extra 5 minutes for the last person in the group as it might save them having to spend the ~~last~~ night freezing their bollocks off on the mountain.
- 3) Don't count lizards on the way up the Aris path, it's bad luck.

more like 4 hours.

Keith



Pedantic note: they're not lizards, they're Fire Salamanders.

Ferella: "Do we need the dille, or just the hammer?"

14/7/95 Oly, Gavin, Alison, Will  
locality F41 / F80

We located F41 and F80 today. F41 has very little snow in it compared with previous years, so may be pushed successfully this year. A 140m rope was left at the entrance.

F80 is a somewhat longer walk away requiring the negotiation of an entertaining scree slope. It is just off the ridge in the Leon area, and a 200m rope was left there. F81 was also found, a little higher up the ridge. F81 has a Leon mark, but no OHCC tag. F80 is now marked as H1.

Oly.

15/7/95 Oly, Keith, Will, Jo (sunbathing)  
rigging F41.

Will rigged the first pitch while I started uncoiling and packing the rope. 2 1/2 hours later Will had lost enthusiasm while waiting for me to untangle the rope. In the end, Will finished coiling out the rope while I got changed, and I then proceeded down the ~~cord~~ to continue the rigging, with Keith in hot pursuit.

I managed to rig down to the near the bottom of the third pitch (ice rift), and I have left the rope in the table-sack hanging from a bolt belay.



I ran out of slings, so more will be needed. The bolt hit and the rest of the rigging gear (a couple of snap cars, a reasonable number of levers and maillons) is at the entrance along with a new 200m length of rope and a piece of piece of the 140m rope which had to be clipped because of a nub point. The cave is wide open...

p.s. WARNING!

There is a large loose boulder at the bottom of the first pitch. Do not annoy it, as it has a short temper. It may not be possible to garden it safely without derigging the cave.

Oh.

Will: "I always tie a knot in both ends of the rope so that I don't prussik off the end"

Will: "Perhaps you should drag a spare jammer up the rope behind you, in case the rope breaks above you"

15/7/97

Janis & I walked up Punta G. & retrieved the rope from near F30, having established that it was indeed MS-67. A phone call to JJ is our last resort, I guess.

Stumbled along the ridge for a couple of hours without finding very much, though climbing down the face to what might be F1 (Cliff Lift Hard?) gave some interesting views down onto what might be entrances further down towards the base. Came back via F41 to find that Olly had just got underground. -

NJM

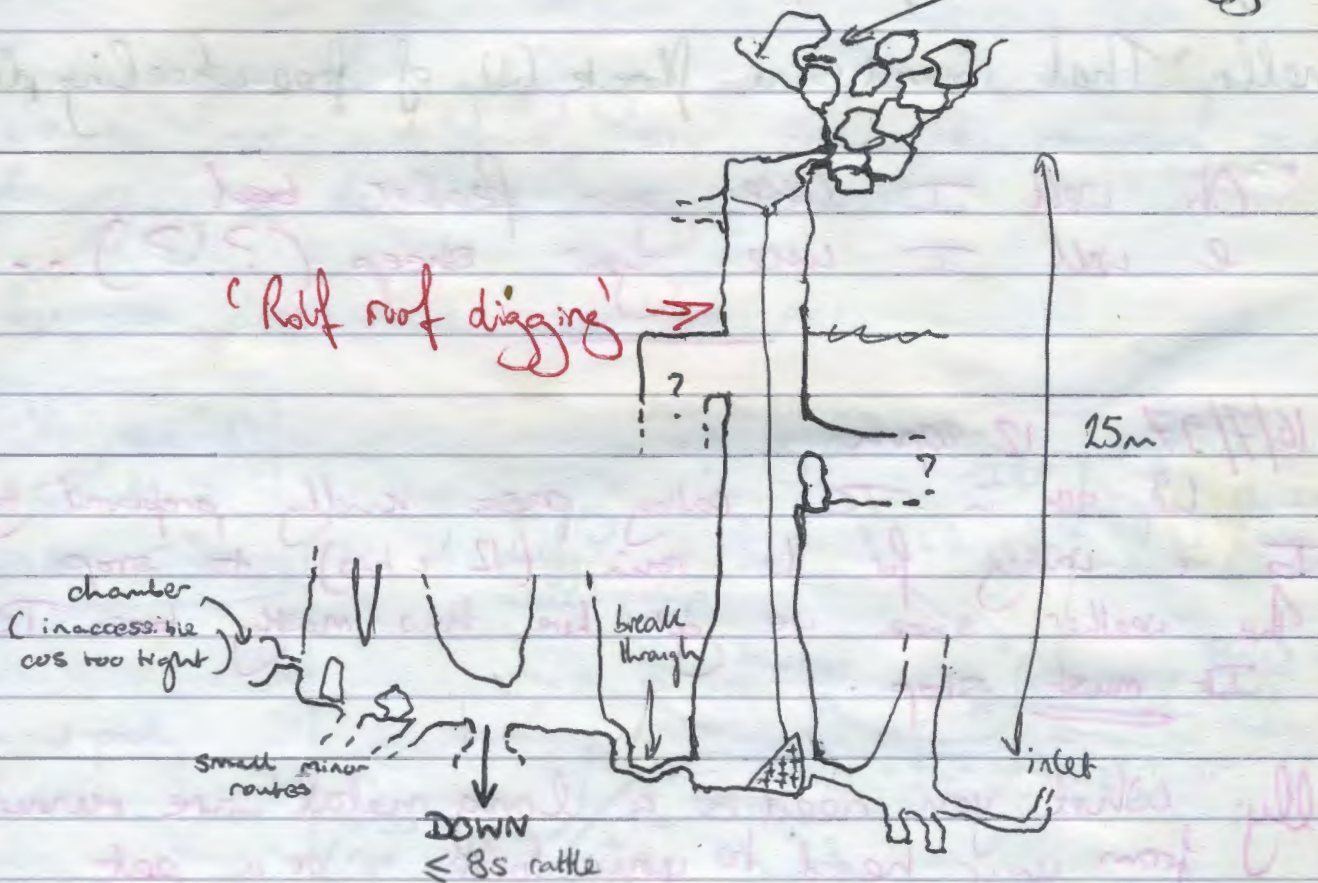


first finds of 97 expedition are in :

D7 (!) 15/7/97

Nobby, Alison

Bird's Nest  
(+ eggs)



We climbed down through the boulders in the shake hole and then rigged down about a 25 m pitch with a tight take off and a small amount of snow at the bottom to land on, which was fortunate as otherwise the rope would have probably been to short. At the bottom there seemed to be lots of promising leads but they all seemed to choke, until we were left with one nasty looking squeeze which seemed to have a huge draft coming out of it, but which involved pushing feet first into a tight u-bend with a sideways s-bend as well. Nobby got through feet first and I followed head first when I knew I'd be able to turn round + get out again. This lead into more passage, with a hole in the floor which had about an 8 second rattle, but we didn't have any rope with us, so we looked around at some small things going off the main passage and then headed back out. Unfortunately, we discovered a birds nest at the entrance so we decided it might be a good idea to leave the cave alone for a bit.

Alison



Nobby: "I lost my worm"

Farella: "That sound is a flock (?) of free-wheeling planes"

Oh well I like your feather bed  
I will I like your sheep (?!?) ...

16/7/97 12:40pm

We sit in TC eating pasta kindly prepared by  
Jo & waiting for the rain (12 1/2 hrs) to stop.

The weather since we got here has mostly been TASS!  
It must stop.

Ollie: "What you need is a long metal wire running  
from your head to your toes... or a pet  
salamander with a kite"

Rescue Call Out midnight 17/7

Nobby and Keith missed call out from F41

First wave: Ollie and Will to go to entrance to  
assess situation, with rescue down. 0:16, left  
camp

0:17, lights spotted, Rescue stood down,

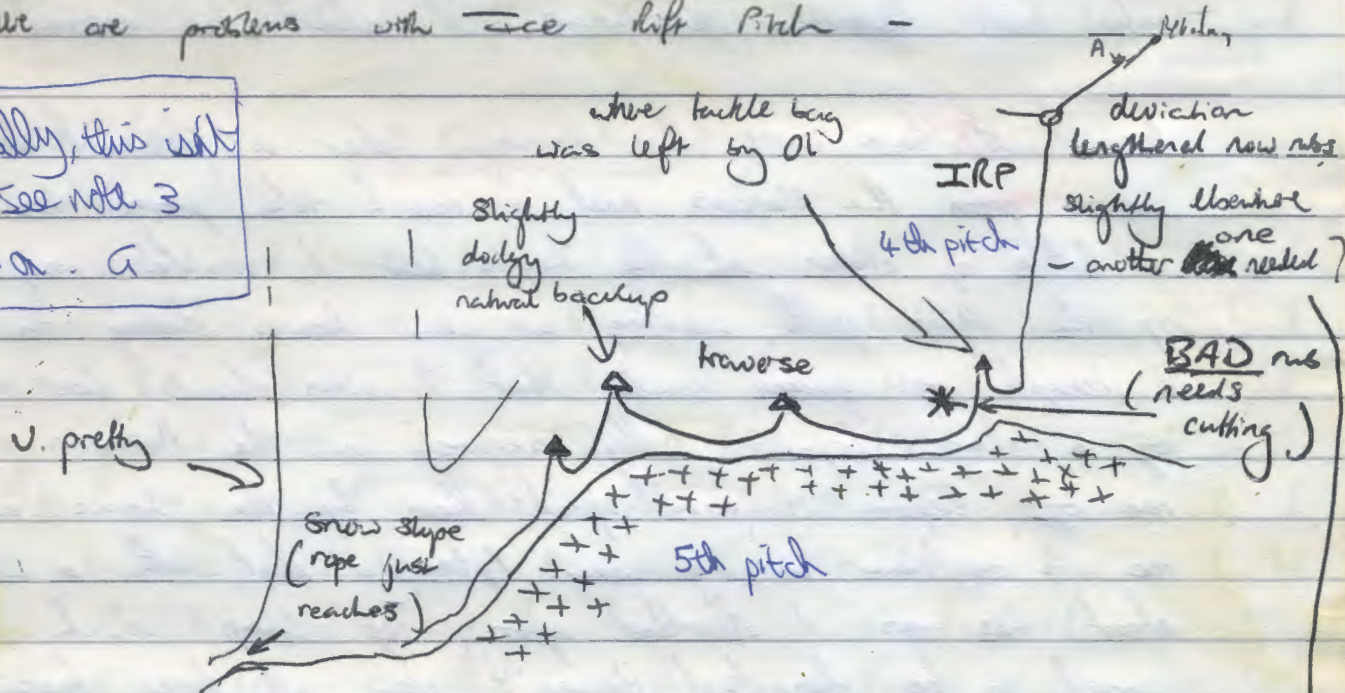


F41 16/7/97 NJM, veik

Sorry everyone for getting you out of bed last night. We were over-ambitious, slow, without the necessary sense of urgency & then lost in the mist.

There are problems with Ice lift Pitch -

Actually, this isn't IRP. See note 3 pages on G



Not too sure about the big perched boulder that provides the main belay at top of IRP (or 2nd pitch). There's a selection of gear at the entrance, & a short rope hanging from a rebelay further down.

Very slight ~~big~~ fray 2m below rebelay at pt. A on diagram. Rubs on ice further down this pitch.

Until this is fixed make sure U stay to right of pitch (facing rock) i.e. heading straight towards rebelay. This helps to avoid the rub point. Also, if you don't do this, you can get into all sorts of trouble at the rebelay.



17/7/97 - Yes, \*\*\*T's back for a second time. For those who don't know me, I do consider myself to be a right one, as do most of those whose misfortune it was to meet me last year. However, I have promised Nobby that I will be nicer to this year's expedition members than I was to Tim last August, who, even though I've only been here a few hours, I admit to missing already.

Arrived at base camp this morning, after a pleasant hitch across from the Cercos and a coach ride from Leon. After a bottle of cider at the Lagos bar I made my way up the Aris path, wasting a few hours trying to convince a couple of young goats that I was their best chance of a slag before Billy arrives in the Autumn.... They ran off before I could grab them by the horns and left me to continue on my way. After a chat with a shepherd about his cows I stumbled upon Top Camp which I found to be deserted. Haven't you all been busy!

Nick

17/7/97. Shaft Bashing F88. Will and Keith.

After a late start whilst I built up enthusiasm for canyoning opposed to sunbathing (sorry Keith!) we set off for F88, as yet unmarked, but spotted by Gavin on the way back from F80. Lies further up the side of the Green Tangle a few shakeholes away from F41 at base of Cliff.

Keith put in backup but whilst I changed I abseiled down the obvious gully looking for a good bolt placement or natural - traversed to right and put in bolt for hanging planning detacher from opposite wall. Climbed to surface and rearranged backup but found a few tonnes of rock piled above chock route. Tried gardening unsuccessfully. Abseiled down to fix detacher - unsuccessfully. Got scared as boulders were vibrating



So made a hasty exit. I'll leave it to someone more proficient (I think).

→ These boulders hovering above the top ledge look very dangerous - there's a whole river of them just waiting to cascade down the pitch at any minute. They moved a bit by touch as well.

17/7/97

"Goat Wars"

Keith

I climbed the green tongue to watch the sunset. High above on the peak of Verdellanga they watched me. 30 of them flanked me on the right. I held my ground. They approached from the left, 20 of them with 30 more in the rear. Strange noises abound, the standoff had begun. One brave soldier from the left front made his way towards me. I launched my 1st missile. He retreated. By this time reinforcements had arrived from both sides & they were at least 80 strong in total. A five minute lull as they regrouped and planned their strategy. I waited. The same it was to be. They started moving forward from both sides, flocks of four legged animals, united by fear, valour & small black droppings. This time they were serious. I had no choice. It was either them or me. I retreated to a safer position.

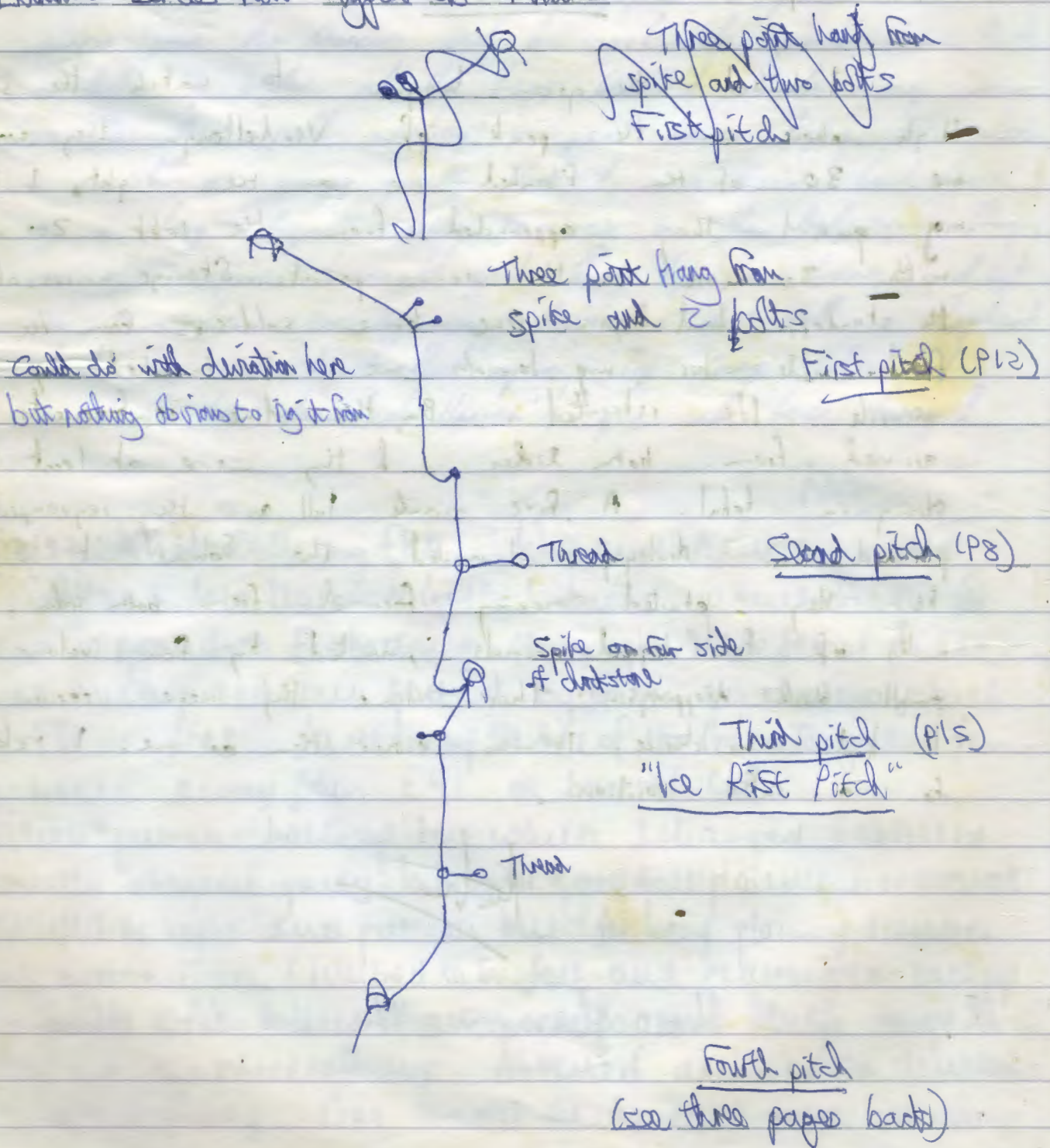
Keith

"I'll just spend the afternoon with the d/ds, then." - Will



Didn't like the rigging on the first three pitches, so decided to re-rig them. Unfortunately, the rope went the wrong side of a chockstone at the top of the third pitch, and was tied off below, so I had to re-rig using a new rope. Then found that the bolt driver had lost its pin, so returned to camp to fix it.

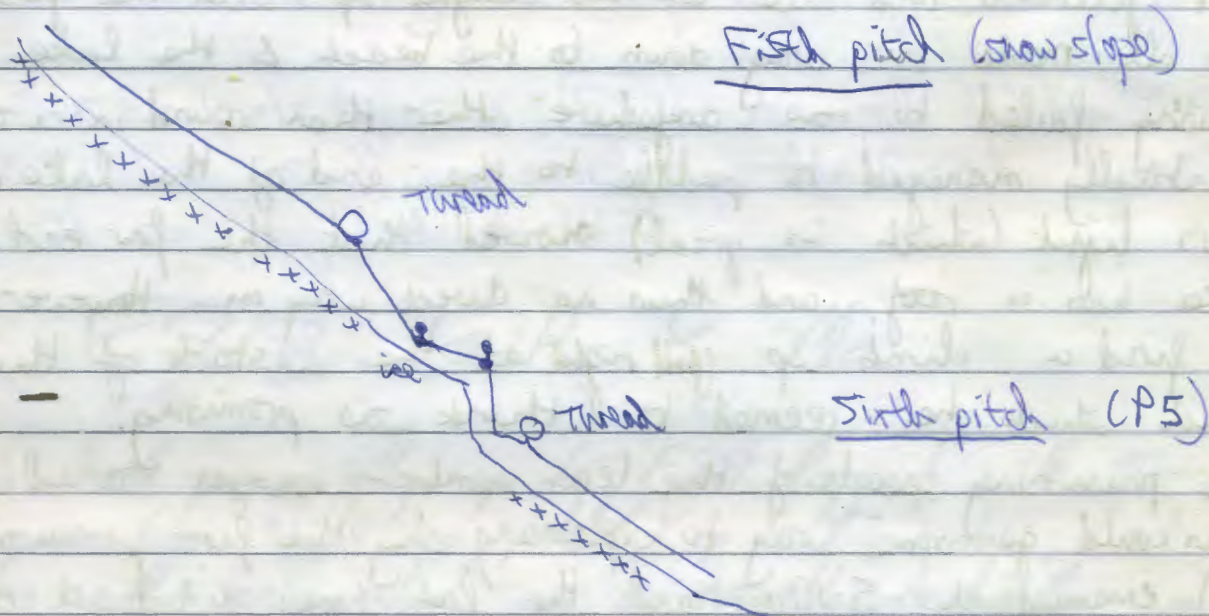
Entrance series now rigged as follows





The third pitch, "Ice Rist Pitch", is very different from four years ago - then it was solid ice on both walls; also the pitch used to be deeper, although the present route gives a nice hang. Replaced the rebelay on the fourth pitch by a deviation, which seems to avoid all the Tub points.

Reached the point Nobby got to the previous day, rigged the rist, and then a shaft drop into a chamber



At the bottom, the chamber choked with rocks. A climb up to the left also choked. Climbed back up, and looked at a ledge to the side of the fifth pitch. Two holes down through the snow: one definitely chokes, and I didn't fancy the other.

The one possibility that we spotted was to go the other way at the bottom of the fourth ~~pitch~~ pitch: it doesn't ~~look~~ look very promising, although needs checking.

Derigged the old rope on the way out, getting it horribly tangled round the new rope, deviations, rocks, etc.



17/18. 7. 97 - C4 to beach

Ferella, Nobby, Olly, Jo

This trip was notable in that on it lots of records were broken. No, not the most efficient trip ever, or the most distance pushed in one trip. Nothing so exciting. It was, however, Ferella's Olly's & my deepest trip ever and my longest ever in time. On the way down to ~~the~~ "Marie Celeste" we worked in 2 waves, with Nobby & Olly taking tackle down first and rigging "M.C.". Ferella & I followed and once we had caught up with the first wave we all made our way down to the beach & the lake. Olly, having failed to row anywhere other than round in circles, eventually managed to paddle to the end of the lake where Ker's light (which is great) showed that the far end of the lake has a reef, and thus no direct way on. However, Nobby did find a climb up just right at the start of the beach which he seemed to think was promising.

The paddling speeds of the team members ~~never~~ varied wildly. This could go some way to explaining why the first person out (Ol) emerged at 5:10am, and the last (me) didn't get out until 9:00am. Pleasant little 19hr trip!

Alison says: "You do get some very black cows"

Ferella: "The sky is so blue its almost black"

Keith: "What time is the midday bus?"

Nick: "Keith's got loads of potential"

Jo: "Mines got big brown holes in the ~~arm~~"

Keith: "How do you know which ways left & which ways right?"



# Shaft Bashing

Gain 18/7

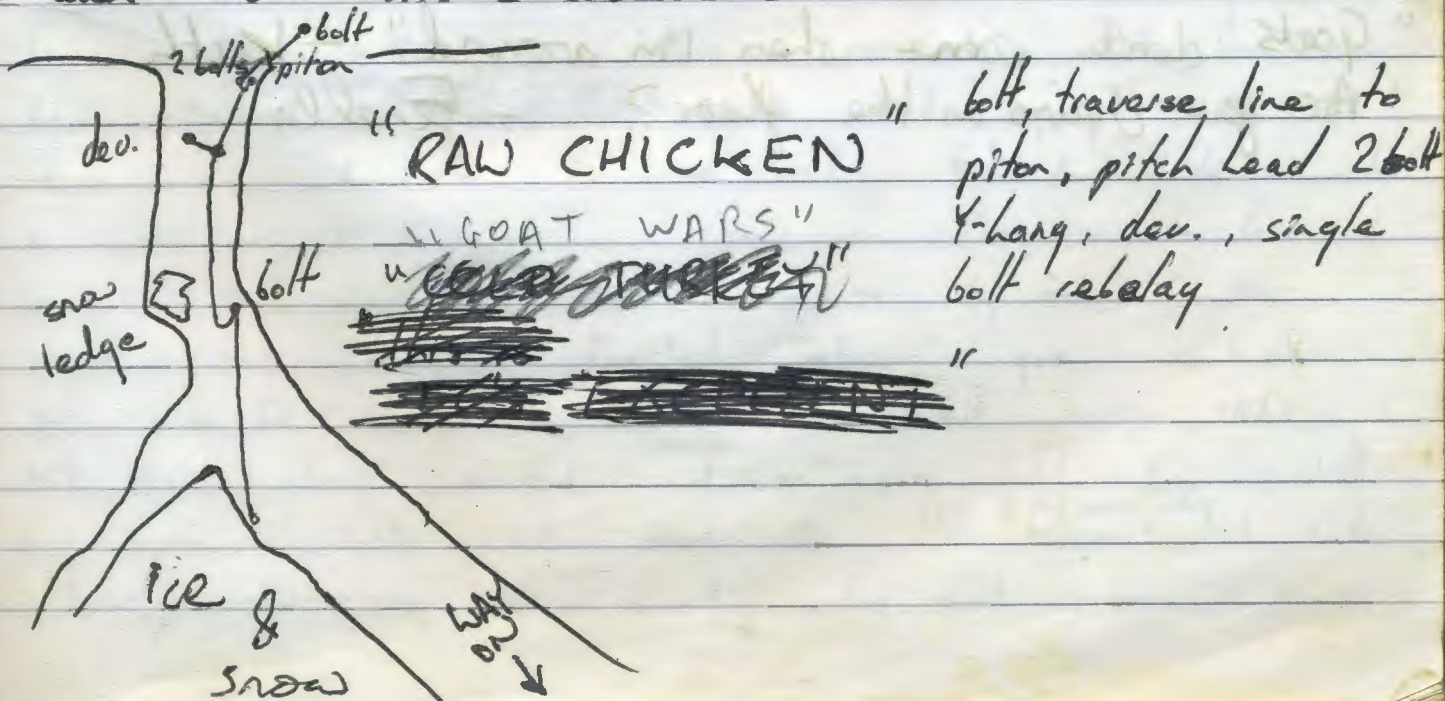
Went up flank of Cabron's past F5. Found F28, unbottomed, and worth checking. Then up to F5 - there's a small rift to the right that contained a Petzl bolting hammer! Might also be worth checking the rift although it's quite tight.

About two levels higher found **F89**, a small crawl, which seems to continue. Bearings: 300° to F2, 244° to right hand end (cliff) of Punta Gregoriana. Camp is not quite visible from the cave.

Another two levels higher is **F90**. Snow pole 8°, top of F13 rock 56° (about 200m), cave slightly higher than F13 rock. Impressive rift with snow plug heads into hillside.

## 18/7/97 - F88, Keith & Me

SL.  
Took Keith for a jolly up to F88. Rigged with 90m of rope over two 35/40m pitches (Y lp, 1s: Y2s, dev., 1s) squealing with exaggerated joy as Keith led the way into virgin hde. Big & very, very pretty with ice slope to possible continuation.... Made our way out slowly, pausing for re-rigging, photos and re-education. Might be back tomorrow.... re-educated!





Keith's bit - beware of loose rocks at top on what used to be a pretty hairy traverse but is probably easier now it's been re-rigged. 1<sup>st</sup> pitch, "Raw Chicken" (40m) lands on a small snow plug with solid floor (beware of loose rocks at top). Next pitch "This is Excellent" (40m) descends 2nd half lands on steep ice/snow slope with a bit of a ledge near the bottom. Land on snow floor of rift at bottom. Way on ~~right~~ 60m ways, one of them seems more probable - the left one or the right one, depends on which direction you're facing. Nice cave. Sorted trip. Going places ?

Concise Dictionary  
of New vocabulary (OUP version)

Lev-orack - a very tight squeeze

Cave virginity - the quality of never having entered an unexplored cave

"Goats don't come when I'm around" - Keith  
"Are your drawers on the floor?" - Fenella



Shaft Bashing

Garin, 19/7

**F90** For location, see P21. Rigged pitch at back right of shakehole (P25; boulder backup, bolt, spike relay, spike relay) down onto snowplug. Looked at ~~ways~~ about 5 possible ways on, but all diked.

**F89** For location, see P21. Crawl into chamber chokes

**F5b** 6m right (true left) of main FS shaft (see shaft bashing guide). Narrow crack leads into cliff face. Bottom chokes (this is where I found the hammer), but top might be hammerable. \*Very good draft\*

**F5c** Between main shaft and F5b. Bolt step across shakehole into small pneumatic tube leading into cliff. Tight but might be passable. Slight draft.

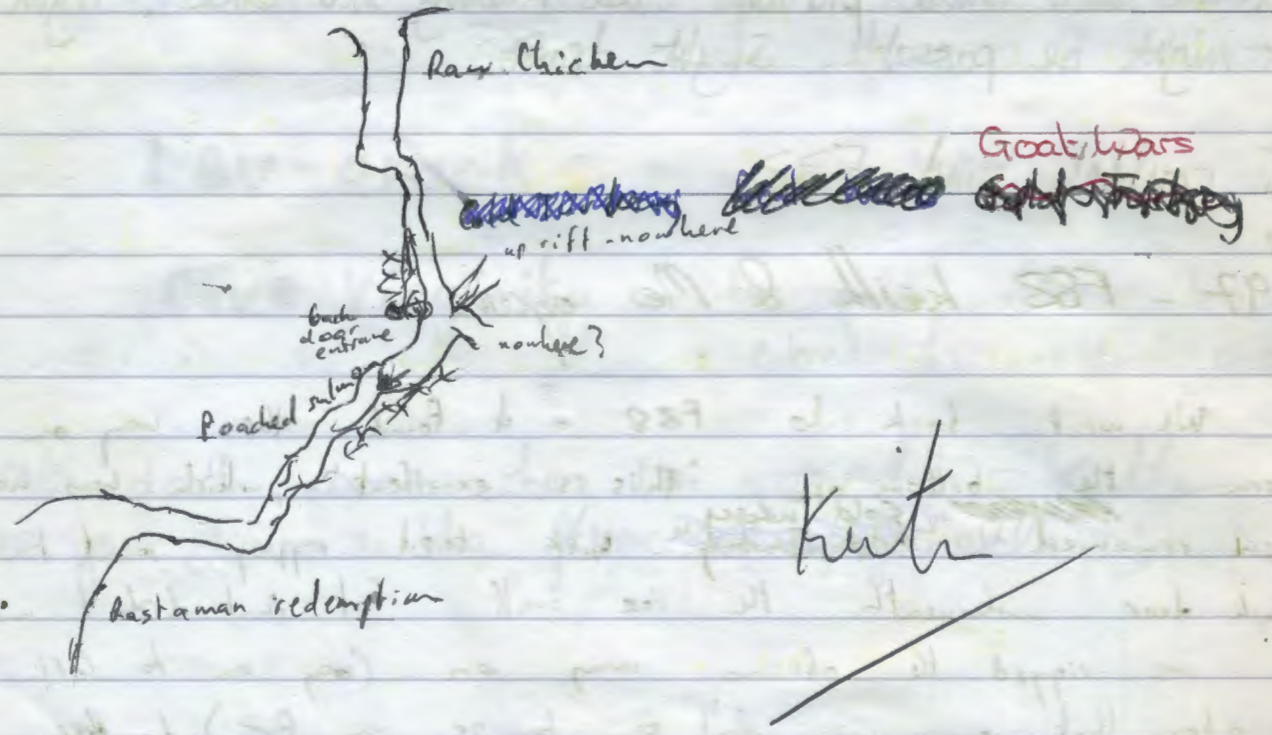
I couldn't find F32.

19/7/97 - F88 Keith & Me again

We went back to F88 & found the way on from the bottom of "This is excellent", which has now been renamed ~~"Gold Turkey"~~ <sup>"Cold Turkey"</sup>. Nick tried rigging round the back door underneath the ice wall but that didn't work so we rigged the obvious way on (way on to left & up above that over ice don't seem to go very far) to the right. This pitch, "Poached Salmon" goes sort of down a bit, across a bit, down a bit more, slope a bit, etc. along a sad of an icy rift. You reached a short walkable bit where the rift <sup>& the snow ends</sup> narrows which leads on to the top of a big, long black space in the rift,



"Rastaman Redemption" Stone throwing gave different results  
~~not least a~~ depending on how far out it was thrown  
 -but at least a 4 second drop, 4 second rattle. Some  
 stones couldn't be heard to hit the floor! The top of  
 that pitch is a most excellent place to ~~stand~~  
 "Rastaman Redemption" seems like a gorgeous pitch.  
 By the way, at the top of the "Raw Chicken" above the  
 deviation there's a nubble sticking out which rubs on  
 the rope unless you come slowly at the deviation  
 and lean out against the wall when passing up.  
 Also, when passing up the 1st half of  
 "Goat Wars" ~~stay~~ stay close in to the ice to avoid  
 a sub point high up above on the opposite wall.  
 "Rastaman Redemption" drafts strongly.





OUCC El Regallón 1997  
expedition Song

A long long time ago  
 I can still remember when we used to go and cave  
 And we'd put on my shiny gear, bolts on the pib without any  
~~We'd put on our helmets, fleeces and gear. Fear,~~  
 With a fudge in our pocket ~~we would~~ ~~wed~~ ~~sure~~  
 But ~~the~~ cold winds made me shiver with every  
 carry I'd deliver,  
 Fog outside in the morning, causing apathy was dawning,  
 I can't remember what I lost, I went down a cave  
 - a long time past.

But I must get to base camp fast, to go shopping  
 at last.

CHORUS:

So bye bye no more caring for me

Drove the red van down to Cangas, <sup>would have</sup> arrived before  
~~like a silly~~ ~~but~~ ~~like~~ ~~a~~ ~~silly~~ ~~but~~ ~~I~~ ~~had~~ ~~forgotten~~ ~~the~~ ~~key~~  
 But like a silly ~~but~~ I had forgotten the key.

Singin' Rio Grande ^ I want thee, Rio Grande ^ I want thee



G  
Well did you go caving in the end, or did you stay and  
Am  
fettle and mend,

Em  
Did you choose to stay in bed?

G D Em Am 7  
Well I can't be arsed to go down there, it'll rip  
my fleece and dirty my hair.

~~I'll just walk back down the hill~~

EM Am 7 D  
I'll just go and sunbathe, over there

Em D  
Well I'm not going down no cave,  
Em D  
only underground when I go to my graves,

C G A7 C  
We both kicked off our wellies, man, our feet were  
bloody smelly

G D Em  
We were ~~in~~ <sup>diehard</sup> cavers who'd kicked the habit, we  
more Am caving and you can show it,

G D Em  
So we hopped ~~to~~ to bare camp like a pair of rabbits,  
to C go shopping at last, G C &

CHORUS.

Jo: "My crabs are really stiff"



20<sup>th</sup> July

(27)

Last day in Top Camp.

Decided to leave 2 days early due to a very sore groin and an uncontrollable urge to go to the seaside. Thanks everyone for a completely knackered but fun few weeks. Never realised Gavin was such a party animal. Hope that Olly will be able to manage without me to carry his gear for him and that Will won't get too wet next time it rains. Thanks to EL Arbol for one of the best expeditions ever. Who needs depths when you can go shopping.

Maximum prussing for greater groin-ache  
Forella

Yet more shafts bashing

Gavin 20/7

**F19** chokes; no way on past the snow

**F18** chokes; no way on past the snow

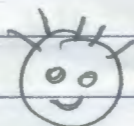
Unnumbered shaft is continuation of F19 rise, a few metres SW: hand-lined climb (~1.0m). Rocks rattle down a slot to the left for a few seconds; I dug at this for a bit, before realising the slot was only 10cm wide.



# Keith's farewell message:

And now the time is near, & I must face the final curtain - unless my passport hasn't arrived & you're stuck with me for another 5 weeks. I've had a good time on the expedition and the wobbly bits just made it more exciting. Thanks to everyone for making it a good laugh & to the committee, in particular El Arbal, for organising it. This is all starting to sound rather clichéd, so I'll end on a quote, as I guess I ought to:

"Blurple grape with sandal smothering ploobles"



Keith

Will = "It was a sort of dynamic stomach"

## 20<sup>th</sup> Ian / Will Survey of F-41

A good reintroduction to SRT for me, after about a year off. Interesting to see the ice formations toward the bottom and learn how to negotiate ice ramps underground. Survey out was quite efficient, especially when Will's tape measure fell off the down the 15m pitch and jammed on a ledge leaving the rest hanging vertically for an ideal



vertical survey leg from the last station.

Out in plenty of time to get Farello's helmet to Gavin to carry down the hill and have a look at F74 for snow. F74 snow plug now too deep for a ladder, could be worth looking at for caving top/instead.

Ian

20th F41 Andy, Jo, Sense of direction (jacked at old snow plug.)

My first caving of expedition had to wait as Jo indulged her passion for scrambling over random rock for no apparent reason whatsoever. Why take 20mins when with no navigational effort at all 2hrs is possible. Highlights included 15mins spent out of view of any green whatsoever, not good if you're supposed to be heading for the green tongue and 3/4 hr spent in the vicinity of the cave. Jo knew it was there somewhere. To be fair though this did give me a chance to take in the wonderfulness of the Central etc. from the ridge. Finally down the came we actually approached efficiency at least until the bottom were we realised we didn't have time to deny even if we wanted and had no rope to explore the lead human. Team Muppet report one tacklebag taken to bottom of cave and that was it, v. pretty though and some excellent sideways prussiking.

- Andy

21 Ian/Will F88 trip.

Lots of time spent checking pointless upstream area of rift at bottom, playing with drill and re-rigging after Nick's bandit trip. Will had fun with footloop failure and the uncertainties of Nick's de-rigging ahead of us. Bottom of rift left for another day.



(30)

## D7 21/7/97 Torca del Fiasco

- a subterranean force in several parts

### Drama's Personae →

Andy as Percy Thrower, gardener extraordinaire  
Nobby as a slacker and also as G. Naylor, placer of bad bolts  
Alison as the gremlin who throws things down pitches  
(see also Oddy)

A smooth start by about 2pm, negotiating the birds with ease, saw the 1st problem arise when the slacker got stuck in the squeeze he had pushed himself the previous week, for half an hour.

Eventually getting through, we all gathered at the head of a very loose pitch, at which point my helmet began to explode, making conversation with Andy impossible whilst Alison rigged.

A bolt a  $\frac{3}{4}$  later, the y-hang was poised to be hung when the gremlin threw the driver down said pitch.

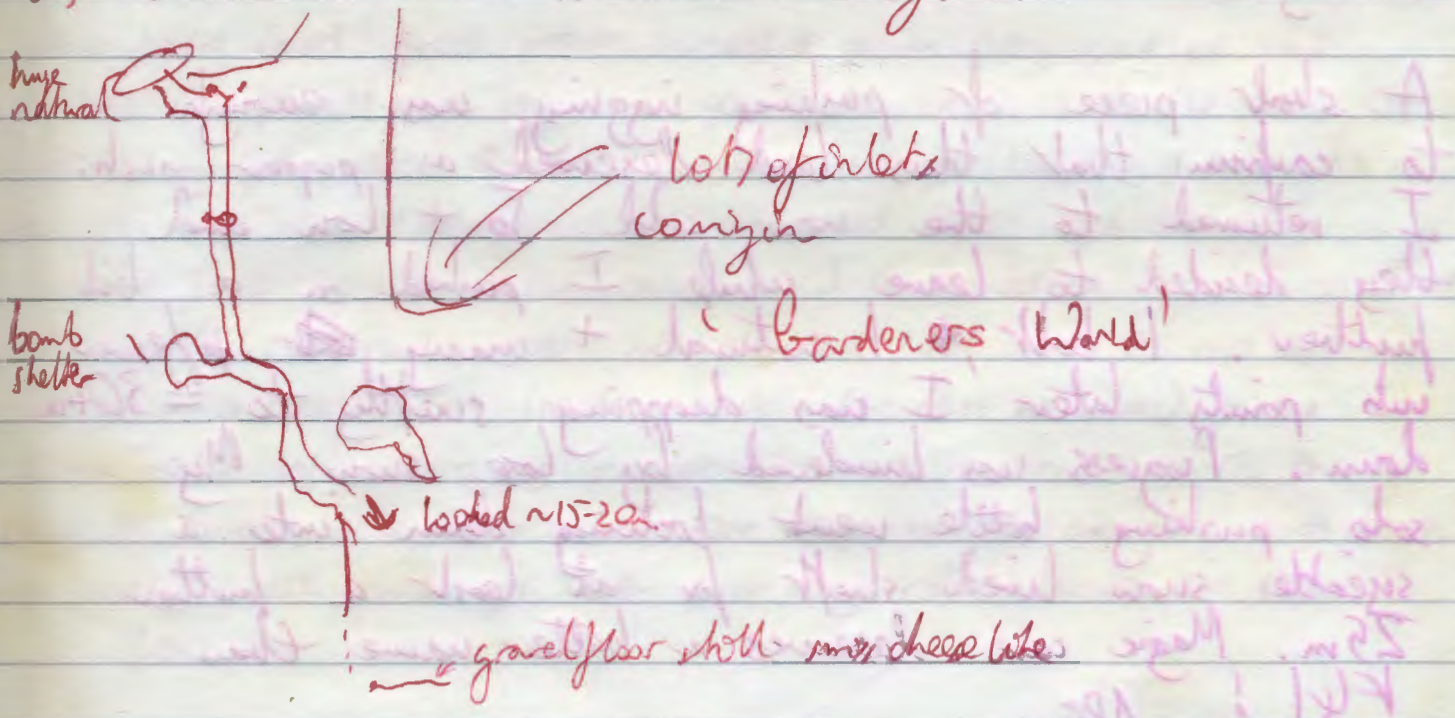
'Thin' I said. 'We could survey out instead'  
Andy looked at the hairline crack running through the first bolt placement, I weighed up the <sup>relative</sup> attractions of suicide and surveying. 'I fancy that' he said.

Andy built himself a nuclear fallout shelter at the bottom whilst Alison finished rigging, and I sang in the dark, my head having exploded once & for all.

Once down all of 10m, we awoke Andy from an hours hibernation, and he proceeded to garden some big holes that 'looked like Swiss Cheese' by lying on them on his stomach. Maybe 30-35m down to the floor. Having decided that it clearly was, we denegged it. 7 hours for 10m. NOT



Is it a bomb?, or a small gas explosion? No of it, El Arbol with his head on fire.



"It's amazing what you can do with a rubber glove" - Ali

'Whose is that jolly jumpbuck you've got in your tacklebag?'

FH1 22/7/97

Found the entrance really quickly and had a lovely trip down to the bottom. Ali & Lou having never been down before were particularly impressed by the snow and the ice formations. (I'd really enjoyed sliding down the ice too). Jo de-rigged to the bottom of the 3rd pitch while Ali and Lou stood on the ice and looked down the not too promising passage through the ice. A slight re-arrangement of rigging and Ali went down and found to his surprise that there was a huge pitch. He came back up to make further re-arrangements to the rigging before going any further. Lou and Jo were by now extremely cold and needed



to start moving out as Ari was putting in a bolt.

The story continues . . .

A short piece of pushing rigging was enough to confirm that this lead deserved a proper push. I returned to the now cold Jo + Lou and they decided to leave while I pushed on a bit further. I bolted, ~~at~~ a natural + many ~~at~~ fewer sub points later I was dropping swiftly to  $\approx 30\text{m}$  down. Progress was hindered by loose snow. My solo pushing bottle went looking down into a sneaky snow lined shaft for at least a further 25m. Magic cave deserves a better name than K&L! ALC

Canalys #1

Rob, Huan, Nobby

The trip started well when we talked Flew & Andy into carrying the rigging gear & 200m rope to the entrance for us. Then they found Keith's missing 70m of rope and gave it to us as a present.

Rigging the cave was inefficient - I put in a few bolts and got to a large ledge. The others stayed on the surface debating whether to warn me about the impending storm. Eventually they did. When I reached the surface the sun was shining so we did some shaft bashing. A bit of a mistake because before we got back to camp a big storm made us very very wet and cold. Brrr..

Rob



21/7/97 The cave in the bowl that Rob showed Lou and had lots of moonmilk in it!

Never having caved abroad before I wanted to go in every cave we saw so when Rob pointed out one that you could crawl in on the wall up I grabbed my little torch. Round the corner it got bigger and there was a bit of drop so I went back and borrowed Huw's questie (the limestone is a bit sharp for shorts here). It seemed to go on so we dumped our camping gear and returned late on. Ali and ~~me~~ I went down a ladder 5m (needs a bolt for next ~~to~~ 6m) at the bottom to the left was a big passage with lots of moonmilk. To the right Ali found another drop about 10m deep so we are going to go back one evening. I still can't get one how many caves there are here Lou.

23/7/97 F41

Ali, Lou, Jo

It goes! Yipee! Ali rigged down for 3 bolts & 2 natural belays. We used up all the rest of the 25m rope originally in there, & 35m of the 40m rope. There is a 50m (at least) unrigged pitch ~~at~~ as yet un-descended. Wide open! We didn't survey because we were v. chilly. Interesting levitating boulders (snow) on the way down. Jo

23/7/97 Canalizo I Gavin, Huw

Gavin carried on from Rob's low point at -44m, putting in two more bolt rebelays and the Spaniards natural abelay, to reach the bottom of Pozo Rio-Rac. -169m and daylight still visible - shit! Typical Picos rift (Gavin's description) led to an awkward climb down ~~at~~ which we'll put a rope on. More rift and two small pitches

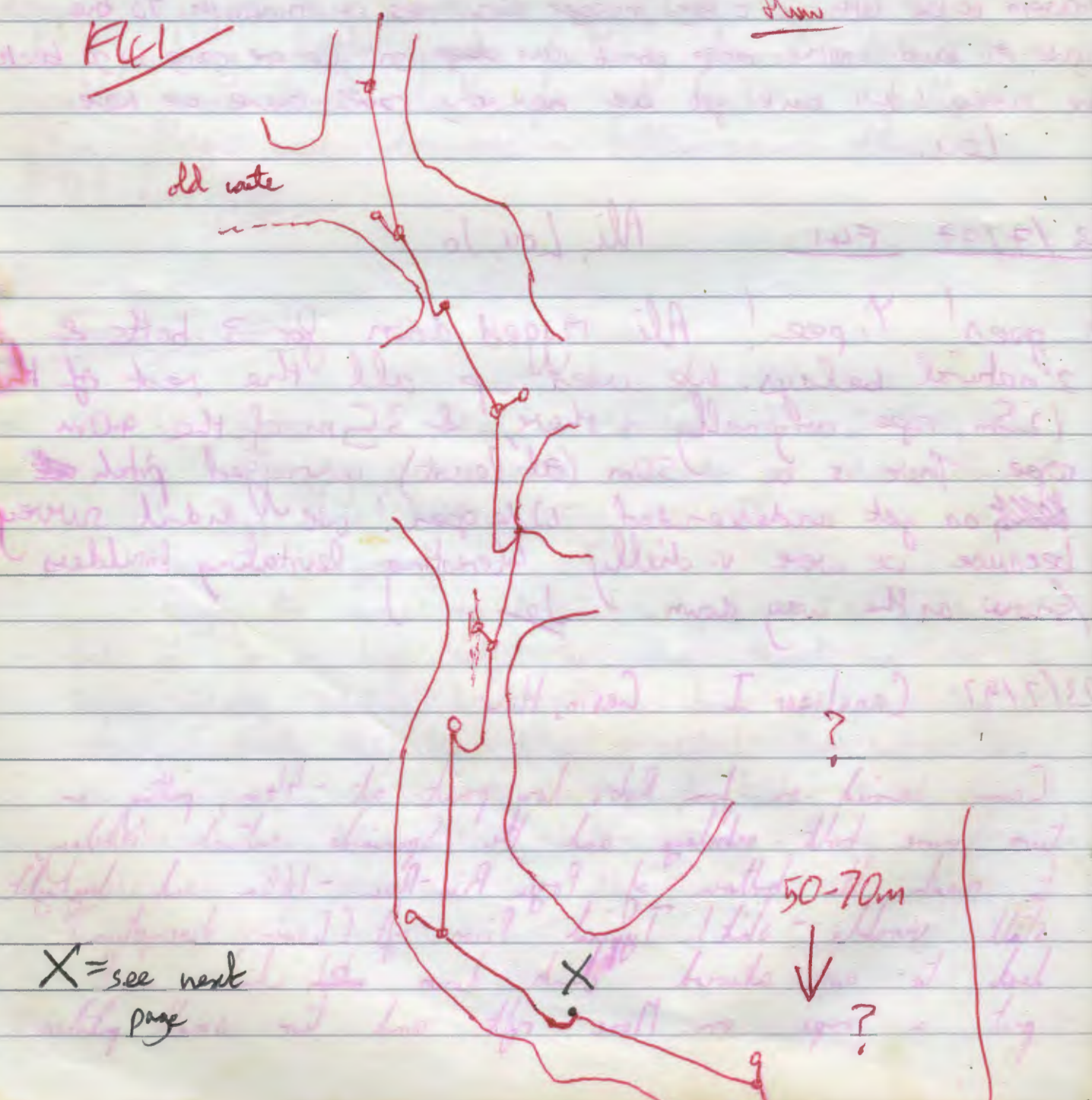


and we were at the 'end'. Five minutes hammering of half a dozen insubstantial flakes and we had a good one. The rift ends at a large area with inlet and phreatic crawl (followed for 50m - continues). Following the stream down a dike leads to more rift with another inlet to a 15m-20m pit into a largish chamber. Some minor re-rigging and a very long prosite finished off an excellent trip.

How

Flc1

old route



X = see next page

50-70m



?



23/7/97 F88 - Reb, Andy, Fleur

Andy and I were trying to make a full a day as possible by going ~~earring~~ caving after carrying up to top camp. My first spanish cave! My first trip on carbide and I didn't blow myself up. We were meant to be surveying some missing legs, but didn't bring any survey gear. Hoped for some in the cave, but (un?)fortunately there wasn't any. Started to derig. Reb spotted the way on just where the cave changes direction and we regained the draft (I was barely freezing). A traverse needs rigging into the rift, so watch this space. Came out in time for fantastic sunset and view down over top camp. Fleur

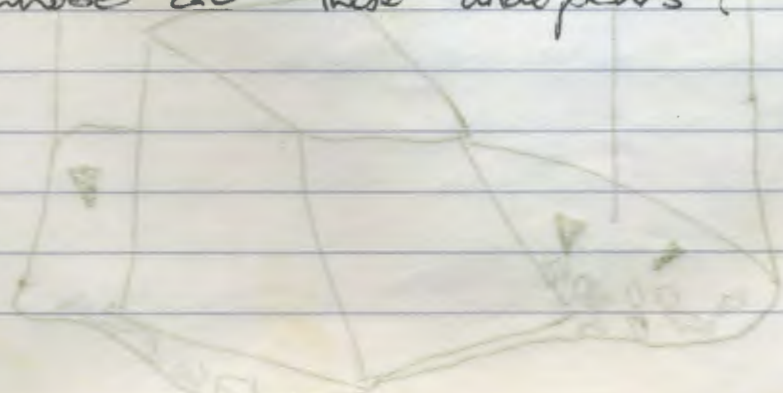
There aren't many caves around here, except underground of course - Nobby

Who said & why:

"You could take a potato"

A long discussion as to 'why we go caving' produces:  
 (We're all seeking glamour really, but our knees are just too muddy' (Jan)

'whose are these underpants?'

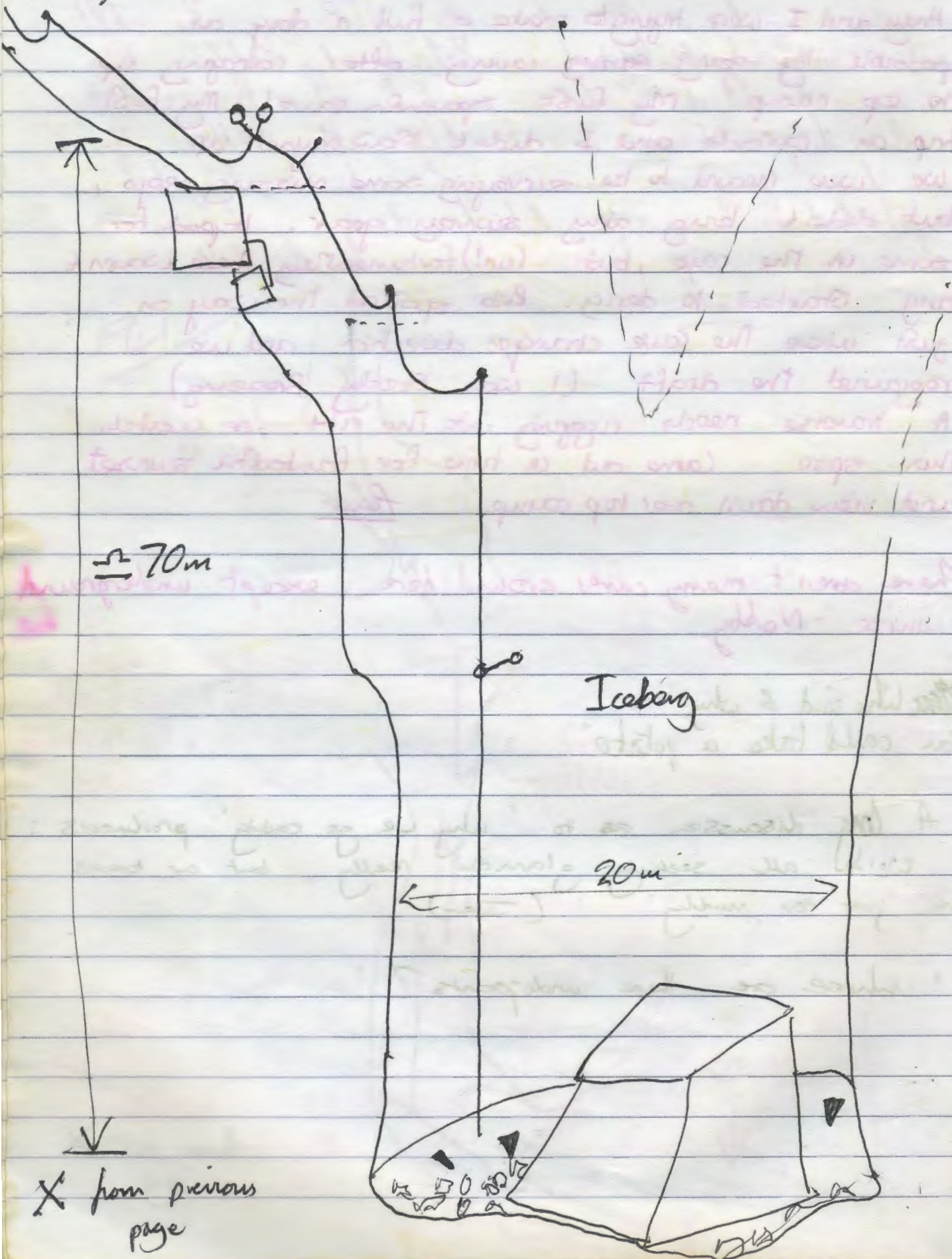




24/7/97

Olly + Ali

Flc!



X from previous page



Another blindingly early 13:30hrs start took us to F41 - Ian carried the 175m of rope up for us - what a star! We were - swiftly hitting at yesterday's limit of exploration - the top of a very awesome looking shaft. A couple of interesting webelays gained some horizontal distance into the shaft and got us out of the water. When the floor finally came into sight it was virtually completely flat with a ~~lot~~ 5m<sup>2</sup> iceberg of snow sitting in the middle. A brief examination was made and NO way or was found - bummer!! 1 1/4 back to surface, camp for 18:30hrs. Bloody excellent trip, Bloody excellent cave!!

Hi

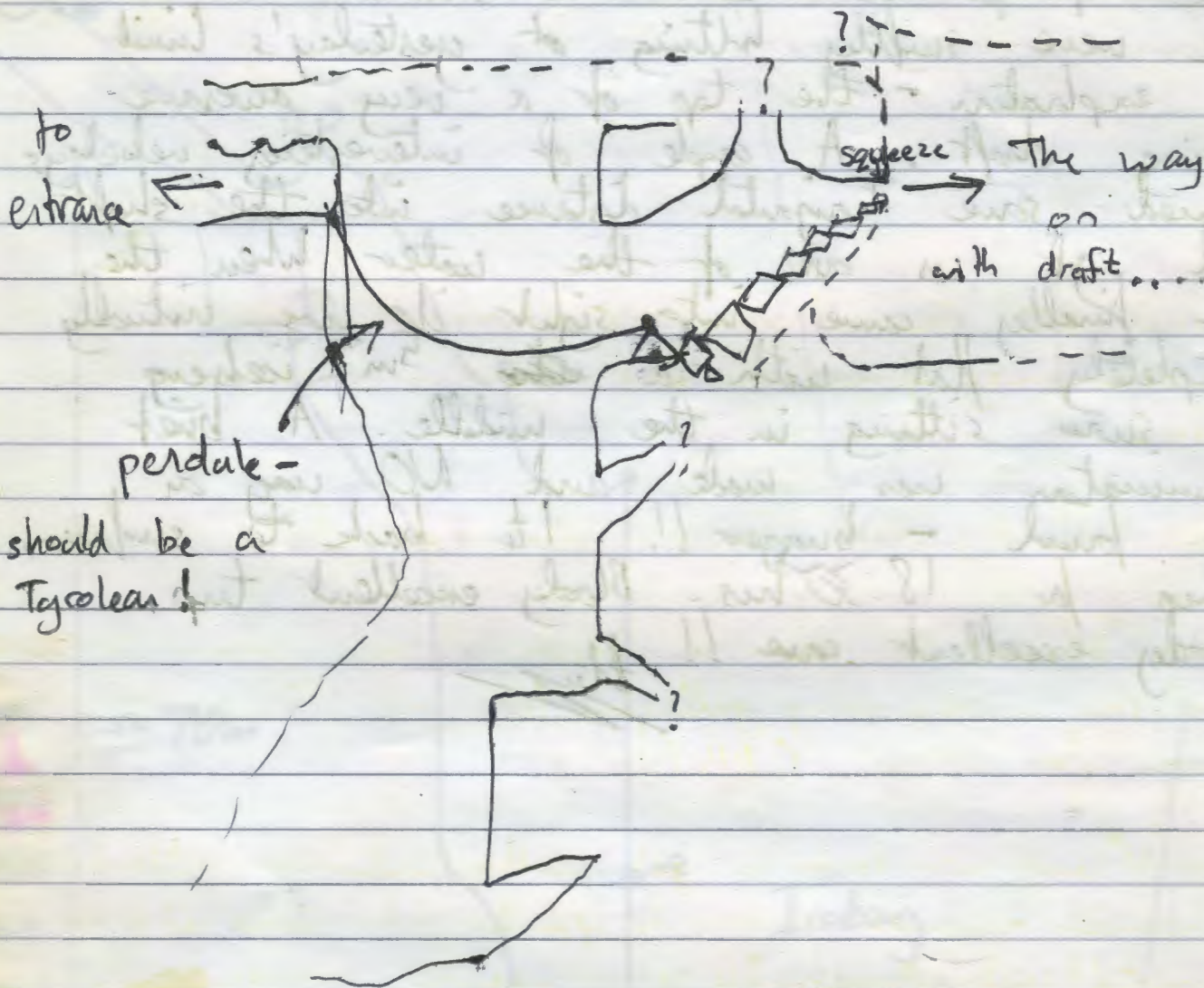


58

F56

Rob & Flew

24/7/97



Rob did his "yo-yo flying" across the dodgy traverse spotted yesterday, then bolted it whilst I derigged the rope from further down the cave. The padlock rigged I absconded down a bit, then had to be pulled across to the other side by Rob. The way on was a chossy boulder slope floor. A climb up went towards black space. A up the boulder slope was a tight hole into a ~5m wide rift and a ~20m pitch.



We'd lost the snow and gained the draft. Needs a return trip with more rope. (I still can't get the hang of prussing up ice slopes). Area

D Area P. 11

24/7

Revisited D12 (needs tagging). Climb over final meander gave some pretty formations but ended in choke after 10 metres.

"D9" revisited. Dug crawl for 6m but no draught.

Due W of "D9" and 30m lower is "shepherds" cave. About 25m north of this is descending gallery in loose rock. Terminates at choke after 20m. (D14?)

N.W. of "D9" and 40m lower is yet another entrance. Climbable meander descends 10-15m to further pitch head of c 10m (undescended) into 'reasonable' sized meander. Needs bolts. (D15?)

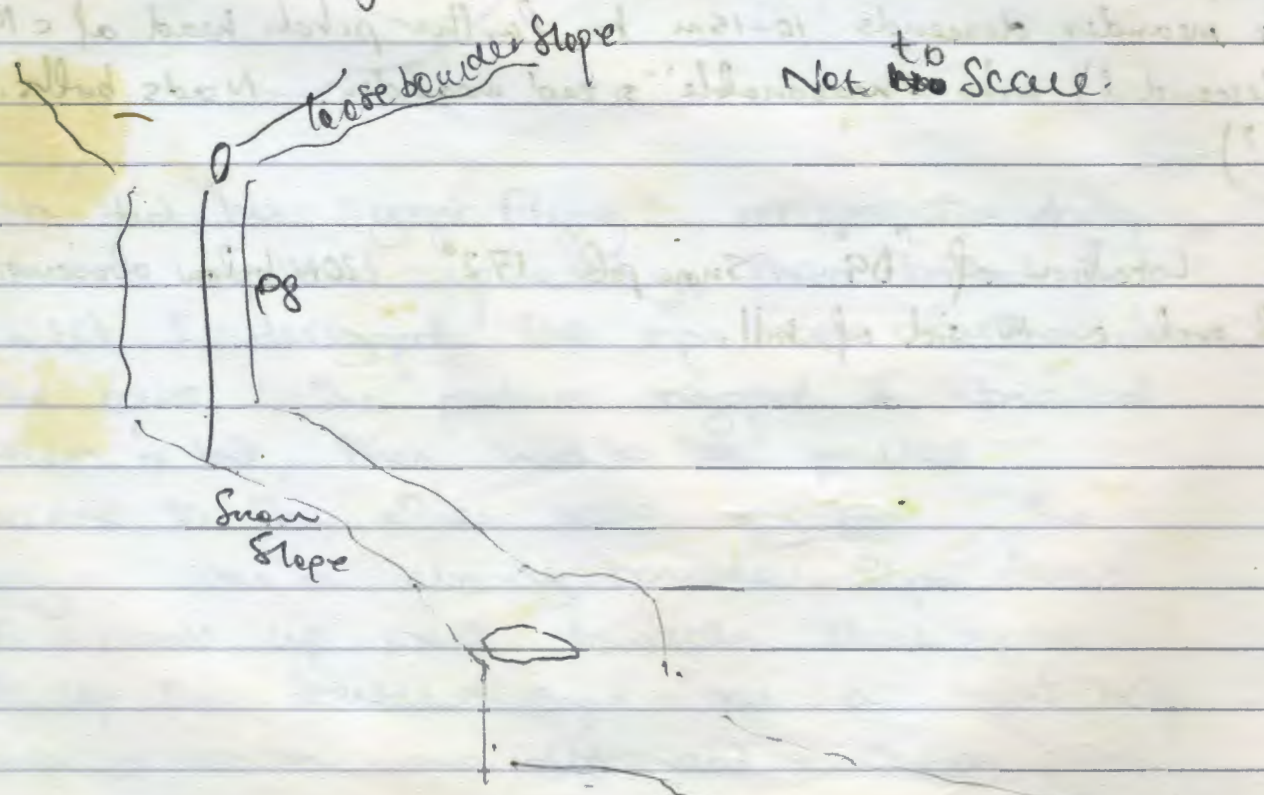
Ps: Location of "D9" Snow pole 172°. 20m below obvious rock over on W side of hill.



24/7/97. Shaftbashing - Area F. Will, Lou + Jo

[F45a] Descended from rock bridge to land on snow plug at -15m. Snow slope heading SE down rift closes down to impenetrable rift after ~5m of descent. Possibility that rift may be wider below snow. No other ways on.

[F46] Me and Lou climbed down entrance to check out claim that "a chisel is needed to make further progress". Decided that we were sufficiently thin/stupid to push it, so changed into carrying gear and rigged pitch for SR1. Descended to snow plug at -8m then followed snow plug down to false boulder floor. Gardened floor to opening rift with man sized hole, then I managed to wedge a large boulder across the widest part, leaving a vertical squeeze between boulder and rift. This dropped onto a snow slope which we descended using combined rope/ladder tactics before abandoning them to a traverse in the meandering rift leading to a ~10m drop back onto the snow, as yet undescended.





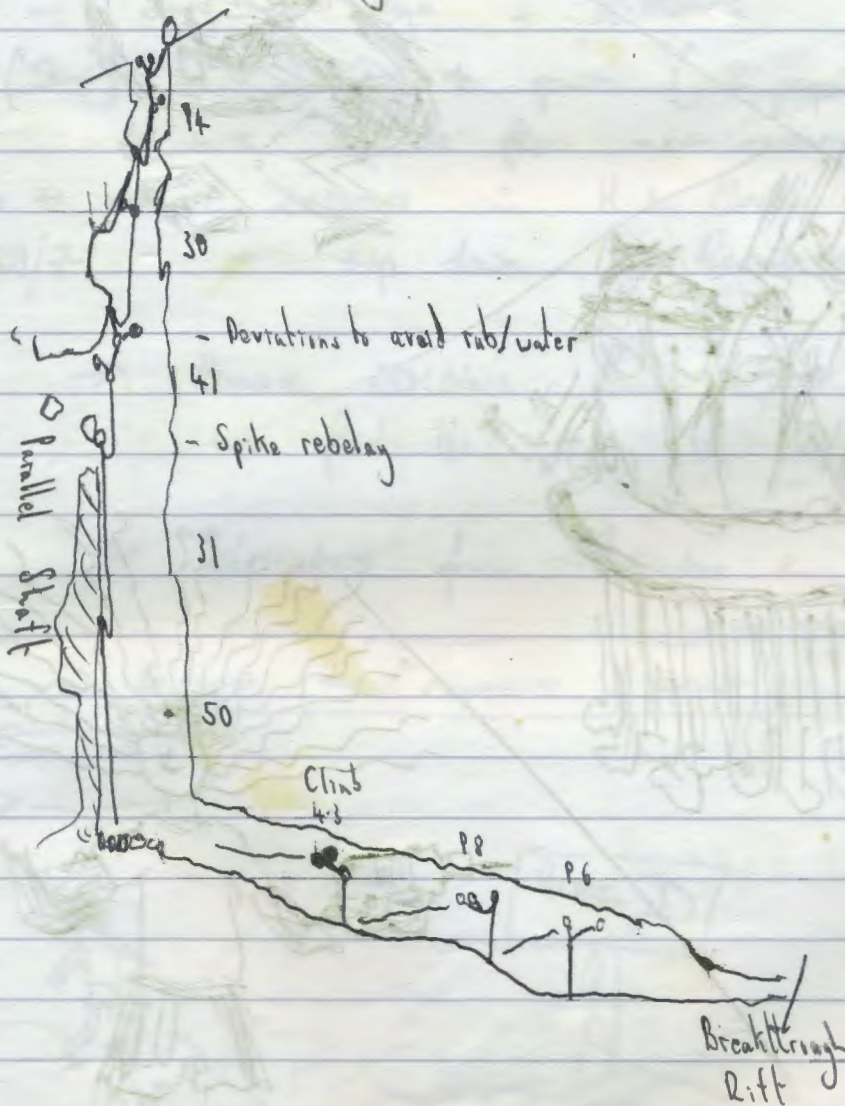
25/7. Best of luck with the rest of the expedition. I hope they all go deep.

See you all at the BCR Conference  
Will.

24/7 Canalizo I Caving Huw

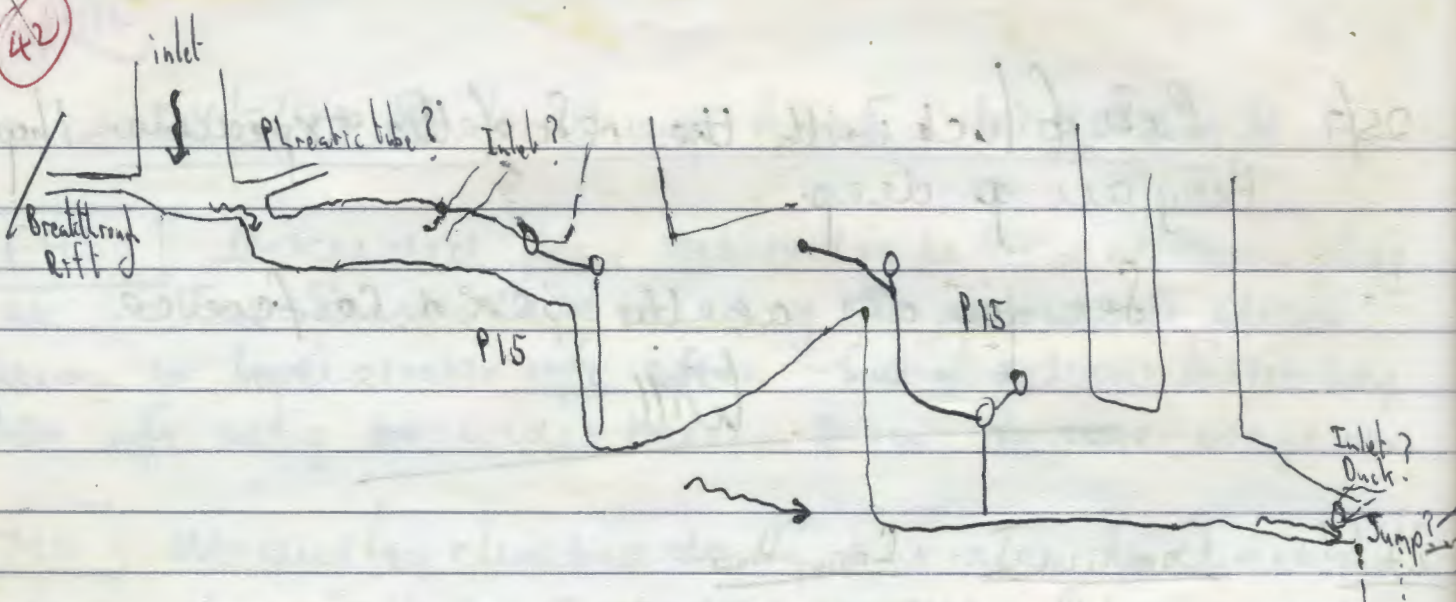
Cave sumped after two small pitches. 20+ m depth gained. Some leads left. Surveyed out to find Spanish chamber and left cave rigged to bottom.

Entrance Shaft Rigging



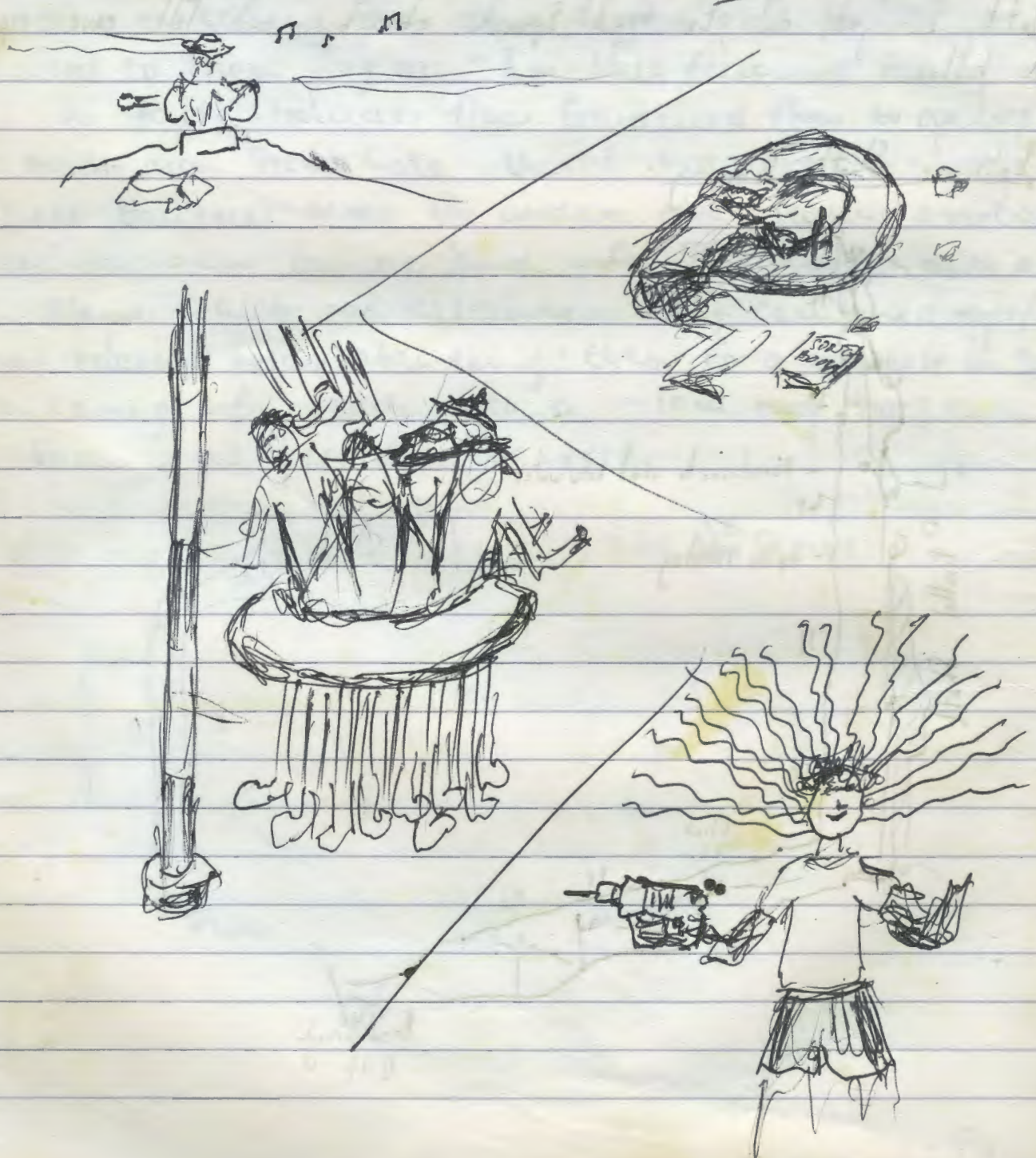


42



Can You Name The Caves....?

Draw





25/7 → try a radio call at 6pm

cos probably 0 people at base by 9

A timetable by Ian and NDM

25/7 - today. We need to do a trace, prob from Canalizas to Lulienbro, preferably via Siskina Verd. (?)  
For this we need detectors / dye, some people; detectors in EL Hoyo la Madre? We also need to push C4 & to do flow measurement

insufficient covers / materials up the hill tomorrow, so:

26/7 - carry up dye & detectors

27/7 (Sun) C4 trip to push (2 people) & to put in detectors & do flow measurements (2 people)

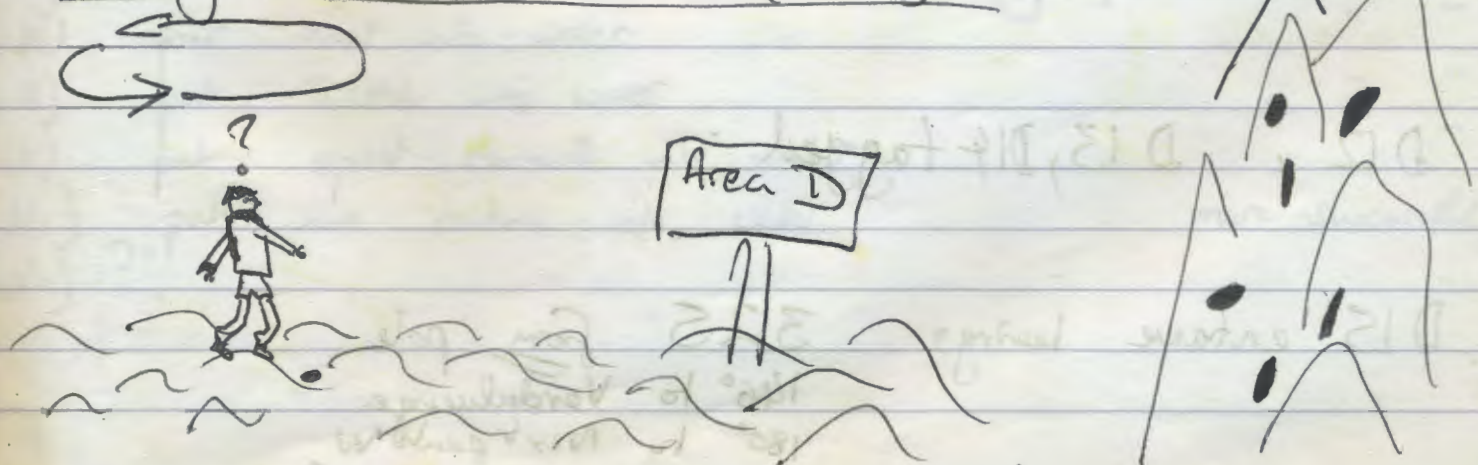
trip to put in detectors in H la Madre

27 or 28/7 - trip down Pozo Canalizada by to put in dye

30/7 → remove detectors from C4 & doing (unless we find the way to 2/7 - )  
(Weds)

later → detectors from Lulienbro & H la Madre

Can you name the covers (cont) ...?





44

25/07/96

Ian Peter

D13

Bearings

225°

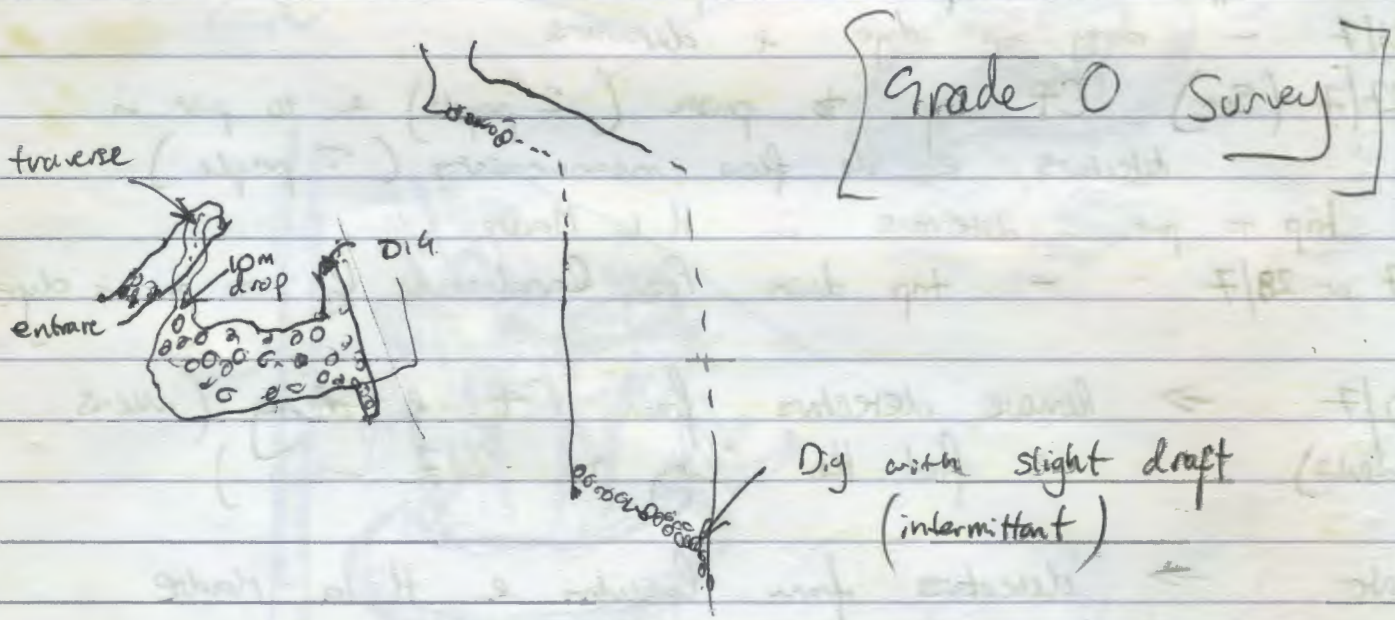
Peria Santo

165°

Verde Luanga

Bashed by Pete yesterday, we went to drop a 10m pitch at the bottom of a Yorkshire style meandering entrance passage. 2 bolts placed and 10m drop to sloping gravel floored canyon passage. Soon choked up. Rattle for a few seconds and slight draft (intermittant).

Pete went for a few hours more about the D area. D15 interesting



D12, D13, D14 tagged.

D15 entrance bearings

325

from pole

146° to Verdaluenga

180° to next peak W.

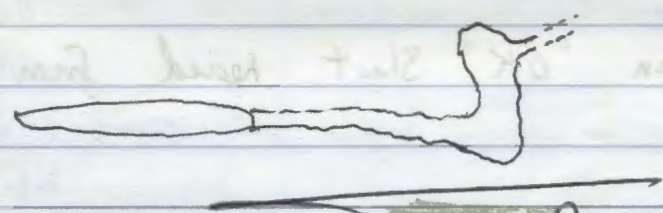
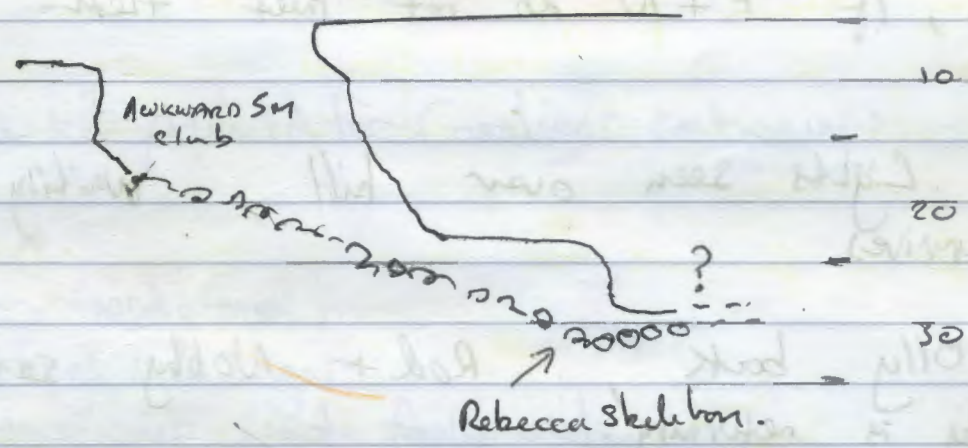


Postscript

P.14

Walked all round lower / western D area. Zilch. Bedding cave on ridge near DIS is possible thro' trip for 30-40m. Near lower entrance is short climb down to draughting chock

DIS is as follows. Obvious fissure enhan.



Today we dug a pond for water for washing up. Ian's attempts to prevent cows drinking it / pooping / crapping in it (very unhygienic) :

- i) put a tarpaulin over pond Doesn't work
- ii) throw rocks at cows, shout, bang pans etc " "
- iii) put salt into water " "
- iv) put Dettol into water " "
- v) put spent carbide into water " "
- vi) put live carbide into water more successful
- vii) D?



25 07 97

11:00 Olly + Andy late from Canalizas

Fwer + Nobby ready to leave with dry funny  
+ food

Ian + Pete going to pack caving gear, ready  
to go in, if F+N do not meet them.

11:05 Lights seen over hill, waiting to  
see who arrives.

11:20 Olly back, Rod + Nobby set out to  
see if Andy is returning!

12:30 Light and an "OK" shout heard from across  
valley.



260797

We need

NO Marge

NO tea

Milk Powder

NO washing up liquid

NO Oil

Some dye detector charcoal

Rescue kit packed for Canaligos containing:

stove

gas (needs more)

tea bags, milk, sugar

pasta, soup (needs Amven meals)

carbide

batteries

4 Sledge bars

chocolate

olives

Shaft Bashing

Gavin C Lou

26/7/97

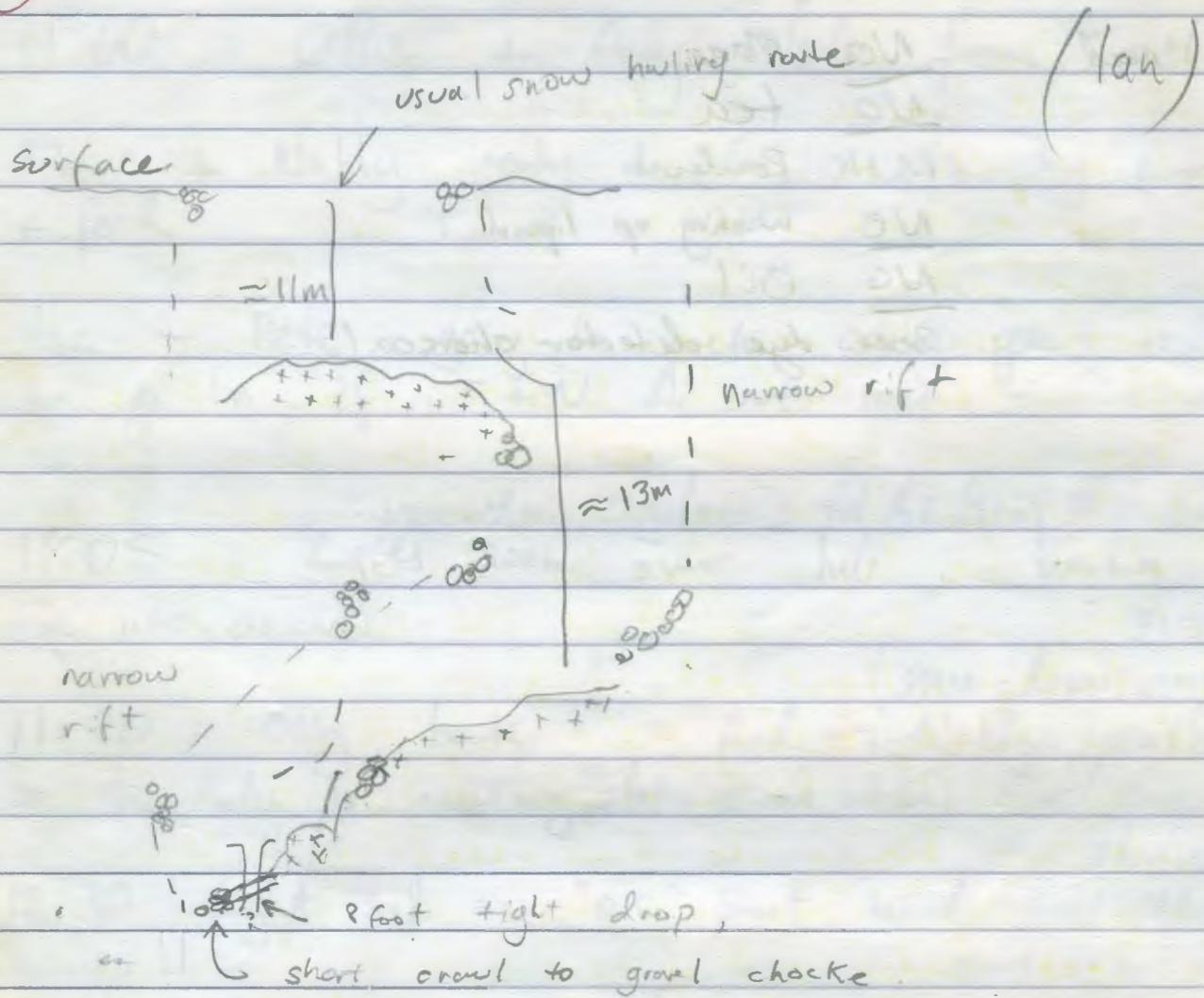
Went to area between Ridge Cave and the western end of Vega Aliseda. Lots of drifting holes, and it's possible that there's a cave running under the valley.

⓪ F91 From West end of Vega Aliseda follow valley to left, uphill, following cairns, for ~150m into area of stakeholes. Cave is in Ⓡ (true ⓪) hand side, overlooking obvious stakehole. Verdelluenga 128°, top of Cabrones 172°, climb out of Vega Aliseda on direct route to Lagos 84°. Cave heads down at 45° for 5m to choke,



260797

(48) Fast F74 look after snow collecting



(shaft boring, continued)

but on left just inside entrance is hole through boulders looking into chamber. Well-aimed rocks rattle for a few seconds. Drafts. Needs a crowbar.

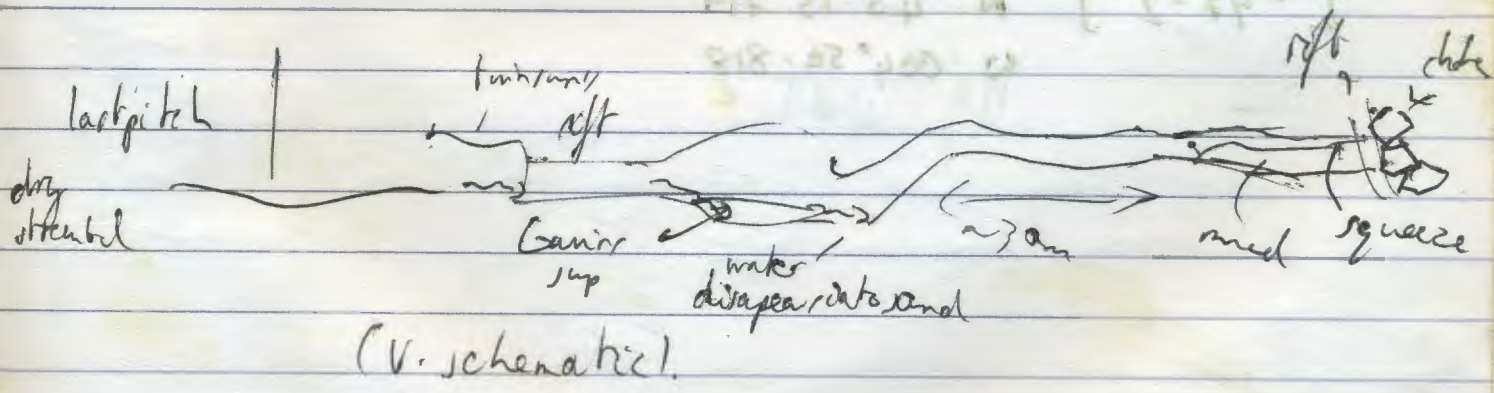
**F92** Further up valley from F91, scramble up to the ④ along fault on bearing  $138^\circ$ , fading at  $40^\circ$  down to NE.  $126^\circ$  to Pico Aliseba. Aftward 10m climb down into rift. A few metres ahead is a drop of maybe 20m. Next shaft up may go with digging

**F93** Overlooking F92, pneumatic tube at base of cliff. Goes 5m, and then gets low. Needs oversight.



25/7 Canalizer 1 - Andy, Olly

Set off trying to actually get an efficient trip, Olly with the world lightest tackle bag (one inflated tyre) and me with a karakore sump diving head band complete with autodestruct diver light. Down with no problem, except an inability to get even a <sup>proper</sup> soft lock on my bobbin on the way down. Found a spanish surry tape in rift, must be ~15y old. Scooted down thru's phreatic tube which intersected rift with stream down to duck no draft. Surveyed back in making full use of the 'mobile' nature of the cave to gain long legs. 26 legs. Later and pushed for time we headed off to find the sump and walked straight through without noticing onto ~40m of phreatic tube ends in muddy bedding plane dug through squeeze to come into small ~5x2m chamber part of cross rift, large draft into cave blowing into choke ahead, right blocked, left goes off ~ person sized. Choke looks stable with large holes well worth a look. Headed out of cave after a quick wash in main sump pools so I could actually see which bit of my SKT kit was which. Left too late and missed call out, at least it was a beautiful night to collapse dehydrated, starving and knackered till Nobby and Uncle came along, thanks. (Phreatic going off to left not checked) - Andy





(50)

26/7 - Western D. Area. - Pit

D16 - Follow Aliseda to W end and turn N into large doline. D16 is large shaft on N end of doline ~ 20m deep undescended

Bearings: Verdaluengen  $141^\circ$ ,  $180^\circ$  to next peak W.

D17 - 50m due W of D16 and on same bedding/fault is 1m x 2m meander descending @  $48^\circ$ . Undescended

Numerous other shafts/descending canyons in this depression @ around F91 all choked.

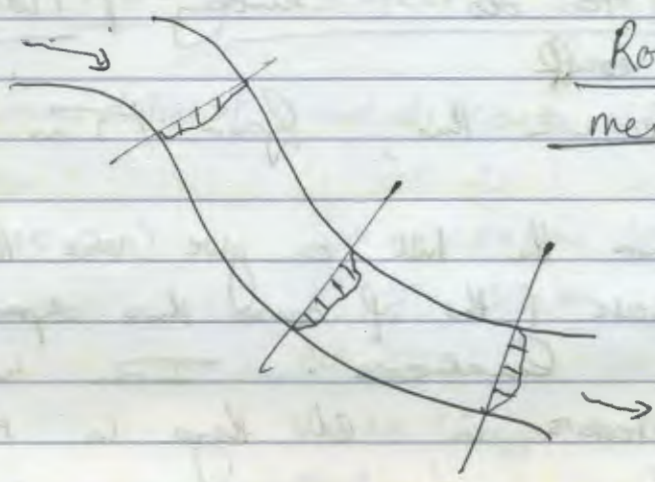
'Maximumi cheese for greater chaos'

Top camp (snow pole) GPS point: 26/7/97 13:22  
["97-1"] N:  $43^\circ 13.699'$   
W:  $004^\circ 56.816'$

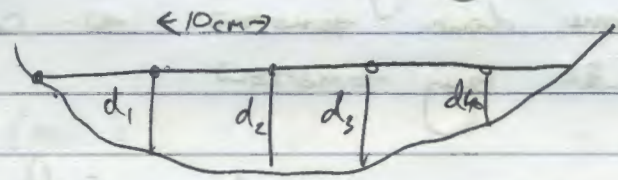
Top camp (snow pole) GPS point: 27/7/97 9:50 AM  
["97-2"] N:  $43^\circ 13.719'$   
W:  $004^\circ 56.818'$



Rough flow measurement method



- 1) Pick a reasonably uniform stretch of passage about 2-5 times as long as it is wide.
- 2) Measure the cross section in 2 or 3 places with survey tape / ruler etc. (nearest 10% fine) 10cm intervals probably ~~measure~~ the most detail needed.



This gives an average cross sectional area to work out back at base

flow

- 3) Measure <sup>flow</sup> velocity with a float and stopwatch (again 10% accuracy is fine).

That's All.



52  
PLEASE READ !!

What we need to do Sunday / Monday  
other than usual stuff  
feel free to interfere with this, Gavin / Tim, whoever

(i) I have gone down the hill to give notice that we will be dyeing this week (tho' of course this depends on what's happened in Canalizos. Ian has gone down to put detectors in El Hoyo La Madre)

(ii) JC (e Flew ?) ~~will~~ go down the hill tonight & bring up carbide asap tomorrow morning if none arrives with Jo & Paul tonight, otherwise there's no casing tomorrow.

(iii) Ben & Rhys, & anyone else who might fancy a carry, could come down tomorrow & carry up the fuel that I will buy tomorrow

(iv) 2 C4 trips tomorrow: Andy (if that's ok), Pete, Huw & one other (Ali?). One to put the 3 detectors into the streamway that we're in the ziplock in the green tent, & to do Tim's flow measurements (see previous page); the other team to push downstream leads - speak to Rob about these.

v) I will bring the dye up tomorrow and if all the above has gone according to plan, put it in Canalizos tomorrow night

Thanks in advance. NJM

ps Gavin I found F32, and F13 is very drafty



27/7 D. Area PJH

Next = next peak west along ridge from V. (Pico Gregorian)

(All caves around doline at W end of Atiseda and slightly N)

① GPS / Bearings

D15 (005) 43° 14' 146 N

4° 57' 321 W

Alt 1738

Verda Luenga 146°

Next peak 180°

Entrance on small hill N of doline. Obvious shaft.

⊗ D15: meander from fork at entrance ramp intersects second meander and drops 5m. Impossible meander then heads back under entrance

② GPS / Bearings

D16 (006)

Verda Luenga 141°

Next peak 178°

Entrance at N end of doline on obvious fault. Obvious shaft

⊗ D16: 15m open shaft. Nesting birds in entrance.

③ GPS / Bearings

D17 (006A) 43. 14. 019 N

4. 57. 342 W

Alt 1773

Verda Luenga 139°

Next peak 177°

50m W of D16.

⊗ D17: Ramp descends for 15m to small chamber with four small outlets. Needs dig/blast. Draughts out.



514

④ GPS/Bearings

D18 (007)

43 13 884 N

4 47 355 W

At 1848

130° → Vardaluenga

172° → Next peak

Follow path W up hill from end of Aliseda. Entrance under cliff which bounds right hand side. About 1/2 way up.

⊗ D18; Ramp descends 5m to chole with draught. Diggable

⑤ GPS/Bearings

D19 (008)

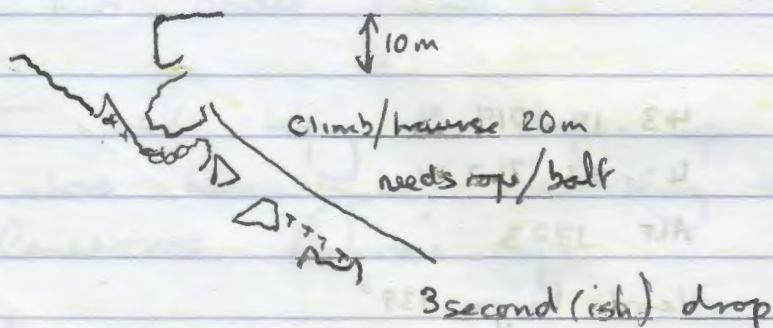
43° 13' 854 N

4. 57. 295 W

Vardaluenga 139°

Next peak 174°

On W side of small hill south of Aliseda at W end. Large open rift with snow plug.



Blows a gale (out). Meander 4m wide 20m x deep.

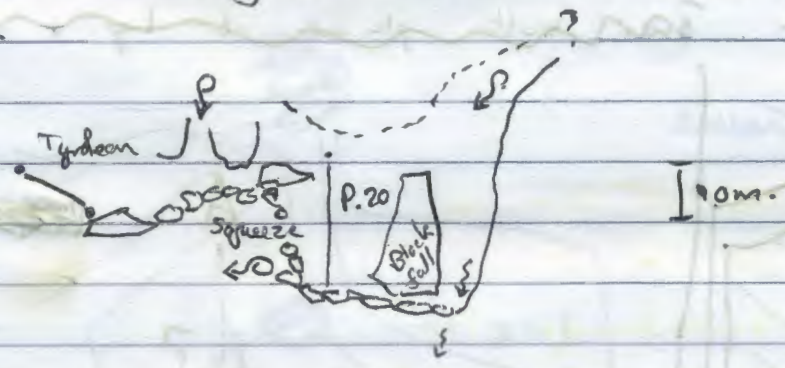


27 July F88 - Huw, Lou, Rod.

Descended cave to complete survey and look for any possible leads near the known end. Survey completed into an enormous over. Ten-twelve metre climb noted with hole above seems to be draughting. Bear left in order to have another look at the climb which requires a couple of bolts.

26/July F88 PH - Fleur

Descended to previous limit. Dropped 20m pit into large room. Good air entering from above but no obvious way out of room.



Dropped rope off top of second pitch and pendulumed across ice plug to eastern end of entrance shaft. All passages inlet to main shaft. No way on.

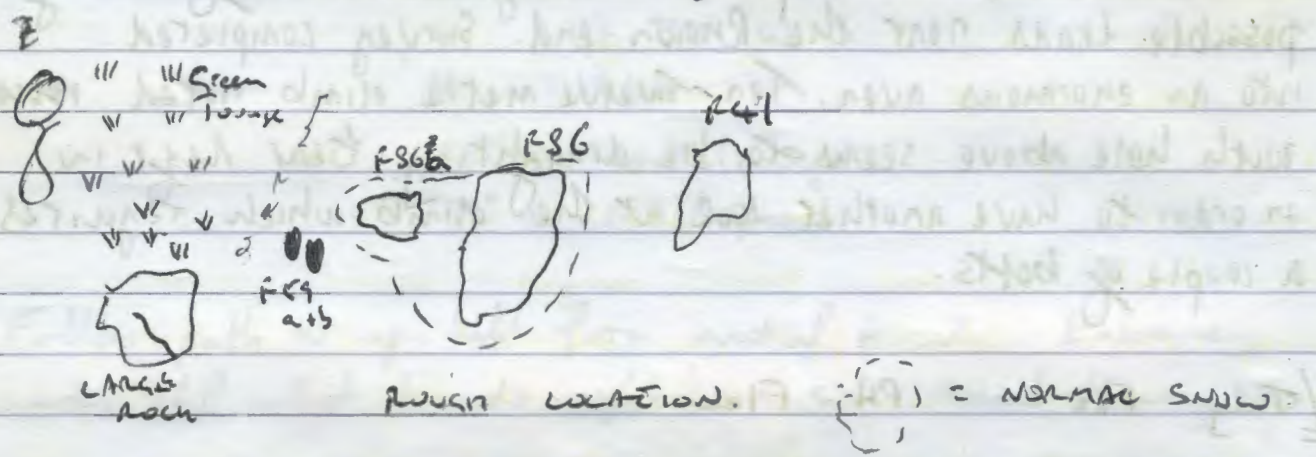
27/July F86/F41 Ali, Fleur, J.C.

Planned to (1) check out F86 (2) try "Old way" down F41, Survey "New Way" in F41 (3) then along all of F41. Achieved (1) and (2). F86 was a large snow-checked shaft between F41 + F41 on the right (true left) on Green Tounge on La Verdelange. It is now 2 checked shafts due to low snow. We first looked at the smaller shaft nearest the Tounge (F86a) which had a short pitch (~10m) down snow in RH corner. This ended in strongly drifting boulders jammed against snow. May be dug, but better to wait for less snow. Shows

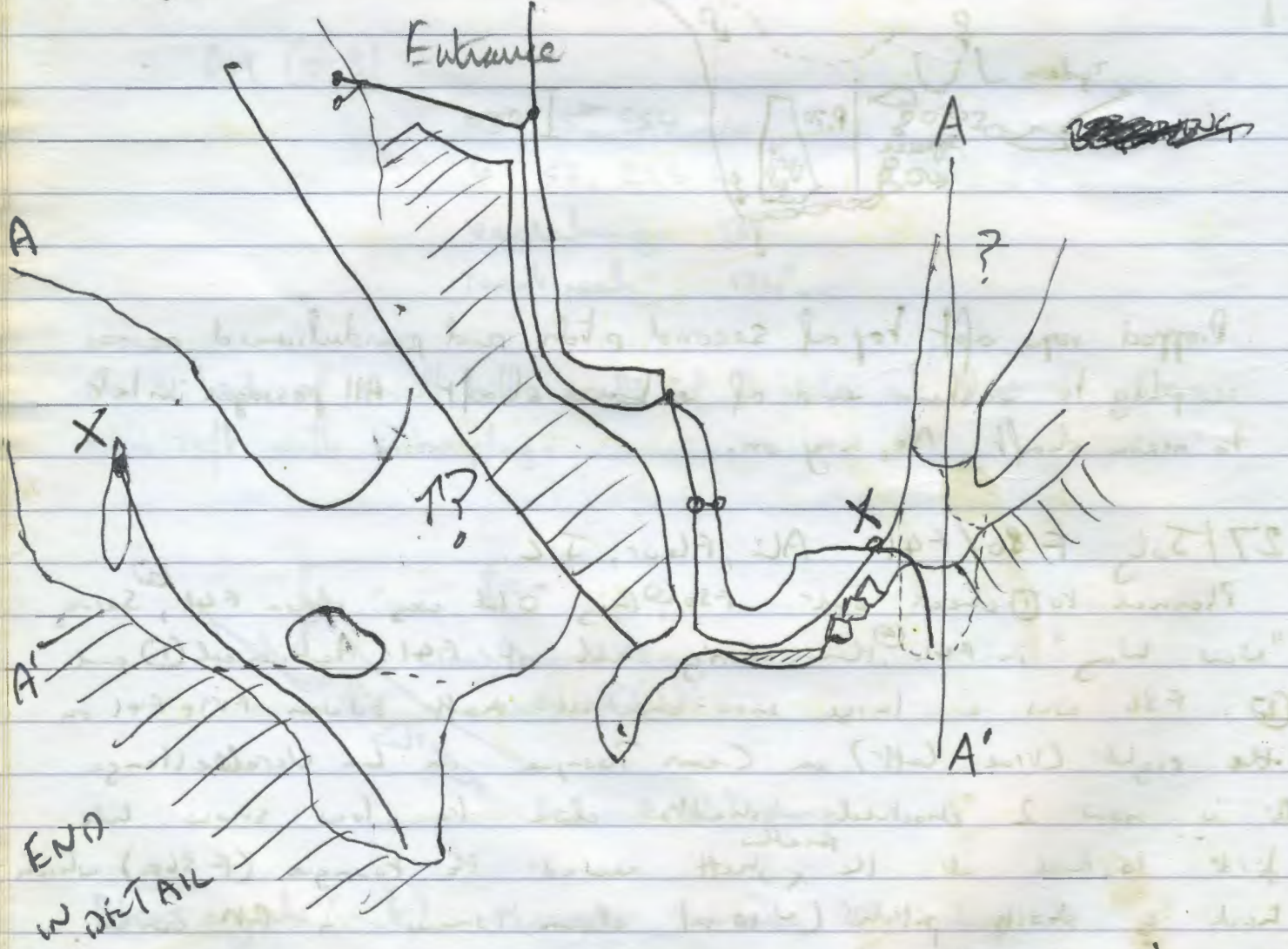


(56)

dropped through gaps (!) - choke fell for about 10m (bottle rubble, mud, rattle rattle). Probably links in with f-86, fuel system.



f-86 is large snow shaft. Choke down is also in RN corner, descends to 45° slope beneath arch. Opens out to give 20m pit in total. ~~Two holes placed at top + one~~

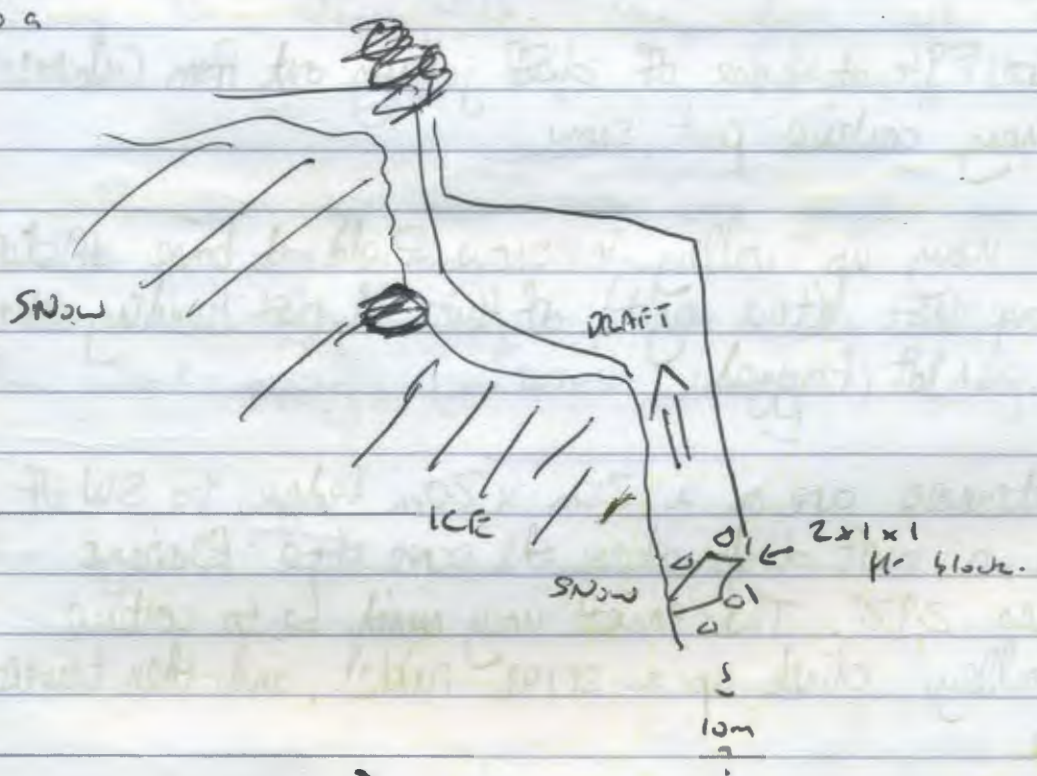




No obvious way down but big wind appears to be coming from above at the end. Could be related by fuel or to chocked shafts further up hill.

Between me finding a going lead in F86, at Ali + Meir bottoming it, we had a trip <sup>new</sup> way down fuel. This got us far as the putting of the ~~old~~ + old way where Ali rigged the ladder for the Philopology (Tim, Alan, Phyo, Ben). Remember that canyon would end in a survey / photo cluster fork, so headed out, making minor repairs to the canoe, including knitting out a rib guide on the first pitch and replacing the ~~S~~ a division in the fork pitch which I broke. Will return tomorrow.

F86a



"So, what does the tractor actually do for you" - Paul.

"I could shove a lucky cockroach up her skirt!" - Tim



(58)  
28/7/97. Snow pole GPS Reading 08.25 GMT.

N  $43^{\circ} 13.725'$   
W  $004^{\circ} 56.786'$

[ " 97-3 " ]

Prospecting

28/7/97

Gavin

**OF94** In middle of scree filled valley running along base of Cabrones towards the pass. Cave is about 100m from col leading to F38. Bearings: left hand peak of Cabrones  $104^{\circ}$ ; right hand peak  $214^{\circ}$ . Basically it's in a fairly nice place, and I'm surprised it's not already full of rocks.  
10m shaft

**OF95** Near F94, at base of cliff jutting out from Cabrones. 10m shaft, may contain prot snow.

**OF96**  $\frac{2}{3}$  of way up valley is snow field at base of cliff. F96 is at top (left (true right) of this). A rift heading into the mountain. Not tagged.

The next 3 entrances are on a 25m x 20m ledge, to SW of F96 snowfield, a short climb above the scree slope. Bearings F2  $120^{\circ}$ , pass  $292^{\circ}$ . The easiest way might be to continue up the main valley, climb up a scree rannel, and then traverse up to the ledge.

**OF97** Near N edge of ledge. several parallel shafts to snow

**OF98** SE corner of ledge, shaft to snow. Skylight above, possibly with parallel shaft.



Ø F99 SW side of ledge. Walk into 8m x 8m ledge.  
Appears to be blind, but needs checking with a light.

F41 → Surveying, J.C. Ollivier  
→ Surveyed from Parking at Ways to about 10m upslope of  
Ledge at the 70, then jacked due to large snow-falls  
down shaft for no good reason apart from melting.  
Removed final section = Carbide made RMS ~ 5-10m  
above 70m pitch on 40° snow slope.

Removed 40m<sup>194</sup> from old way (Beulah)  
Noticed a number of black holes heading away  
from the rigged route at the first and 2nd rebays  
along the New Road. May drop into 70-holes from  
higher up so may help in following the draft.

J.C.

'Who poisoned Don Simon??'

→ It was Fran Dugue, in the billiard room, with  
the lead piping (latest theory) (by Ollivier)

Who said 'You can guard your own bathwater'?



(6)

The low all-purpose adaptable trip write-up

\* (delete as applicable)

July 97

Today I went caving to Caralizo / F88 / F88 / several assorted entrances in area F\*, with Nobby / Alison / Nick Burchard / John Stevens / the Dakai Lama\*

We left before breakfast / after breakfast / when everyone else got up / we didn't go because it was after 11am and therefore not worth it.\*

The trip was efficient / very efficient / quick / we didn't go because... (see above)\* and we were back in time to cook dinner / lunch / ~~at a reasonable time~~ \*

Just after the previous limit of exploration, ~~the~~ the cave died in a sump / blank wall / impenetrable fissure / boulder choke / snow plug.\*

Kevin xxx

Conditions of camping in the Parque Nacional de Cordillera

- i) Do not use any ~~other~~ dyes other than fluorescein
- ii) Collect and dispense of all your rubbish
- iii) Do not paint or mark cave entrances in other permanent fashion
- iv) Do not throw stones at cows
- v) Do not feed live / spent\* (see above) carbide to cows
- vi) Do not burn cows
- vii) Do not use cows horns as belays. (deviations are fine)
- viii) Do not fill the cows' bells with crazy foam.
- ix) Do not dispose of surplus medical supplies by feeding them to cows.



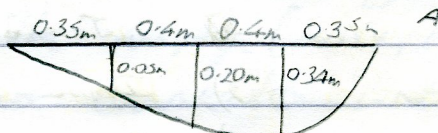
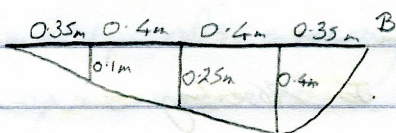
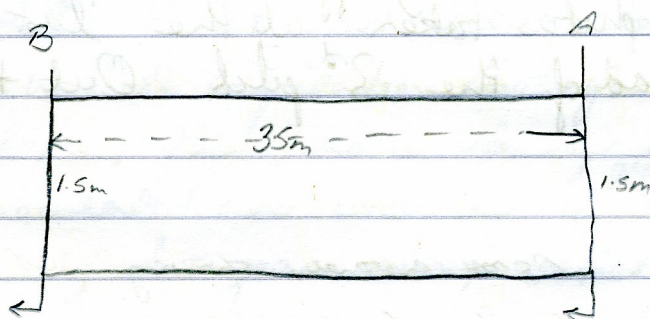
Flow in C4 Streamway (Just before Lake)

Flow = Mean Velocity x Cross Sectional Area

cumecs      m/s      m<sup>2</sup>

or      l/s      dm/s      dm<sup>2</sup>

Mean velocity ≈ 0.6 x max. velocity



$$X_{SB} = \frac{(3.5 \times 0) + (3.5 + 4) \times 1.5 + (4 + 4) \times 2.5 + (4 + 3.5) \times 3.5 + (3.5 \times 0)}{2}$$

$$= \frac{(0 + 7.5 + 20.0 + 30.0 + 0)}{2} = 28.75$$

$$X_{SA} = \frac{(3.5 \times 0) + (3.5 + 4) \times 0.5 + (4 + 4) \times 2.0 + (4 + 3.5) \times 3.4 + (3.5 \times 0)}{2}$$

$$= \frac{(0 + 3.75 + 16.0 + 25.5 + 0)}{2} = 22.63$$

Average Cross Section =  $\frac{(28.75 + 22.63)}{2} = 25.69 \text{ dm}^2$

Mean Velocity =  $0.6 \times 35 \div (80 + 71 + 62 + 63 + 55) / 5$

=  $\frac{3}{5} \times 35 \div 331 = \frac{105}{331} = 0.317 \text{ dm/s}$

Flow =  $25.69 \times 0.317 = 8.144 \text{ l/s}$



I don't have to whack myself to bruise - Alison

Downings like cave diving - Tim

28/7/97 Photo trip down F88 - Jo & Paul

Left at 3:30pm<sup>only</sup> to meet Gavin on his way back from Cabrones. Pleasant & reasonably efficient trip (once we finally got started) with photos taken at the last pitch, the Tyrolean & the head of the 3<sup>rd</sup> pitch. Out to a lovely sunset. Jo

- Photos taken:
- 1) Across entrance, showing setting with flank of Verdugo in background, and
  - 2) Jo on Traverse
  - 3) Down entrance, Jo Abseiling
  - 4) Bottom pitch, Jo starting to Prussia
  - 5) Tyrolean, from ~~bottom~~ ledge at bottom, Jo Abseiling
  - 6) Tyrolean, from above, Jo Abseiling
  - 7) 3<sup>rd</sup> Pitch Lead, (with ice), Jo climbing SP pitch

Tim while eating pasta shell soup :-

"The trouble is I'm hungry"

"I pretended to be a bear because I thought they might be scared of bears" - Lou

- "Nervy by explaining logic to a South Wales Caver" - Ali



Frank to the moon.  
-fulfilling a small dream.

Law, Rob + Tier 28/7/97  
Canaan 1

Rain. No stars. Just a hard darkness surrounding the cool light of the moon. Nearly full, the moon hung directly over our heads, dominating every thought as we rested at the base of the huge shaft with our lamps off, watching rain spattering on the boulder floor, dripping into tiny pools, and the sounds of my own body breathing. Ahead of us the dark that had alternately thwarted and us or filled us with dejection throughout the trip. Now for me, this was a strange and special moment. I had speculated and dreamed of the Canalisos caves for nearly two years now, believing (as I guess you have to) that they might hold the key to the Ch. streamway beyond the map (sorry, law) and perhaps even to a deep cave connection with Kite or 2/7. Now I was here, at the base of the most impressive single shaft I had ever seen, about to proceed to the moon.

In the event, it took just an hour and a quarter to get all three of us out from the bottom, a slow procession of fireflies lighting circles of warm glow at intervals up the shaft. But from the moment we had absented into the seemingly endless depths ten or eleven hours before, the thought of ~~this magnificent~~ <sup>the magnificent</sup> journeying up this magnificent pitch had been on our minds. Beyond the overbreathable  $\frac{1}{2}$ , a "too tight rift that might possibly be hammerable" (well, it does snag your SRT with a bit I suppose) the Canalisos turns into a classic piece 'small stream' cave. Raising rifts, and large, ~~or~~ round



(64)

aven chambers decorated by fluted walls and a gentle stream meandering between sandbars. The turquoise rising sun is particularly pretty (could it ever get ~~warmer~~). The other end of Canabros is at the base of the parallel shaft). I hadn't expected this ~~scene~~ it's not sure really what I had expected, but none had enquired about the beauty of the place as I would have done. In fact it was to get better.

The stream finally sinks in a slot at the base of a u-tube two metres or so in diameter and forced in a shattered area of a finely bedded and ~~folded~~ strangely folded rock strata. This is where the cave surges, and it's easy to see why. Beyond, the passage joins a flood overflow which seems to drain in the terminal boulder choke area, and makes ~~me~~ digging beyond the squeeze in choke all the more edgy. It was cold too, not so much for me, because I had the privilege of wielding the crowbar at the sharp end (if you see what I mean), but for Rob and Lou who were stuck with stacking the rocks that were melting and rattling out of the little aren dig that Gavin and Andy had left us from the previous dig. Cold, because the drought literally roars through the choke at this point. You can hear it. You can even imagine that it's the sound of rushing water, and impending disaster. ~~Rob~~ The dig was progressing surprisingly well. Several large rocks removed (bigger than a bread box anyway), and now it was déjà vu time. I poked my head up into the little aren to look at the wall and roof of loosely poured



~~to~~ room. it is ruddy, cold, and here I was digging in miserable and fantastic boulder chock wondering just how far I could push myself to level boulders and just above my head and shove backwards to avoid the falls. Pick-a-styx area. Dambusters' chock. South Wales. Welcome to Wales. I thought Croeso y Gyrru. No wonder, the expedition was full of South Wales diggers. Another triumph for the theory of psychospelogeogenesis.

I by luck offer another attempt to dislodge the chock ~~with~~ by throwing stones up into it. Lon and I were having a friendly, yes friendly, I guess, conversation about just how long I was intending to carry on digging here. Severe cold and the haunting fear of the prunick out were paying people's nerves. Then several boulders rumbled down the little area, hitting me on the shoulder. The mud must have been gluing things together, slowing down even the rock falls. Nothing ever happens just in here. Keith, we thought. Chock Keith.

Then it was time to do it. Enough room, and a space above. Nasty hanging boulder road, but now or never. I gingerly followed the hanging draught up and over the boulder pile, into a small tube and down again to the bare level of the chock. The draught had now increased considerably, perhaps because we'd dug out the little area. ~~There~~ Finally, through the next combustion and enough time to analyse things. A very narrow rift off to the right, but the draught roaring on up through earthy druggable boulders ahead. Looking good, and a fire nearest to



(6)

Cave

our carbon fire had been more spectacular its done, but perhaps not as promising as Srieder's progress in the  
Chase which is clearly takes the drought. But as  
we had climbed up above the overflow passage (raised  
with two vertical Caride lines on a ladder at  
hip height) and into a massive series of arch  
chambers the feeling of exhilaration was explosive.  
The roof roared, and that mixed feeling of  
excitement and regret was palpable - exultant  
at the throwing first light on this splendid  
place beautifully decorated with brodia shaped  
crystal formations & 'hedgehogs' of decaying stal,  
and no luminous moonlit walks; regret at  
the damage we were inevitably doing to it.  
Should we, shouldn't we. But once you've been there  
for the first time, you can't help it.

We didn't drink enough water for the work. We been  
dehydrated all the subsequent day. We ate  
tuna, ~~excess~~ by the rearing steam, even though  
Lan hates tuna. We traversed the ~~wrong~~ wrong  
way out of over a pitch head and ~~survived~~  
survived (no, don't rely on other people's footprints)  
And we laughed a lot on our diet of fear and  
exhilaration. But the fulfillment of this dream  
was as satisfying as it was unpredicted. The  
conclusion goes, and ~~we~~ ~~per~~ I promised to the moon.  
So thanks, Rob and Lan

Tony



Canalizo I 29.7.97. Gavin, Rhys, JC.

Back to the drafting ding and what a big wind. There's something about 16m pitches which makes you question your SRT ability. In Feb I had been pants and had a diversion pull out on me, so Canalizo looked like a real make or break test. In the event the rigging was fine and easy, and apart from the odd "Where's the rebelay? Where's the rebelay? Shut where's the rebelay?" thoughts it all went very smoothly. The pits a Picos classic and the reasons for the Spaniards coming back is explicable. Excellent riffs, beautiful stream came beyond, but when the lead's a boulder choke doing at the end. We dug a turning chamber then went under the horizontal. The draft is extreme, howling through the choke, but seems to be dissipating, ~~water~~ receded. The end is now in boulders without an obvious wall. Some of the wind seems to be going rightwards which may have more solid walls + roof. Getting out of the choke was easier than getting in. Some psychology involved. Kane

We also had a look at the "Popcorn / Broccoli" boulder found yesterday which was pretty nice and resulted in the temptation to snag some more formations. Rigged a ding line on the wing, which should give a bit of a lift though the wind's least snaggy line. Made the photo trip in the Spanish Riffs. The

The balance pitch was not so bad Gavin was most of the way out by the time Rhys and we got to the bottom and it took the two of us about 15 hours of steady progress. More of an odd than a warm but lovely sight and excellent to steadily make your way into daylight. Excellent one. Hope it goes, but via a choke bypass.

JC



C4 ~~the~~ digging will be on FRIDAY - 1/8/97

F88 29/7/97 Alison + Huw

Climbed inlet in end chamber / Area on far side of  
Tunnel. It was only an inlet, which carried on up to light  
with no draft. Dugged cave, abandoning a hanger on  
far side of tunnel.

An argument at camp

"Paul wants someone to help take pictures of the lake  
in C4", said Jo. Paul was still asleep.

"Swamp", said Rob.

"What? No, the lake", said Jo.

"Swamp. It's a swamp", said Rob.

"So much cynicism from one so young", said Lyth.

"The roof takes all the way down to the  
surface of the water, thus", Rob insisted in his  
inevitable Rob-like ~~very~~ logic, "it's a swamp and  
not a lake".

"I think it's a lake", said Ali. "Says so on  
the T-shirt".

"It's no use trying to explain logic to a South  
Wales Digger", ~~the~~ Andy boasted having  
spent the night on the ridge with Nick Burchett.

"Swamp", Rob repeated dispiritedly.

"I think it's a swamp" added Ian to the debate.

"How would you know: you've never been there"  
said Alison.

"Neither have you", said Peter.



~~Nobby started to~~

An argument was developing. ~~Then~~ El Regalon '97  
 looked to Nobby for leadership. "Er, shall we have  
 a vote?" said Nobby helpfully.

TC decided to intercede. "It's both"

"What?" said everyone simultaneously.

"It's a both a sump and a lake. A sump at  
 one end, a lake at the other." ~~TC~~ TC said  
~~through~~ in his disconcertingly mediocre fashion.  
 Silence reigned.

"Great strawberry cheesecake, this" said Tim.

\* And a great peace settled over the camp as  
 the first gerbils ~~we~~ became visible attempting  
 atmospheric re-entry.

~~TC~~

\* I did not say this. I said "Most sumps are  
 small and are usually called sump-pools. C4's  
 end is bigger <sup>more of lake than</sup> ~~than~~ a pool, so it should be a  
 sump-lake". Get it right.  
 TC &

Gavin: "Beaches are boring"

(everyone makes mocking noises)

"They are! They're hideously boring!"

"I'll certainly put some stilton in it" - Tim  
 (referring to the washing up water)



"You could make Pete into Keith using rice pudding"

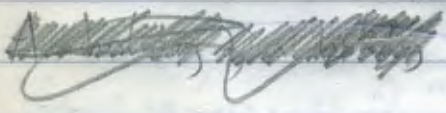
Tim - "Where's the shafts basing guide without moving"

Al: "I'll write that in the book if I could reach it without moving"

Rob - "Tackle bags can be fun"

"El Albol is Ben Lovett's wife"

Lon the Mad (- A Canaligos digging song.) 31.7.97



A boulder choke, a boulder choke  
The first one of the year  
El Albol came into the tent  
The bullet for to hear.

And when the bullet it was done  
He cast his eyes about  
And there he saw little Lon the Mad  
A-lying on the ground

Come down with me little Lon the Mad  
Come down with me tonight  
Come down with me little ~~Lon~~ Lon the Mad  
Come down with me till light

I can't come down, I won't come down  
To care ~~the~~ which you did rig



By the seas on your fingers I can tell  
It is Ben Lovett's dig

Well (what) if it is Ben Lovett's dig  
Ben Lovett is not at home  
For he's gone up the Ario path:  
A-bringing the bimbo's home

Ali Gorman who was standing by,  
Hearing what was said,  
He swore Ben Lovett he would know  
Before the sun had set

And in his hurry to carry the news  
He ran straight up the crag  
And when he left the Ario path  
He wandered in the clag

Little Lovett the mad she lay down  
By the stream that did a-bubble  
And when she looked up Ben Lovett was  
A-brandishing his gerbil

Saying "How do you like my furry suit  
And how do you like my dig?  
How do you like my boulder drake  
Whose draft it is so big!"

"Well I like your furry suit  
And well I like your dig,  
But better I like your boulder drake  
With the draft that is so big!"



"Get down, get down", Ben Lovett cried,  
"Get down as quick as you can;  
It'll never be said in fair South Wales  
I killed a dog in Spain."

Alternative Lyrics (added ~~24~~ on  
President's rant)  
"Go down, ~~do~~ go down" Ben Lovett said  
"Go down as quick as you can"

"Oh I can't get ~~up~~ down, I won't get down,  
I can't get down for my life;  
For you have two long digging tools  
And I but a pocket knife."

"Oh I can't go down, I won't go down"  
"I won't go down for your pole"

"And I shall strike the very first blow  
And strike it like a man,  
And you shall strike the very next blow  
And get through it you can."

It's true I have 2 digging tools  
and I borrowed them from ~~the~~ <sup>my</sup> things,  
But you shall have the  
better of them,  
and I shall have the least

"For you have one long digging  
tool,  
And I but a ~~small~~  
little mouth."

So Ben Lovett struck the very first blow  
And knocked the keystone out  
The pirates heard the cry, too late,  
As boulders fell about.

Then falling up El abal  
And sitting him on his knee  
Said: "Which can do you like the better name,  
(Anahis) or C3?"

Well up and spoke El abal  
Never known to speak so free:  
"I'd rather a dog in the boulder shake  
Than swing in C3."

Ben Lovett he jumped up,  
And loudly he did shout,  
He struck El abal through the head



And pinned him to the wall.

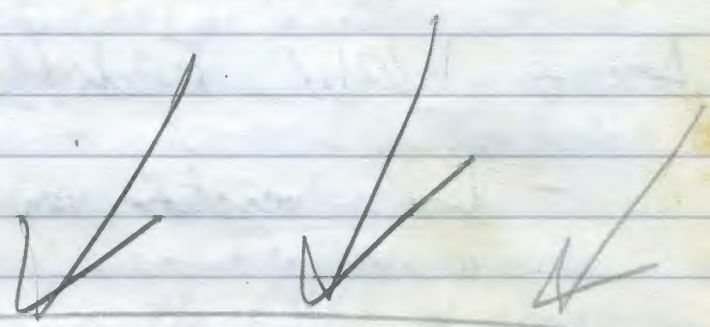
'A pain, a pain,' Ben Lovett cried  
To stack these diggers in

But please mad Lou behind that rock,  
In case the roof falls in!

C4 digg - Friday 1/8/97

- ~~John~~
- NJM
- ~~AW~~
- ~~Ben~~
- ~~Mus~~
- ~~Rob~~
- ~~Andy~~
- Fleur
- Red

- Lou
- (Tom)
- Alisan
- (Rhys)
- ~~Jan~~
- (JC?)



Provisional timetable

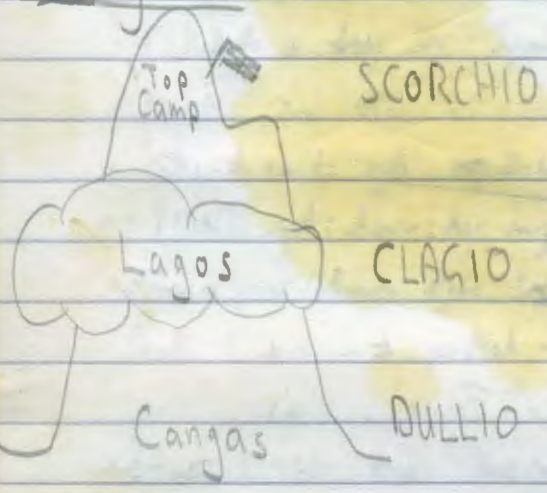
- early team : <sup>+ Rob</sup> Lewis at Sam ish
- followed by : AW + Ben 2-3 hrs later i.e 10am
- followed by : Andy + ~~Red~~ Rod 12pm
- followed by : Mus + Lou 2pm
- followed by : NJM + Fleur 4pm
- followed by : Jan + Alisan 6pm
- reserves : Tim etc



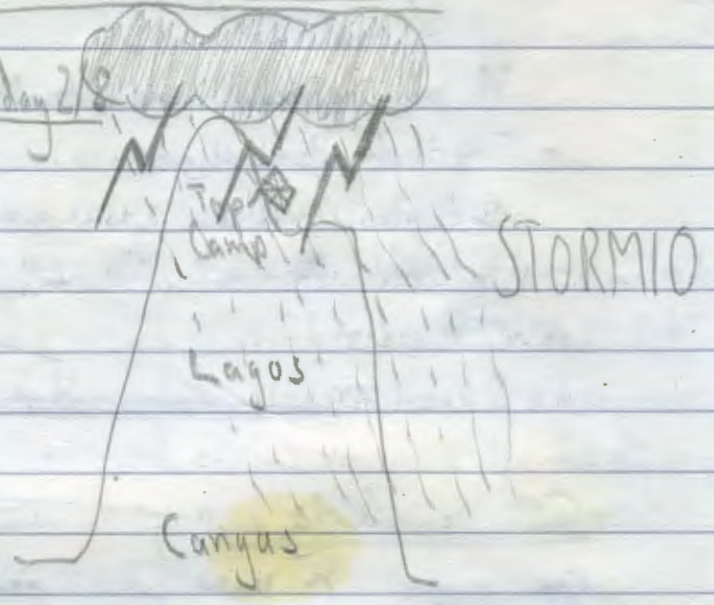
74

The Weather Forecast for The Next 48 Hours

Friday 1/8



Saturday 2/8



Lou - WOW Fuck!!

- Lou's reaction on discovering Tim's age.



Beyond Keith in Canahron 1

1/8/92

"Oh yes, and then ~~to~~ a boulder fell out of the roof and hit Tim on the ear", said Lou as we sat with cups of tea at camp trying desperately to think of ways to encourage people to return to the terminal Choke in Canahron I. In fact its not true that at all. The roof really doesn't fall on out. Not unless you poke it with a crowbar that is. But of course thats exactly what you have to do to raise any program - poke the roof with a crowbar. The cave currently ends in a more open part of the chow with a distinct change of character. Gaps are the muddly, face-down squooshy overalls where the path ~~comes across~~ 30-40m wide holes its way through the chow; or where Lou shuffled backwards and forwards performing extraordinary contortions in the effort of skidding rocks in any available space; where Tim ~~stayed~~ lay for ~~consider~~ what seemed like an eternity staring into a diffuse and apparently ~~per~~ confusing jumble of packed boulders drying to a mass which may offered any prospect at all, and where, as usual, Rob lay and shivered in the biting cold. After perhaps 20min of ~~off~~ digging a space down had opened ahead, and a cleaner, water-washed, more open section appeared ahead. Stal on the roof. Space to turn, to sit, and to practice yogic flying for maximum endurance and the promise of greater depth. we seemed to have progressed below the level of the start of the chow, and it really felt as if this time we were about to break down into



The next phase of Canatoco I.

By the time Ali and Ben arrived at the break through (Andy had declined to enter the chow, and was back at the equipment dump watching for changes in water levels), we had determined that most of the draught was going up again into the chow, although some was pouring down and through. Laughs were ~~exchanged~~ echoed in the chamber as the absurdity of it all struck home. Lon's feet struck shyly into the air as the ~~dry~~ pointed boulders cut for a head-down tube at the chow face and ~~as~~ passed their back to half the country's force of Breanen diggers sitting in a cramped line. Laughs echoed and echoed. Some of these nervous laughs of course - its an intimidating place to enter a Welsh dig - some of squeezes into a water-prone boulder chow beamed at the end of an overflow to a smogging tube (and of course, 225m down). But the company was all - Not since we ever been with such a concentration of humorous people.

8:30pm. One time to go and survey the breach character in the land of Gervilliers. Efficient, but not enough to stave the laughter. Maybe it was the squid. maybe it was watching the survey post rise as he pised upstream.

11:30pm. Time to go out? No way. Done the chipping. Done the surveying. Now time for the photo dip.



Fewer laughs this time, but stalwart helpers made for relative efficiency even here. By 1 am we were heading out.

2:15 am Bottom of the 5<sup>th</sup> pitch. Tim Amoninghy has his camera gear unpacked by the fire. Lon emerges over the pen previous Pitchhead. The photo trip continues, as if in an attempt to break even these stout spirits, and to break all photo-trip records.

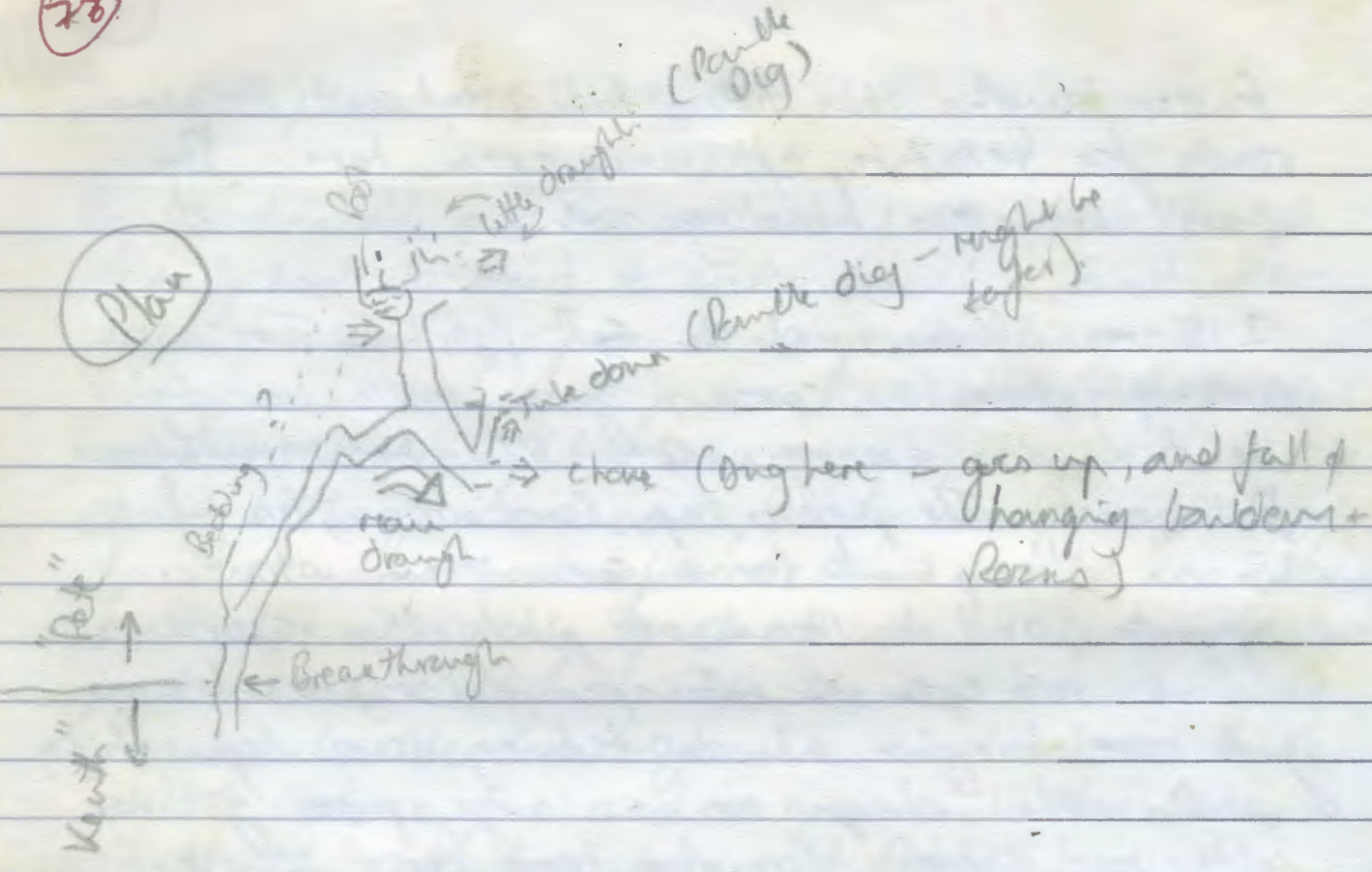
But not even a whisper of complaint - just more laughs at watching Lon squawking under the drapes in a large pool getting colder and colder: laughs from her of course.

Rob found his way out this time, and soon, well by 4 am, the slowest person in the team (me) emerged to day. Or was it stars? And did we get lost on the walk back? Does Rob like things? Did we watch the dawn? Did we eat all the bread? We laughed a lot, that runch is unforgettable - even if I can't remember exactly why ---

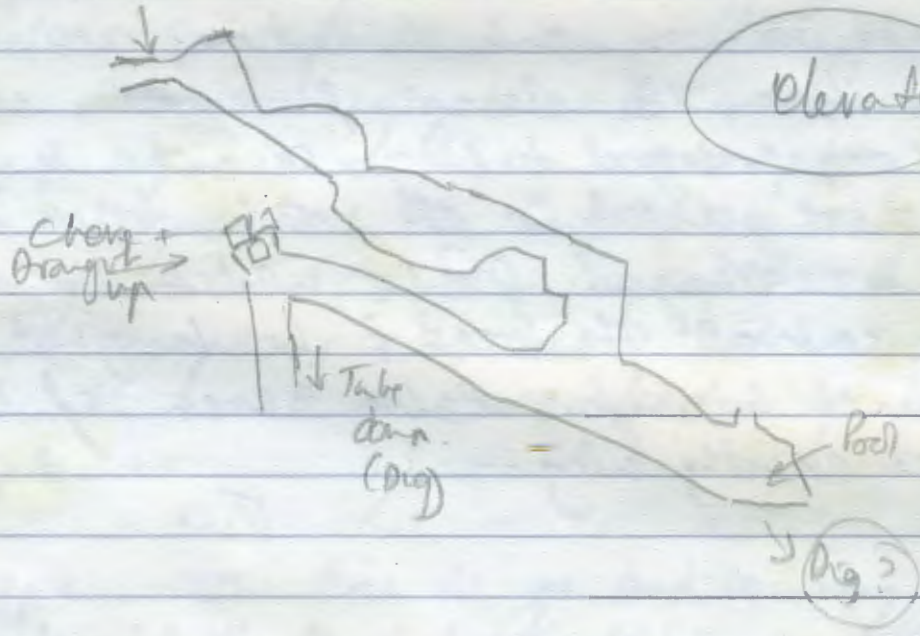
Tim



Plan



Break through



Elevation

Beate prediction -

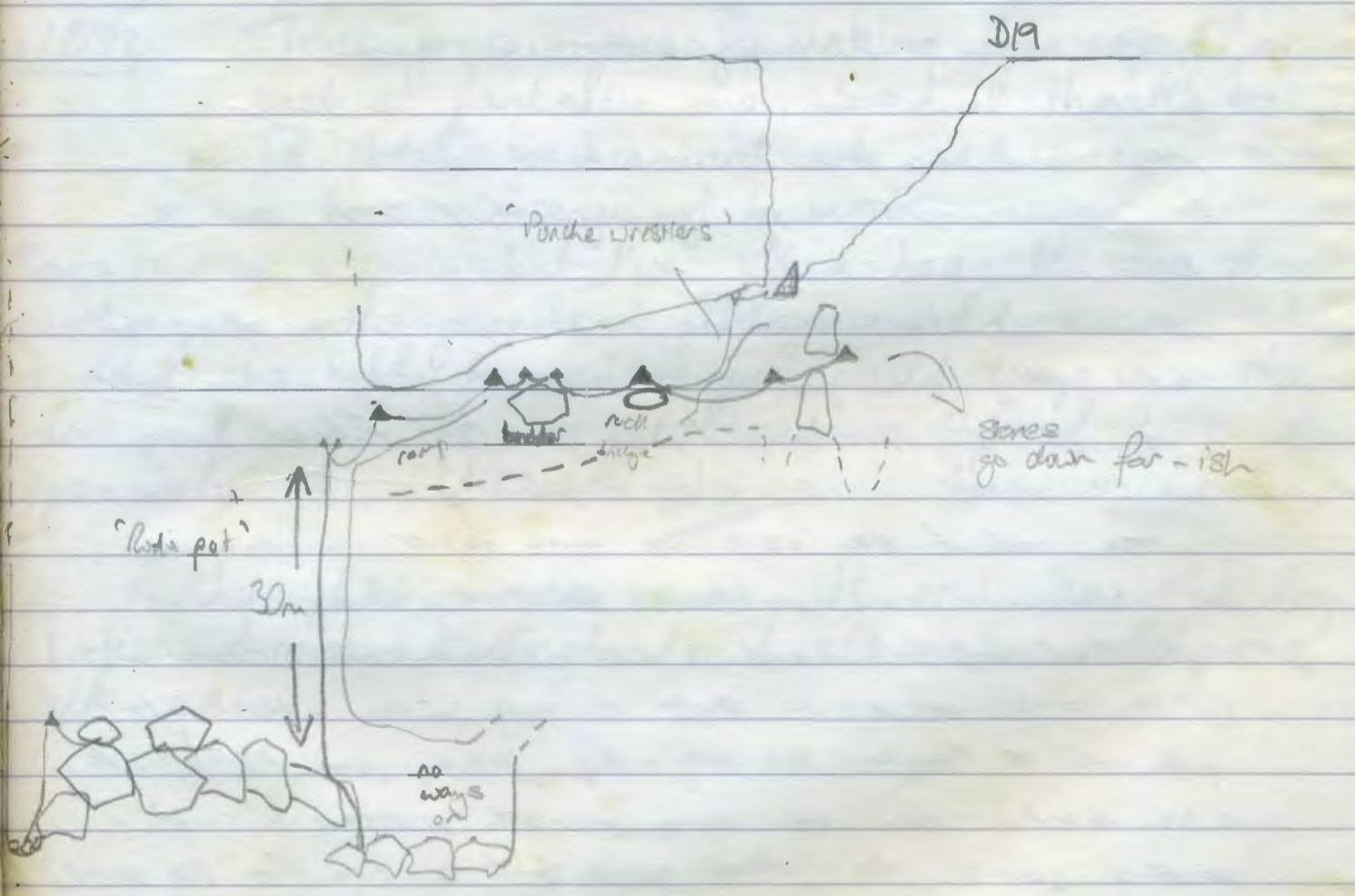
Run back out as quick as possible.



D19 - 'no snow & still absolutely fitting bearing

(Poza del Per) - see area D shaftboring for location

Flew, had & I have been to this cave twice. 1<sup>st</sup> time we followed Pek's route down a ramp to a 30m pit into a large ~~open~~ <sup>large</sup> ~~border~~ <sup>border</sup> ~~chamber~~ <sup>chamber</sup> with possible routes down at either end. Last time we returned with more rope only to find that both routes ~~changed~~ <sup>changed</sup> completely and that a ridiculously hopeful climb was just that. ~~As~~ <sup>On</sup> the way out, however, a traverse above the rift directly below the entrance leads to a point where rocks can be thrown down holes which may slope away from the original route in the opposite direction. Hopes not as high as ~~previously~~ <sup>previously</sup> for this one, but its not dead yet. NDM





(46)

1/08/97

G.P.S Snow pole

N 43° 13' 730"

(NAME)  
97-4

N 043° 13.730'

12.04 GMT

W 004° 56.814'

1885m

30/7/97

Photo trip in Canolines

Paul Mann, Joanne Whisler, Olly Hilton

My second photo trip - with main objectives to photo the entrance shaft, the beginning of the rift, and the sump pool.

Made a traditionally late start, leaving camp at 3:30pm, and getting underground at 5:00pm. The entrance shaft was efficiently photographed as Jo & Olly followed, using whistle signals. Scary Big Piss!

The rest of the cave was much easier in comparison, we stopped for photos at the first rift pitch lead, at the breakthrough rift, and in another random rift. Passed by a number of possible slots of east pitch - thinking to get one or two on the way out. Photographed the 5th rift pitch lead, then the sump approach passage & 'sump'. At this point the flash guns took a turn for the worst, with Steve and I taking turns at not working. So called it a day.



came at steadily - lobed ~~the~~ pressing the entrance - did all out for 1:30 am. Olly walked ahead - me & Ju case the 'scene' way, only getting lost twice - once immediately we left Carlizes, the other shortly after finding ourselves at DF. Home by 3:30.

*Paul*

Helpful photo tip :-

When using a whistle code system to take those big shots - don't drop the whistle down the rift below.

To - "They were aggravated by the sand in my knickers."

1/8/97 Thank you everyone for making this expedition such a fantastic one. Special thanks to Ed Arbol, for his hard work and managing not to lose his sense of humour.

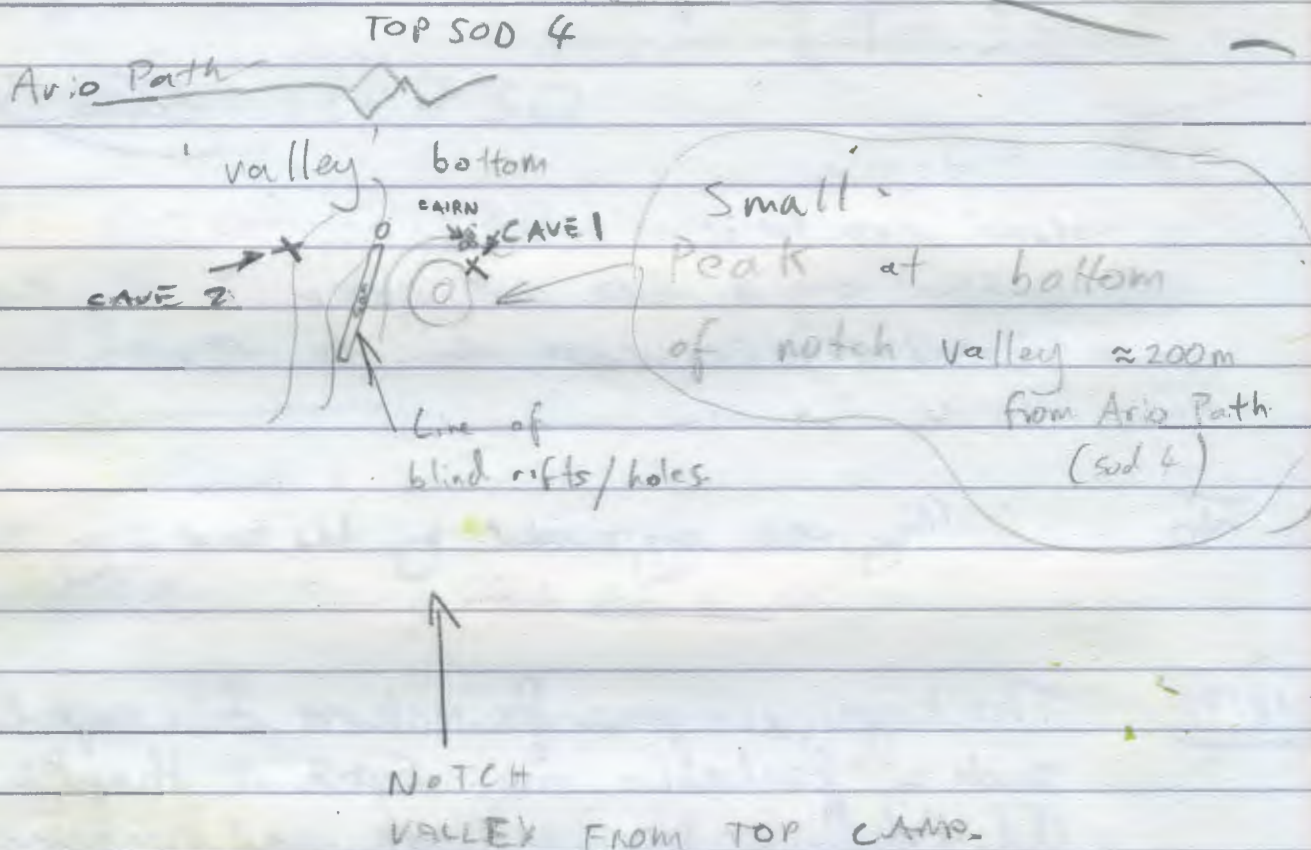
Sorry to be a pain, but I've left a bag with some of my caving gear in the gear tent. Please could someone take it down the hill for me? If you could dump it in the club hut when the van gets back to Oxford, I would appreciate it. Cheers, Jo

PS. Nobby - please make sure JC or I has the log books on return to England: it will make writing the talk easier.



How to find Tim

1/08/77 6pm



C4 Derrigging

Team (in order of appearance): Gann, Ali, Rob, Ben, Rod, Andy, Huw, Lou, Nobby, Fleur, Alison

Superb trip! I went down early, meeting the photographers on their way out. Derrigged from There Be Dragons back to Free and Easy. Ali, Rob and Ben arrived; Rob and Ben took bags back to the Monster while Ali and I continued up. We started getting a bit weighed down by gear, and there's nowhere to stow gear for a while around the Cruciform Pitches, but eventually we got all the gear



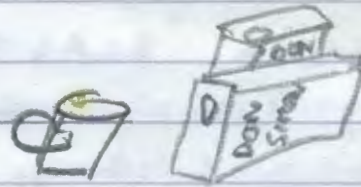
back to the Monitor.

Efficient pulla up the Monitor, helped by the arrival of Rod and Andy. Then everyone headed out with a tacklebag. Finished the detackle within daylight. The perfect end to an excellent expedition.



11:30 pm

where to find Tim



11/2/97

Tim Research visited the SIE Cave "no 1" near Xante, below xiku. It had been renamed 13-8, and, a new discovery, was explored last year. I added nothing to the report in the ~~Exp~~ report, except that the terminal chamber draughts downwards through a choked, but digible, rift.

Xante - hammered through the rift described by the SIE as unpenetrable with 20m drop below, in two places. Convinced myself that there is nothing but a 3inch rift below. no draught

well, at least I ruined the G4 being.....

TIM



(24)

30/7 → 1/8/97 Paul, Jo, JC, Rhys

→ PHOTOTRIP DOWN CU  
 DOWN 1.00 OUT 9-30/1100  
 LAST TRIP BEFORE THE DERIC. LAST CHANCE  
 TO PADDLE IN THE LAKE AND ONLY CHANCE  
 TO GET SOME ACE/CHEEST PHOTOS FOR  
 POSTERITY. SWIFTLY DOWN TO THE MONSTER  
 PAUL DOWN FIRST, HAVING EXPLAINED THE WHISTLE  
 SYSTEM AND SETS UP HIS CAMERA. ME, JO  
 KLEN RHYD COME DOWN FLASHING ON COMMAND,  
 WITH ONLY PAUL DRIPPING HIS WHISTLE DOWN  
 A BIT AND THE INDIFFERENCE OF 3 SHORT  
 AND ONE LONG BLAST CAUSING AFT MITCHUPS.  
 BARE-STOP THEN ON TO THE BOTTOM.  
 RIFTS INTO STREAM A BIT OF A SHOCK,  
 NECESSITATING MID-SQUEEZE DE-HARRISING,  
 THEN STRONGER THE STREAM WAS ONLY REALLY  
 PHOTOGENIC TOWARDS THE END, WITH 5  
 SHOTS AT THE CAMP (NO PEOPLE, JO IN BIKINI,  
 MAN IN BOAT, ANOTHER MAN IN BOAT, AND  
 PEACHES) AND FINALLY A COUPLE OF SHOTS  
 OF THE MEANORS. FINISHED BY MIDNIGHT  
 AND TO MARIE CHLASTE BY 1. JO + PAUL  
 COLLAPSED ON OUT WHILST RHYD<sup>+</sup> DERRICK  
 LADDER. HALLER ALL TACKLE TO TOP OF  
 "DRAGONS" AND LADGES TO LOT OF 9 TACKS.  
 PAIN OUR TO SAND IN RUBY BEGINNING TO  
 SET IN, TOO BUT LAUGHIT JO + PAUL AT  
 MONSTER. THE OTHERS CONTINUED OUT UNAST  
 I SEEMED TO BE GOING BACKWARDS, MARIES  
 ROBS, BENT DELTA AND GENERAL KNACKERS  
 NURS CONTINUED TO BE ON EXIT <sup>BEINGLY</sup> ~~WAS~~ CAVE ON  
 WAS IN, ISIT DULL ON WAY OUT. 2nd PREPIT FOR  
 MR. DERRICK + LUNARST (THAT FOR RHYD.  
 SC



### Things to do on the Verdole, you ridge

- Admire the view
- Skout at top camp
- Watch the culture

### Things not to do:

- Descend Torre de Blanca above a 4m drop wedged only with one foot and <sup>lowering</sup> your ruck sack on your other foot.
- Ascend Punta Gregoriana by the direct route ~~with~~ with the ruck sack so that you end up hanging on with one hand to the only decent hold and your ruck sack

GPI reading of main pole 2/8/

- 1868 in its just gone down, no its 1830 now
- N - 043° 13.754'
- W - 004° 56.789'

Name: 97-5

2/8/97    F13    Hues e Fleur

A dig, a dig, a drafting dig!  
 But very unstable with large amounts of hanging death. Huge draft though, especially at top of a dodgy climb up.  
 So we moved the rift on the surface - climbing the scree and loose rock faces was almost as dangerous as the dig itself. We didn't find a shaft dropping down the other side of the chock, so returned and pulled a few boulders



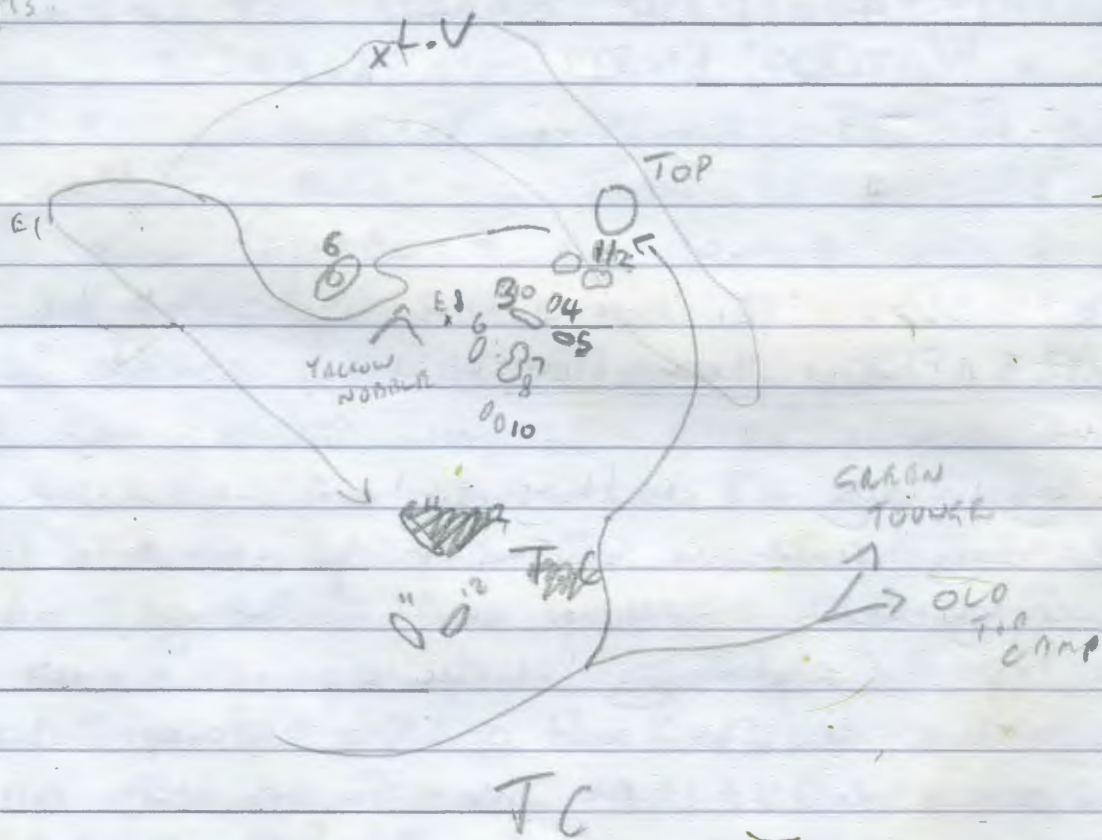
(86)

not anyway. Still no obvious dig site so returned to camp.

Note - don't approach this cave from the scree slope below.

### Shovel bashing in Area E J.C.

Walked up the ridge from Top Camp to La Verling which marks boundary between areas E + F. Passed F66 + F52 then on to base of last outcrop on ridge before LV itself. Found (retro) large snow checked shaft marked over 89 O, which I had been down in 87. Two rocks in separation by rock bridge. Walk another bit may be E9. Downslope <sup>21m</sup> looked at a series of snow/rock filled rifts.





Hole 1/2 (E9?) C.V 132, Pin 5050 Once 89 0

- 2-5 3 Holes in Riffle 2m downslope of Hole 1/2
- 3 10m deep rift 2 wgs in the snow ? E 10
- 4 5m To S of 3 Rattle for 3s
- 5 11m To W of 3 in same rift - 2s deep.

6 On far side of same slope from 1/2. Hole between rocks + wall of small depression. Drop down to 3x4m choker with snow + sky lights. NO WAY ON

7-9 Level with yellow/cream rubble 50m down slope of 1/2

7, 8 Two snow chocked holes

9 Riffle 3m W of 7/8 5m deep with window very down.

10 Boulder rubble with snow etc left on end of 7/8 rift

NB. 7-9 are about 20m west of E8 at 30m West of Nibble.

Then walked <sup>E</sup> across grassy slope to bottom of cliffs on E/C boundary. No obvious holes except snow filled rift with ice over <sup>C/E1</sup> C. If E1 + E2 are what they are claimed to be then they are likely to be on side C. Retreated to Top Camp in direct line from ridge. Crossed line to cliff side level as T.C. Found Holes 9/11 + 12 Towards bottom of line.

11 Snow filled rift (10m deep) same position towards T.C

12 X rift with 11 3s deep

T.C 340, C.V 140. These are about 100m away from T.C at same height.



98

Shafting area F 2/8/97 NJM, Rod

Traversed across face of labrines / Punta h to the obvious 'gaping maw' above F96 snowfield. This proved to be a v exposed traverse for which we ended up having to use a rope.

3 shafts here are either snowplugged or drop down into what may be F98, but we couldn't get down to check Garris caves. What I conceive as F100 (about 100m left of F1 at same height as you look at the face - obvious entrance) is inaccessible w/o proper climbing gear from below or by abseiling from above. I've now had to get to from both above & below, & its very scary.

On the way back checked F32, but ladder too short - needs 20m rope or 2 ladders. Though the bottom doesn't look promising. A small person could squeeze through the visual connection to the larger unmarked entrance next door. NJM

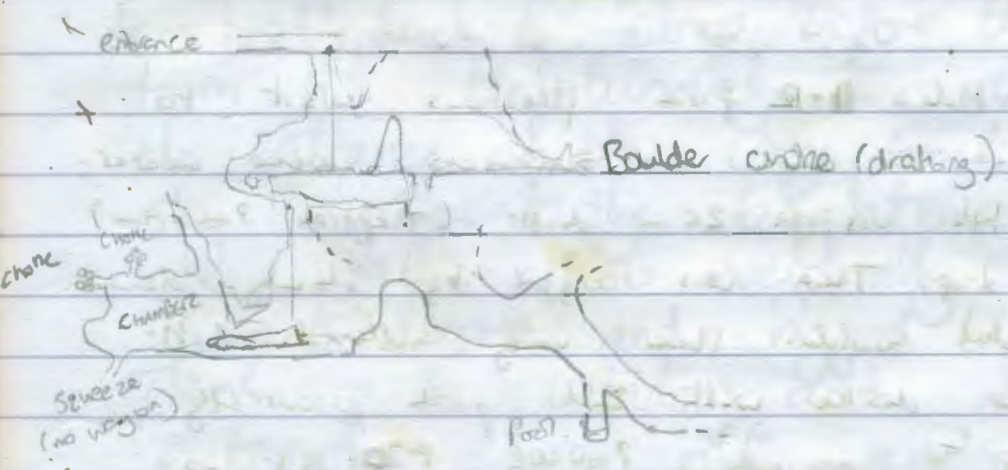
2/8/97 TIM, Ben, Lau D20 cued ~~at~~ Wra Lecce.

A blindingly early start in the late afternoon on the way down the hill left 3 fairly unenthusiastic cavers. Having eventually reached the cave carrying lots of caver enthusiasm returned. A very efficient if slightly longer than expected trip followed. Ben took photos of the prey rats of the cave. We hammered the squeeze at the far chamber which proved entertaining if completely unsuccessful. Having abandoned the rather suicidal climb up to the window in the second pitch a game of incoming ensued. Amongst the rocks that bounced off the wall straight back to us there were some that reached the window and seemed to fall the other side. About the 3<sup>rd</sup> second pitch a crawl through the floor of the main passage led to the same place. Having successfully dug this & it was possible to



climb a few metres down a rift. New passage again! Momentary excitement soon ended as not surprisingly the passage ended after 10-20m in a rift that could only be explored by the cave predicting better. Still, a good haul trip all round and it can be said with no doubt that the moonmilk cave is finished. Nevertheless I won't forget it as it was my first foreign cave and is certainly the prettiest (and longest) cave passage I've ever found.

Low.



A crawl from the entrance leads to a small-rift. Round a few boulders it becomes bigger and there is a way down rigged <sup>with</sup> a ladder from a rock chonked on the left wall (rift continues beyond pitch to a window overlooking the chone breaks). The ladder ends on a false boulder floor. To the left a pretty 7m high passage goes low to a chone. A way through the boulders from the main passage leads to a rift going down that ends becoming too tight. Turning right at the bottom of the 1st pitch a way through the boulders leads to a second ~~pitch~~ pitch down a rift (2 ladders from a boulder). From the chamber at the bottom it is possible to see a window high up in the wall that is the passage received from above. Turning right at the bottom of the 2nd pitch there is a boulder filled chamber with no way on. A squeeze was lowered but there was no way on.



(90)

other routes through the boulders were looked at but there is absolutely no way on.

'Will it work if I put it under my armpit?'

'Well, I'd rather you put it in your mouth...'

Smug "I told you so" shaft-bashing in Area E (13?)  
J.C. + ALi 4/18/97

Could not locate Holes ~~11~~+~~12~~ from previous visit to Area E but did find a couple more entrances even nearer to Top Camp. First hole was a 25m shaft (~ approx 8m x 4m) down to a snow drop. This was rigged by climbing down about 5m on shocked boulders then using adrids. Riff leads off from snow choke with 2nd pitch, currently too full of snow to proceed. Probably F70 but no way seen. (Should be named E13)

2nd hole (E14) was entered first. 10m long rift about 1m wide running roughly SE-NW. About 20m above F71 and 10m off grassy slope. Climb down rift for 8m. Pit at S end is 10m deep but blind, and but almost rocks rattle down N end for ages. Rocks would clunk, clunk, rumble, rumble, RUMBLE! (Last rumble was thunder) for about 10s. Rig rope from adrids at N end, then rebelay below hammered hole about 3m down. 47m rope did not reach the bottom of the shaft. Could see only 10m to top sloping ledge. The rocks went much further. Sounds promising! Could be F72 but should be E14.



Can't give an accurate location as I sighted on La Verdugo  
(153) but when I tried to see Top Camp it had  
disappeared. We approached across the limestone crags, but  
it is easier to cut over round beneath cliffs  
from Top Camp, then up grassy slope towards  
chassy-yellowish rubble in middle of area to Cairn  
marked where Eric is, and also where Politician 17.8.97

4th Aug '97. Rob & Rhys. E12.

Gave up searching for entrance and decided  
to head back to camp before the imminent  
storm hit. Unfortunately I stumbled across  
the entrance on the way back and the  
sky momentarily brightened. So off  
we went. Rob eventually got his  
lamp to work and rigged the first pitch.  
Then up to window and descended  
extremely chassy rift unaided.  
Head of second pitch v. chassy and  
lacking in belays, so we freeclimbed it.  
located boulder blocking rift at head of  
next pitch - Dug other stuff around it  
and chucked stuff off the drop. Managed  
to knock a few corners off the walls and  
the boulder but it is not easily accessible.  
Rob attempted to get a sling around the  
rock so that it could possibly be hauled  
free, however, at this point, his  
head exploded and helmet had to be  
jettisoned. Not an easy manouver  
whilst practically upside down in a rift.



Acetylene filled the cave and we decided to exit. Rob's electric and carbide lights were both burnt to a cinder and it was too dangerous to light mine, so we exited on one electric light, which ~~could~~ had rapidly failing batteries. Got back to camp just before heavy rain but not before I hit myself in the face with the crowbar.

Pitch still rigged. The boulder is still there. Not sure about the draught.

Rhys.

Ben: "Will the 45m rope do the 50m pitch?"

Rhys: "I've got a 2 inch one" Williams.



Dear All,

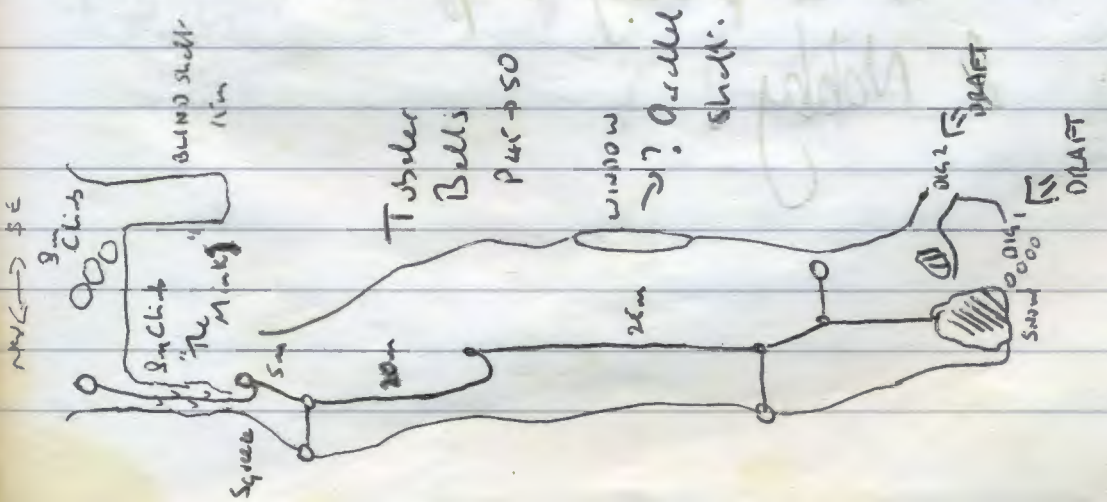
Thanks for a superb expedition and I hope that there is plenty more depth to come. I don't think I'll ever be able to kick a gear in the eye again. See you all at the BCRA/President's' invite.

New

PS - Nobby - my tent, its poles and a water bottle are in the porch of the fore tent. Could you bring them down please. Cheers.

5/4/97 - E14 Ali, Alison, J.C.

Dropped pitch (41-10-?) to choke with small patch of snow. Beautiful shaft "Tubular Bells" due to brittle-precussional effect of clipping away at rock in choke. Thin rift was dug in various places to reveal ~2m high pocket with strong draft and echoes. Needs some more hammering + removal of boulders before more progress. Parallel shaft spotted on way out through thin rift. May be easier way through. Entrance climb is a real buster, vicious with down-ward pointing rock which gets under site ("The Mink?") 80m rope on pitch (climb). 61m down cave. Crumbly entrance





94

5th August '97.

D19.

Wandered across in <sup>mist</sup> ~~raft~~. Rigged ~~from~~ pitch from the end of traverse left at end of last trip. Pitch perhaps 10m then dropped another pitch perhaps 5m to a chossy slope and rigged Y-hang ~~for~~ next ~30m(?) pitch.

Boulders slope down at base of pitch led to big aven/chanber which lead to climb down and <sup>right</sup> straight ahead system which proved no way on in the floor of the aven lead to <sup>right</sup> at lower level. Heading back towards pitch there was a diversion there was a corner. "Someone with balls and a hammer" will pass this. It takes some draught.

This cave is not yet dead!  
Also heading the opposite way ~~at~~ before head of a 5m pitch leads down a scoulder slope to another drop. This needs to be checked to see if it links with today's finds or last trip's or is completely different.

Rhys. & Nobby.



shake hole

Crap drawing

95

rift

"old route"

chass.

possible other ways!

continues

fits etc

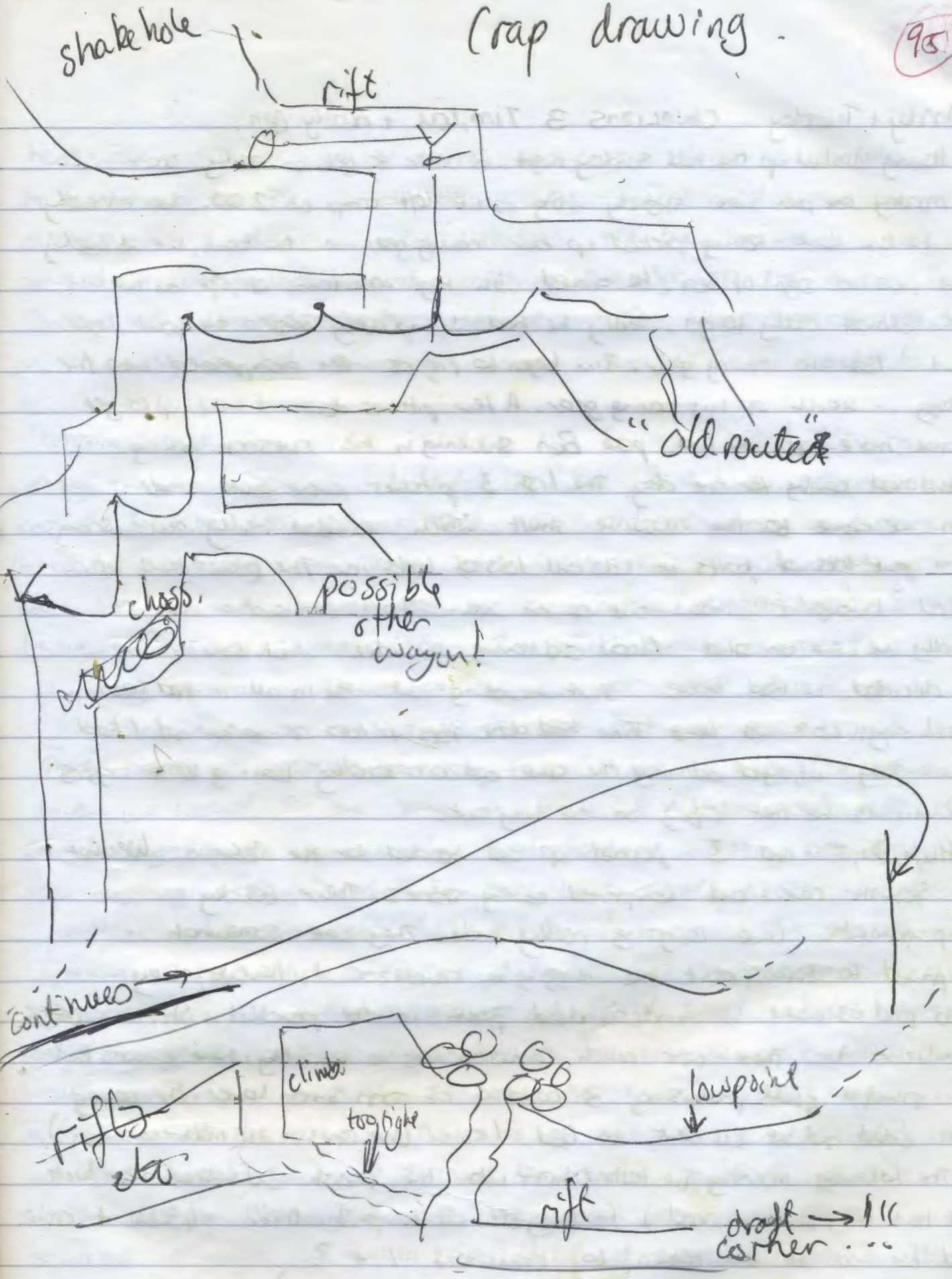
climb

too tight

low point

rift

draft corner ...





(96)

Canalizo 3

Start date

Monday + Tuesday CANALIZOS 3 Tim, Lou + nearly Ben.

Having walked up the hill Sunday night in order to get an early start on Monday the plan was slightly wrong as we left camp at 2.00. We eventually got to the cave having picked up our caving gear in the bowl, but strangely there was no sign of Ben. He arrived with huge mountains of rope as we were almost ready to go. Sadly he had completely missed the bowl and lost his caving gear. Tim began to rig as Ben disappeared into the clogg in search of his caving gear. A few pitches down I went up to get some more rope to find poor Ben shivering in his rucksack having abandoned caving for the day. The first 3 pitches were quite small then we came to the massive shaft which sounded really quite scary. Tim put lots of bolts in. Lots and lots of bolts in. The pitch kind of looped through a window out of the main shaft into another one. Finally we were on solid floor and having no idea what time it was we decided we had better get heading out. All in all it had been a good days work. At least Tim had done lots + lots of work and I had thoroughly enjoyed admiring the cave and occasionally learning some rigging techniques. We met Nobby on the way out.

Hugh, Ben, Tim and I packed up and headed for the Refugio. We met the Spanish cavers and compared caving stories. Their totally unpronounceable cave is going really well. They were somewhat surprised to hear about the digging in Canalizo 1. However, they also told us about an undersanded pitch in the parallel shaft of ~~Canalizo~~ Canalizo 1. There was much confusion as to exactly where it was but it sounded quite promising. 3 cartons of Don Simon later the caving talk ended and we all went to bed. (as in the ones with mattresses on).

The following morning we talked more with the Spanish and wished them luck (not that they seem to need it). They set off to push their 450m + cave and we set off to return to Canalizo 1 + 3.

Underground by before midday. (efficient or what?). I soon regretted the coffee in the refugio though as it was a very impractical place to have a well. 2 pitches (and several bolts) down solid floor was eventually reached. Tim once again doing all the



hard work as I tried not to think too much about the coffee. At the base of the 35m it all became very complicated with pitons and windows in every direction. Did they all link up or had we unexpectedly found something the Spanish had missed? Onward and downwards. The bolts, the rope and the slings were all used. Miraculously we had the exact amount of what was needed to reach the bottom.

"hmmm" said Tim, as he reached the bottom. "Mud. It's very pretty though". Squelch. I landed in the mud and looked around. I could feel the dreaded S word coming on again. It was remarkably reminiscent of canchizos. Once again we were standing in a lake or a sump (temporalis). Sump. I hate that word. "Sump" said Tim "It's either of these temporary sumps". Downstream there was water. A lake, or a sump, clearly just waiting to back up half way up the pitch. There was no prospect of digging here. A bit of a mud fight later we headed for the sump overflow. A minute draft and a bobbing hamme as a digging tool gave us some enthusiasm for digging. "Sump" said Tim, as I scraped at the mud and pebbles with a hamme "we're in a sump". The situation was getting rather silly. As far as I could see the passage was a flat out crawl over wet to mud and Gebil sized pebbles that needed digging all the way. Unable to see because of the dust it all seemed rather pointless. After all, next time it rains anything we dig now will fill up again. There was not much of a draft and it was definitely time to leave. We descended the bottom 2 pitches as it is highly unlikely that anyone will want to go back there. ~~Tim~~ Tim squeezed up above the 2d to last pitch and there are ~~two~~ 2 rift passages that may continue, but need a bolt. We had another look at the window at the bottom of the 35m pitch. It is difficult to tell if it is just part of the main shaft or something new that the Spanish overlooked. We eventually reached the surface and it had been a really good



trip. Although the bottom is no good, there are definitely possibilities higher up.

Low

Stop Pen --- Stop Pen --- Stop Pen ---

--- Fresh evidence for the theory of psychopetogenesis emerged today as a second big cave with an open lead at the bottom turned into scrophulous, dangerous, mud filled conder-chave mump over flow dig reminiscent of South Wales.

Canalizes 3, formerly an elegant and spacious shaft series first explored by Spanish caving group S.I.E., has now followed the route of Canalizes 1.

"we had expected the usual tight meandering rifts followed by enormous shafts, into a major idearway" said Nobby ruyford, ~~Expedition~~ leader of the Oxford University EL Rogerlan expedition, and father of none "That's what normally happens on Oxford Expeditions." We've never had this shit before."

but this time the arrival of ~~the~~ 5 South Wales Digger's on the expedition seems to have changed ~~the~~ the cave development for the worse.

"It's all in the mind" said ruyford, explaining the theory of psychopetogenesis. "if you think Wales, you get Wales." We're all terribly disappointed"



A spokesperson for the Welsh Diggers declined to comment, explaining that he was too busy ~~constructing snow-poo~~ going for his personal best snow-poo record.

Pentons - Spain.  
(Ahoi Tom)

6/8/97 GPS Snow pole "[97-6]"  
N 43° 13.713'  
W 04° 56.795' 17:22 GMT.  
Altitude 1841 mt.

6/8/97 E14 - Team 1 JC, Alison  
Team 2 Ali, Lou

A late, late start (4ish) with me and Alison in first. Removed the boulder under Ali had left in square to reveal Alison sized-hole to GTR pocket. Ali + Lou arrived with survey gear and hatched out one wall to allow easy way in and out. Slot in floor (~4') is over 10-15m pitch. Trickle and bubble beyond. Four options for progress.

1. Hammer straight down but w/ walls are solid and ab-fol-lore
2. Hammer to left of "Ship's Prow" along body sized hole.
3. Hammer to right of "Ship's Prow" taking out chassy wall.
4. Remove "Ship's Prow"

I favour a combination of 2, 3+4 to give generally more space to swing hammer. ? Two trips to get through.

On way out it started to rain which made stuff splashy AND created a stream beyond square! So wetly Big Poo - Here.



100



**5. LORO.**

Ave trepadora. De pico fuerte, grueso y encorvado y plumaje de vivos colores. Es el ave más inteligente que existe.



**BIMBOY**





**11. AGUILA.**

Ave rapaz. De vista muy perspicaz y fuerte pico y garras. Su rapidísimo vuelo sobrepasa fácilmente los 100 km/hora.

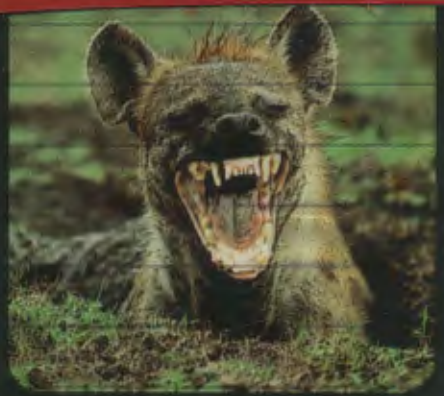
**BIMBOY**



**14. JIRAFA.**

Mamífero rumiante. Con sus más de cinco metros de altura, es el animal más alto de la tierra. Puede correr a más de 50 km/hora.

**BIMBOY**



**15. HIENA.**

Mamífero carnívoro. Come desde insectos a cebras y suelen vivir en manadas de hasta 15 miembros, dirigidas por una hembra.

**BIMBOY**





104

Tim "If you dig something small, you increase your chances of it getting bigger" Guilford.

Top Camp G-PS 043°13.809 N 97°7,  
004°56.813 W  
Height 1880m



# Welsh Digging techniques : 1.

## Replacing the keystone

(103)



4/5/6 Aug Canalizos 1 Parallel shaft

Fleur Nobby & Huw rigged to half way while Ben wandered the mountain in the clag searching for a small cave in the Bowl where his caving gear was stashed. After an hour of completely failing to find the Bowl he decided that there were two options: 1, continue searching back and forth across the mountain in the hope of passing sufficiently close to the entrance to spot it in the 20m visibility, knowing that the probability of a night spent lost in the clag was high, or 2 return to the Canalizos entrances and await the return of the cavers with a high probability of a night spent in the regiois getting pissed with the spanish. Deliberation was short and Ben returned to Cano3 entrance and did indeed spend a drunken evening with Tim Lou + Huw & assorted spanish cavers. The following day caving gear recovered Ben & Huw rigged to the bottom of the parallel shaft rigged another 12m shaft and pushed



a series of heinous rifts off the bottom of it. No glory was found but an aren was entered by Ben where a climb into a black hole (probably just an aren) was best going when bits of the climb fell on him. A small climb down was pushed by Huw into too tight rifts where further progress might be made by hammering. There are draughts in this area. On the 6th Ben & Huw returned to check out the larger set of rifts leading from the base of the shaft. The initial rift emerges in the floor of a larger canyon type stream way (dry), downstream is right and the draught (good) goes from upstream to downstream. Down stream goes to a chamber which appears to be part of an old phreatic level and the draught is lost here. A 24m pitch descends into a vadose canyon 4m wide which leads to a ~~small~~ sump (new phreatic level) Upstream crosses two pot holes. At the first two pitches were dropped 30m total to a chamber (8m by 10m) In the floor a set of V. immature rifts carries a small stream progress down the stream might be possible with hammering. The second upstream pot is unentered but didn't look promising. In general the canyon down to the 24m pitch and sump is Old mature cave (well decorated) the fact that the draught disappears at the top of the pitch suggest a way on at that level and several holes can be seen in the roof.

Ben

Could someone carry the gunter down to Rio tonight to go down the hill tomorrow please?  
Also marsh I spent carbide.  
Cheers.



All

Thanks for a highly enjoyable expedition and I'm really sorry if we (S. Wales diggers) have turned your prime expedition area into a small corner of S. Wales. The caring is great and your company was a laugh a minute. See you all at the BCRA conference for a big 'sesh' - El Ahol permitting of course - if not before  
Geebils for ever

Alie

PS. Have restocked camp with Marmalades - enjoy!!

Cheers everyone for the superb time I've had on expedition with you in the Pines. I've really enjoyed the caring and the nights in the tent at Top Camp were a great laugh. See you all again soon, I hope, in Acreon, The Lab, BCRA or wherever.

Alie

CAN III, JC, Tim, Lou

~ ~ ~ The undescended pitch was descended El Regalton '97 style; single belay at the pitch head, rebelayed off above, no slack, rope too short. One double pitch later we were all at the bottom of a 40m shaft with a short rill down to the active stream. Pushed upstream for 40m to a beehive rising slope, then down stream via two spooling discs to an unpenetrable rill. Plenty of options for a high level route. Probably the upstream end of the known cave but maybe the



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far side of the known swamp or a separate stream. We have surveyed the upstream from the swamp to the junction then down the stream level route and back to the bottom of the pldr. PSS by the swamp (Chltt creek), at the junction (Carbide S), and opposite meander at knee-height (A). Tim + Lou's last picnic trip for a while. Times excellent. Nice pop-corn, especially hotellini shapes.

JOSEP GUARRO

~~XXXXXXXXXXXXXXXXXXXX~~

~~XXXXXXXXXXXXXXXXXXXX~~

~~XXXXXXXX~~ BARCELONA  
(SPAIN)

~~XXXXXXXXXXXXXXXXXXXX~~

I think I really am going now - thanks to everyone for making this the best holiday/adventure/expedition ever. Thanks also for your patience helping me to sort everything out! If nothing else I can (at most) put my SET kit on myself now. Keep at it - I hope you find lots of cave, you certainly deserve ~~it~~ I hope that we all get together in Wales soon to go digging as there not so many people that are such a laugh to go caving with. Take care  
Lou. (not really mad).

7.8.97 Rob & Nobby → D19

After the usual late afternoon start we took a rather circuitous route to the impression entrance. The cave is basically a big rift boulder chinked at about -70m. The "going" led was a ridiculous slot between boulders that chinked immediately beyond an ~~it~~ andward square. The rift is notable not only for its size but also for the curious



property that whichever way you head you appear to be going up stream! There is also a large draft that appears to rise out of the boulder floor all along the ~~rift~~ rift. Several rift traverses were explored without success although there is a <sup>small</sup> possibility that persisting into an even higher tower level may offer a way on, if you can decide which way is down stream. An almost efficient dory took us back to the surface and a generous helping of wine took us back to the refugio where we had a fun evening ~~fun~~ with the rest of the expedition ~~before~~ saying good bye to Tim, Ali, Lou and How. The final farewell took place at Xity's main entrance where we say to the <sup>melody</sup> ~~trumpet~~ of Nobby's guitar.

Rob

GPS Readings	8/8/97	Time
11 = F2	N 43° 13. 421'	15:20
	W 004° 57. 015'	
12 = F2	N 43° 13. 467'	15:26
	W 004 57. 002'	
13 = F96	N 43° 13. 239'	16:23
	W 004. 57. 062'	
14 = Old Top Camp	N 43° 13. 547'	17:44
	W 004° 57. 006	
15 = Old Top Camp	N 43° 13. 579'	
	W 004 57. 041'	



The slightly off - White Spider

8/8/97

or a small tale of shaftbashing adventure with JC and Nathaniel.

This was the second occasion on which I'd tried to get to F96, and the gods weren't smiling on us any more this time; by the time we got to FUS6 the sun that had blazed down all day had given way to clouds & sporadic rain.

We arrived at the F96 snowfield in day, & mist swirled around the top of Punta Gregoriana high above, the face reminding me of nothing so much as photos of the Eiger in miniature. We huddled up the snow slope kicking steps as we went while we gingerly perched on the edge of a mini crevasse between the slope & the cave entrance, & it struck me why Lavin had not gone any further.

Deciding that an approach from above or rock was more sensible, Jonathan sensibly bashed down the steps we'd already kicked, while I tried to cut across the snow slope to save time. One loose step and suddenly I was rocketing down 60 feet of ice towards a Simpson-like doom, aware that in an ideal world I'd have an ice-axe to dig into the snow by my snowshoes. No such luck, and I dug my fingers into it in desperation as the large rocks at the bottom got larger very quickly. A brief crunch and I was on my feet in time to see Jonathan repeating the exercise on the far side of the snowfield -

Hmm. Reconnaissance over, we licked our wounds & attempted the slightly worse and exposed climb above the left of the snowfield, aware that the telescopes of Grindelwald and the eyes of the world's newsmen were trained upon us, eager for any hint of drama, of success ~~or~~ or failure; feeling intensely the loneliness of the high mountain explorers and anxious that the Face had us entirely within its grasp, to dispose of us as the chain took it.

The clouds swirled menacingly above us ...



CAN III Rush, Survey, Find Next Year's Big Lead, Perry J.C. + Rob.

→ Swiftly down to new pitch chockarface, Rob added a 2nd bolt for a safe T-hang, but we left the rest of the dodgy rigging in place to get down to the streaky. Pushed up stream downstream to Tim's limit, ~~with~~ <sup>and</sup> a hammer & sledge forwards to a small ledge with no way on, then hammered down to the stream with no way on, but 15m progress back to an impenetrable rift. Surprised all this + the pitch and started to climb. The plan was to try to get into the rift at the far side of the shelf. There is a good-looking chimney dot 20m down, but my attempts to get to it involved peeling off the wall with a 50:50 chance of ending up hanging over a horrendous rot-point. Better to traverse from the top to avoid the work of the chimney, then pendule in. Left this lead for next year? Rob set off with full tackle by which I climbed as far as I could, got another full bag out + hauled everything else up as far as the top of the 4th pitch. Should take 2 people a week if hours to finish. CAN III also takes a fair bit of water as I was caught by the stormio, but the rig we're due avoids in major places. Bottom of 4th pitch a bit dreg, but you are soon out of it.

J.C.

ric in the dangers of F41:  
 '... Olly was the one who was scared, not me.'



Yet another timetable Sunday 10/8/97

- Things to do :
- ~~Canalizes #1 main shaft derig (3)~~
  - Canalizes #1 parallel push / derig (2)
  - Canalizes #3 derig done (2)
  - ~~F41 survey / push (?) / derig~~
  - E12 rockmoving
  - D7 push / survey / derig
  - E14 hammer / survey / derig
  - ~~D7 collect rope done~~
  - (Someone to visit la Jayada) ??
  - Collect King la Madre detectors

sponsorship  
photos

~~W/~~  
~~XXXXXXXXXXXXXXXXXXXX~~

Sunday 10<sup>th</sup> : ~~XXXXXXXXXXXXXXXXXXXX~~ ~~XXXXXXXXXXXXXXXXXXXX~~  
(7 covers) Sponsorship photos (not done)  
~~XXXXXXXXXXXXXXXXXXXX~~ F41 (not done)

Monday 11<sup>th</sup> : Canalizes 1 parallel push / derig  
(7 people) Canalizes 1 main shaft derig  
~~XXXXXXXXXXXXXXXXXXXX~~ (TC down hill)

Tues 12<sup>th</sup> : TC goes (+ Rob for shopping)  
(3 covers) Phys + Ben go (D7 push / survey / derig?)

Wed 13<sup>th</sup> : Car 1 / E12 + E14  
(4 covers)

Thurs 14<sup>th</sup> :  
(4 covers)

Fri 15<sup>th</sup> : carry  
Sat 16<sup>th</sup> : carry  
Sun 17<sup>th</sup> : carry / load trailer + get to Puyos / leave / beach  
Mon 18<sup>th</sup> : drive  
Tues 19<sup>th</sup> : ferry at 4:30pm

~~XXXXXXXXXXXXXXXXXXXX~~  
Fin



10/8/97 → Can III Daring J.C. + Ker.

Not much to say. Derrigged top leg of 4th pile.  
All ropes / hangers / ropes etc etc surface. Also surface  
surveyed from CAN I to CAN III. Back etc etc  
within 3 hours of setting off.  
J.C.

11/8/97

Despite having a thoroughly shute time derigging R41,  
and a long half way case to harness chaffing I  
have had an excellent time on a specialier. That's  
it at Jafe and to everyone else for making  
it such an nice time.

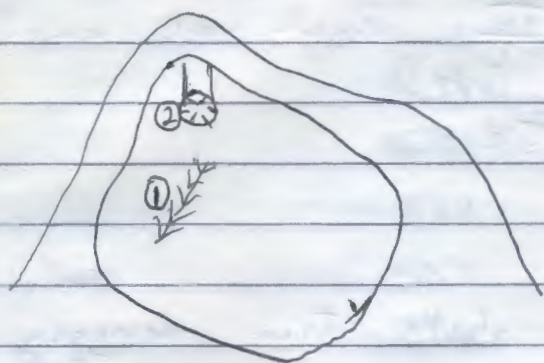
R41 has been surveyed to the bottom (but not) and  
derrigged totally. I saw some potential ways down  
in the 10 → 20m below the piling & the wgs. These  
probably drop down into the bottom pit, but by  
help in the location of 11 shells or similar  
ways over the top. The rift in the RH corner  
of the final chule looks diggable but there was  
no draft and a lot of boulders.  
J.C.



(12)

7/8/97 Shaft Bashing Ben + Alison Area E

Area of bare limestone just down ridge (E) of EL Regalon



① steeply sloping narrow stream way enters too tight cross rift at  
~ 10 m No draught.

200m  $255^\circ$  from EL regalon  $43^\circ 13.7' N$   $004^\circ 56.3' W$

② Obvious large double shaft at top of bare rock area  
20m deep 10m diam. floor boulder & snow pile No draught

In general everything in this area was well and truly  
plugged with loose rock and no draughts were felt.

C22 Tagged but not in shaft bashing guide

Small hole in base of shake hole incredibly tight draught

GPS  $N 43^\circ 13.8$   $W 004^\circ 56.2$  Alt 1773m



4/8/97 Ben, Kevin, Nobby & Rhy  
Canaligos Paralell shaft. Aims Photo Push derig

With the photo out of the way the team progressed push and derig the upstream pitches. Nobby was dispatched to the bottom in the hope that he'd confirm that the heinous rigs there really were a waste of time so that we could move on to the more interesting stuff. Instead he managed to hammer his way into them following a reasonable draft and eventually returned asking if they'd already been pushed as he'd found signs of digging. This meant I had to follow and soon realised that we'd got into the other end of the rigs originally entered from the bottom of the 12m pitch. The signs of digging were where I'd dug into the chamber with the climb that falls on you. With Nobby providing ~~psych~~ psychological support I completed the climb only to find another chamber and another climb at the top of this a ~~to~~ meander was entered which quickly became too tight and had no draft. A cautious retreat was made and pitches derigged we headed for the down stream sump where Kevin's 50w lamp ~~it~~ revealed that the most probable way on was directly across the canyon from the head of the 24m pitch. It also revealed the remnants of the original passage prior to the formation of the current canyon. This carried on over the top of the canyon into the hole we hoped to reach. I started bolting from a climb ~~at~~ above the pitch head hoping to pendulum across into the opposite passage. Whilst bolting I noticed that the draft was indeed coming around the ~~corner~~ corner and across the top of the pitch. Nobby and Rhy headed off to start derigging can I while Kevin and I made a joint effort of the bolting. Eventually I was able to pendulum / climb / claw my way into the



opposit hole from where I could see into a chamber with several possible ways on. The draft certainly goes this way and things <sup>look</sup> promising. A return should definitely be made.

Ben.

12/8/97 Ben/Rhys

I didn't catch TC last night so haven't worked out the data, sorry. It's here →  
We've gone to DT - see you in Wales.

cheers Nobby

ps Rhys - ~~about~~ how about an epic write-up...?

✓  
ok.

9/8/97 Canalizas I

As Ben says above, Nobby and I prosiked up the parallel shaft to go and de rig the main cave. As we got to the ledge where the two routes meet it was apparently thundering and raining a bit on the surface. "looks like it could be a bit of a wet one" I thought to myself as I absented away from the daylight and off deeper into the cave. I eventually caught up with Nobby at the breakthrough and we pressed on to the recumbent dump. The temporary lake/sump was not there so we picked up all the gear



and derigged the diveline. There seemed to be far more gear in the cave than we had anticipated. We already had two full heavy tackle bags, five small pitches to dig and then the 170m entrance shaft. Also, no empty bags.

"Hmmm, let's see how far we can get!"

Derigged back to the breakthrough with no real problem. Dumped the rescue kit and carried on with two tackle bags of rope. Time was ticking on, we would have about one hour to get up the main shaft and one hour to walk back to top camp just in time for our callout at midnight. The rest of the derigging would have to wait.

The main shaft seemed a lot wetter than it was on the way in, but I set off up leaving Nobby to shelter at the bottom singing "The body of an American" by the Pogues. First rebelay passed fairly rapidly ~~to~~ if a little on the damp side. The next hang was ~~of~~ in the full force of the water.

No chance of keeping a flame going and full pellets within a few seconds.

As I approached the next rebelay... "Hmmm, that looks quite tight, my light is fading, It's wet here." I thought.



(sketch) Attempted to pass  
 rebelay. This isn't going to be  
 easy. "This isn't going to be  
 easy." came to mind. Suddenly  
 total blackness. Batteries dead.  
 Cold wet hands unable to install  
 fresh ones correctly. Try rebelay  
 in dark. "Shit, this is tight".  
 Shout to Nobby "I'm at  
 a rebelay with no light, this could  
 take a while". Grunts and  
 groans, can't pass the thing.  
 Gloves off but can't feel  
 what's a rope jammer or  
 anything. "Very wet here, I'm  
 soaked to the skin, must  
 get out of this water soon."  
 Try torch again, no good.  
 Try rebelay. Still soaking  
 wet and getting colder.

"I'm sure there's a ledge  
 that this tape rebelay is  
 attached to, I've got to get  
 out of the water."

Nobby still singing.... "Is the  
 rope free, yet?"

"No" I reply.  
 Maul up with all my strength on  
 the tape. Get on leg on ledge.  
 Something's weighing me down. The  
 tackle bag of rope is carefully  
 removed and clipped to rebelay.  
 Prusik bag clipped to my other side



on the ledge. Still can't move.  
 Jammed now hard up against the knot. Still blackness and water.  
 "Shit, I really don't like this!"  
 Arms failing I pull up onto the ledge fighting the rope below as I go. Semi comfortable now.  
 In the dry, still dark. Still being pulled off my ledge by the rope below. Still can't sort the batteries out. Try hauling tackle bag up to take some weight off the rebelay. It's jammed. After a few more minutes I hear the tackle bag whistle off down the pitch. "Below!"  
 I shout with three batteries in my mouth.

"What the Fuck was that?!" ~~cries~~  
 cries singing Nobby.  
 "Err, only my tackle bag full of rope, are you okay?"  
 "Yes, is there anything I can do?"  
 "No, just give me a minute."

Well the tackle bag is on less problem. Now, Nobby can't come up and help me 'cos if he prossiks up he'll pull me off the ledge. Also my leg is through the tape and fuck knows if it is still secure. Have to take my harness off. Foot loop wrapped around the "up rope" and clipped to my belay belt. "That's not very safe"



(18)

"Ahh, spare jammer." - I find it and clip that to my belay belt and the rope. "phew, safe" kit slid nicely off. Able to stand up.

"Nobby, you'll have to prussik up to me and give my some light"

"Is it safe?"

"Err, hold on a minute...."

Yes it is now" ~~as~~ I reply having located the tape and put it back in the slot it came from. Fucking cold now

As Nobby approaches the rebelay and my gear hanging from it. ~~My light~~ I get my light to work.

"Can Nobby help me?" I wonder, "I'm cold he's been hanging at a rebelay below in the water for probably half an hour. Is he hypothermic?"

~~(Perhaps that's not)~~ Now I start to really worry! Nobby passes the rebelay by prussiking up my chest harness or something and we both shiver together on the ledge. He seems very slow and

Not sure what to do. "Shit we're both going down with hypothermia"

I think. The rebelay won't come undone, so I persuade Nobby to cut the rope above my jammes. ~~as~~ ~~to~~ This will be the quickest way



we'd both get out of this hell hole, with  
 pissing about on gussik knots or passing  
 gear up and down. I get my  
 kit on and by now by carbide light  
 has dried out and will work again.  
 Warmth. Both now ready to head  
 out but neither wanting to leave our  
 cosy warm dry ledge. Sounds of  
 people above. Hellos " . . . no answer.  
 Nobby heads out, I follow to  
 meet Kev. at the entrance. No  
 rain, clear skies, lightening far  
 away. Bloody wet and cold.  
 One hour overdue and still a good  
 walk to top camp.  
 Rhys.

12/5/97.  
 Thanks all for a great ~~holiday~~  
 expedition. Thanks especially to Nobby  
 "The knife" Mumford for organising  
 stuff and saving me. See you  
 at the BCRA Conf. or in  
 Wales. Dan yr Ogof or Ogof Ffynnon  
 Ddu trip leaders required. Contact me.  
 Rhys. cmrw@Swansea.ac.uk

ps. Have an Irish coffee on me.



(120)

11/8/97 Ben & Rhys Canalizo Parallel shaft.

Best trip of the expedition and the final chance to see if the sump bypass would go. So the order of the day was to find a going lead and leave it at a pitch head as in this case we had permission not to derig the cave. Returning to the end of my last rope, one more bolt got us to the floor of the chamber overlooking the 2km Spanish pitch. Crossing the chamber was easy but anything dislodged went straight down the pitch so a sort of traverse line was left in place. The biggest hole out of the chamber lead into a sizeable rift (no squeezing required) which even had a floor occasionally. The walls were mostly popcorn (take no hold for granted) and progress is to the musical tinkle of falling crystal. Rhys in the lead came to a point where the traversing was becoming a bit too interesting for safety and a chamber could be seen 20m below. Boltings a pair so a semi-dodgy natural was quickly manufactured from a nearby flake and one bolt saw Rhys to the chamber floor. On one side there appeared to be a 8m high 4m wide passage leading off so collecting a few slings in anticipation of further climbs I cut 8m of rope off the bottom of the pitch and rigged the 3m climb down. This lead around the corner to solid wall. It seemed the cave was going to have the best laugh and that this was some kind of inlet area. Back at the base of the pitch Rhys found the draught going into a smaller rift but reckoned the best way in was high up. I headed into the bottom through a forest of popcorn. Initially high the roof progressively lowered the further I went. It was obviously an old sump but from the draught



Blowing through it now there had to be some way on at the end. At the point where I was forced to crawl I could suddenly see a pool of blackness ahead of me, was it water or a pitch? From 4m back I threw a stone and was relieved to hear silence and then an echoey boom as it whumt down a large pitch. Reaching the edge I found myself looking out from a small window in the side of a shaft to the floor about 25m below (my guess by Rev light but 4-5s drop to take more rope). With no more rope in the bag we had scorgilled the days objection to the letter and began surveying out. reached surface at 8 and were eating steak sandwiches and chips in bars Largas at 10. What a stunning last trip - best of the expedition.

Many thanks for letting me come and to Wobby for all the organisation. There are plenty of draughts in Canalizos and it seems to be the key to something (hope gully downstream 64) lets hope so any way

May the depth be with you  
(and Bigger the coherence)  
Been

Maximum randomness for more chance discoveries.

P.S.I re Number crunched the survey data and then nail plotted it onto the spanish survey along with various estimated depths. Its still along way from the can 1 rising sump so it could well go straight under it - Only exploration will tell!!



Anyone Interested in digging south Wales (still 4 more  
megga system to find) ~~the~~ get in touch there  
all way something happening

Ben Laneth

~~XXXXXXXXXXXXXXXXXXXX~~

Pontypridd

~~XXXXXXXXXXXXXXXXXXXX~~

~~XXXXXXXXXXXXXXXXXXXX~~

GPS stuff:

yesterday (12/8/97)

D7 : N 43° 13. 860' time 11.17  
W 004° 56. 905'

today (13/8/97)

F88 N 43° 13. 500'  
W 004° 56. 713' time 12.55

Top Lump (97-8)

43° 13. 727' alt 1851  
004° 56. 805' time 14.32



I've gone to E14 to collect rope (7.15 pm)  
NJM

↓ (10 pm)

Now I'm back again. It really is a good prospect; does  
for leaving an extra bag of rope at the bottom to struggle with.  
Beautiful evening an exit made up for it all.





*Es kommt nicht auf  
die Größe an!*



Munich, 8 August 1997

ooo Small ones can be beautiful, too ooo

Well, dear Nobby, dear hangers-around-at-end-of-Expedition, basically don't worry about us. We were in the midst of preparing & packing for returning to the Picos after 3 years when we were thrown off track & schedule by a major cave rescue operation here, the second such in two weeks after years of quietness in this respect. (When you return to GB, ask Steve R for my report if you're interested.) Once this was over, we were facing the prospect of spending more time driving there and back than actually camping/carrying (let alone caving) with you; we couldn't have made it before Sunday 10 August. From Gavin we heard that you won't be desperately short of sherpas, so ... although it's a shame, maybe it's our fate ... we won't see you there this summer. Maybe, maybe, let us hope, in Yorkshire at New Year ...

- Lots of sun, sheep, cows, rope, shafts, depth, potential, g Ext 143 / younameit, piccies, and a safe journey home to you all! *Alan & Gerhard*



(B1)

Cave Area	Team	Date & time in	Expected time out	Call out
<del>C4, first 7 pits</del>	<del>Olly, Fenella Keith</del>	<del>7/7/97 16.30</del>	<del>22.00</del>	<del>23.59</del>
<del>C4. Rigging to Salt of Lenses</del>	<del>Will Jo Alison</del>	<del>8/7/97 left Cave at 1.30 pm</del>	<del>21.29</del>	<del>22.59</del>
<del>C4 to High Brown</del>	<del>Gavin Olly Fenella</del>	<del>10/7/97 1.30 pm</del>	<del>22.00</del>	<del>23.59</del>
<del>C4 to monster</del>	<del>Jo Alison Keith</del>	<del>10/7/97 1.30 pm</del>	<del>22.00</del>	<del>23.59</del>
<del>C4 to Gooseberry Pot (Rigging High Brown onwards)</del>	<del>Nobby Will Jo</del>	<del>11/7/97 OUT</del>	<del>12.01 am (12/7/97)</del>	<del>9 am (12/7/97)</del>
<del>C4 to March Seat</del>	<del>Gavin Olly Fenella</del>	<del>12/7/97 9.30</del>	<del>23.00</del>	<del>MORNING (SITST thing)</del>
<del>Shaftbashing in Area F</del>	<del>Will Nobby Keith Alison Fenella</del>	<del>14.15 12/7/97</del>	<del>19.58</del>	<del>21.00</del>



Cave Name	Team	Date & Time away	Expected back	Call out
<del>F41, F80, Cabrona</del>	Gavin, Ollie Will, Alison	14/7, 15.00	18.00	20.00
F80, Cabrona (Shaft washing)	Gavin Nobby	15/7, 11.45	<del>18.30</del> 14.30	<del>18.30</del> 17.00
<del>F41</del>	<del>Keith</del>	15/7, 12.00	18.30	20.00
<del>D7</del>	<del>NJM, Alison</del>	15/7 5.30	20.30	22.00
<del>F41</del>	<del>NJM, Keith</del>	16/7 <del>19.15</del> when the rain stops 19.15	<del>20.30</del> 21.30	<del>22.00</del> 23.50
F41	Gavin Alison	17/7/97 11am	8pm	10pm
C4	Out <input type="checkbox"/> Ollie NJM, <input type="checkbox"/> Ollie Fealla, Jo	11.30am 17/7/97		Morning 18/7/97 Extend to 10.00am
<del>shakeholes entrance</del> F41	Keith Will	17/7/97 2pm this afternoon, possibly	9pm	11pm
F88 Couple of shakeholes further up slope from F41	Keith Nick	18/7/97 1pm	9pm	11pm



Cave + Area	Team	Date + Time away	Expected time Back	Current
Walk - Jettayun Ario - Base	Will.	3.00pm 18/7/97	Base before dark	11.59am 19/7/97
<del>Gregorio</del>	Gavin	3.30pm 18/7	19.00	21.00
<del>F90, F87 F89, F5D F28, F32</del>	<del>Gavin</del>	<del>19/7 11am</del>	<del>18.00</del>	<del>19.00 20.00</del>
F88	Nick Kidd		21.00	23.00
F88 (sing)	Kerth Nobby Nick	11am 20/7/97	20.00	21.30
<del>F78, F19</del>	<del>Gavin</del>	<del>11am 20/7</del>	<del>17.00</del>	<del>19.00</del>
F41	Will + Mad Ian	11.15am 20/7/97	17.00	18.00
F41	Andy Jo	2.30pm 20/7/97	20.00	21.00
<b>F88 (push)</b>	<b>Ol Alison</b>	<b>20/2/97</b>	<b>OUT</b>	
F88	Will + Somewhat cautious	21/7/97 11.30am	18.30	20.00
Walk - F88 - Curiente - Jettayun - Ario - Top Cup	Ally	21/7/97 11.30	18.00	20.00



Cave 2

Area	Team	Date & time away	ETB	Callout
<del>D7</del> (push & survey)	<del>NOM, Alison</del> Andy	<del>21/7/97 2pm</del>	<del>20.30</del>	<del>22.00</del>
<del>F88</del>	<del>Gavin, Pete</del>	<del>22/7 10.40</del>	<del>21.00</del>	<del>23.59</del>
<del>F41</del>	<del>Ali, Lou, Jo</del>	<del>22/7 12:30</del>	<del>19:00</del>	<del>21:30</del>
<del>Paralizes</del> <del>de g. #1</del>	<del>Rob, Nathan</del> Huw	<del>22/7 midday</del>	<del>22.00</del>	<del>midnight</del>
<del>Canalizes</del>	<del>Gavin, Huw</del>	<del>23/7 11.40</del>	<del>20.00</del>	<del>23.00</del>
<del>F41</del>	<del>Ali, Lou, Jo</del>	<del>23/7 2:30</del>	<del>22:00</del>	<del>midnight</del>
<del>F56 (F88)</del>	<del>Rob, Andy, Fleur</del>	<del>23/7 2:30</del>	<del>22:30</del>	<del>midnight</del>
<del>Canalizes</del>	<del>Gavin, Huw</del>	<del>24/7 10-30</del>	<del>22.00</del>	<del>midnight</del>
<del>Shafhering</del> In Area F.	<del>Will, Lou, Jo</del>	<del>24/7 6.00pm</del>	<del>19.00</del>	<del>20.00</del>
<del>F56</del>	<del>Rob, Fleur</del>	<del>24/7 12.50</del>	<del>18.50</del>	<del>22.00</del>
<del>F41</del>	<del>Ally + Ali</del>	<del>24/7 13.07</del>	<del>20.37</del>	<del>23.07</del>
<del>D7</del>	<del>Alison + Fleur</del>	<del>25/7 13.30</del>	<del>19.30</del>	<del>21.30</del>
<del>Canalizes</del>	<del>Andy, Oli</del>	<del>25/7 13.25</del>	<del>21.25</del>	<del>23.00</del>
<del>Our party</del> <del>left cave</del>	<del>Rob, Lou</del>	<del>25/7 10:00</del>	<del>14:00</del>	<del>15:00</del>
<del>F56 (F88)</del>	<del>Pete, Fleur</del>	<del>26/7 Midday</del>	<del>19.00</del>	<del>21.00</del>
<del>P° Conjecture</del>	<del>Gavin, Dan</del>	<del>26/7 15.30</del>	<del>19.00</del>	<del>21.00</del>

TWO F10/05 10 287 (new)



83

Science F88 of Canalizos Carry

Ian	Gavin	Rob	Andy	Ali
Stacy	<del>Stacy</del>			Pete
Wiff	Pete	Huw	Fleur	Huw
Alison		NJM		Lou
Nobby				Jo

F41 ✓ (push & dig)  
 { Ali  
 Lou  
 Jo

Covers	Lou	Ian
<del>Jon</del>	<del>Jon</del>	<del>Jon</del>
<del>JK</del>	<del>Alison</del>	<del>Ben</del>
<del>Huw</del>	<del>Rob</del>	<del>Rhys</del>
<del>Ali</del>	Ol	Andy
Rob	Pete	

- 26/7/97 - F88 survey & dig
- F41 x 2 (3)
- Canalizos (3)

<u>Canalizos</u>	<u>F41 photos</u>	<u>F41 others</u>	<u>F88</u>
Gavin	Jon	Jon ? <del>Jon</del>	Huw ? + 2
Andy <del>Andy</del>	Ben	Ali	Lou
	Rhys	Fleur Ian	Rod
	+ <del>Stacy</del> Alison	<del>Stacy</del>	

Shaftboring or D7 or F46 ?  
 surface survey Canalizos D19 ? F41 ?  
 Gavin Ali Fleur  
 Alison Rob

Can 3  
 Lou  
 JK ?  
 shaftboring ?  
 JK ?



### Survey B of F88

	x	y	z	EE	st			
10	1.96	205	-25	-7.04	-22.36	-75.03	28.05	10
9	3.10	198	-3	-7.79	-23.97	-75.86	29.83	9
8	5.59	180	-80	-8.75	-26.91	-76.02	32.92	8
7	23.54	192	-70	-8.75	-27.88	-81.53	33.89	7
6	14.80	165	-76	-10.42	-35.76	-103.65	41.94	6
5	13.92	62	7	-9.49	-39.22	-118.01	45.52	5
4	3.46	250	-30	2.70	-32.73	-116.31	59.34	4
3	11.79	244	-25	5.00	-30.81	-118.04	62.34	3
2	7.20	65	-62	12.42	-23.12	-123.02	73.02	2
1	7.87	45	-30	15.49	-21.69	-129.38	76.40	1
0				20.31	-16.87	-133.31	83.22	0

Note: station B.10 incorrectly equated with A.8. Needs connecting leg

Station 10: belt at start of traverse

Station 8: belt at end of traverse

Station 5: belt at bottom of P42

Station 0: belt top belt of Y at top of final 40m snow slope.







Canalizers

Survey of 24/7/97 by Gurn and Hawn

	x	y	z	EE				
21	3.10	259	13	0.00	0.00	0.00	0.00	21
20	5.58	41	12	-2.97	-0.58	0.70	3.02	20
19	2.69	136	-42	0.62	3.54	1.86	8.48	19
18	<del>5.00</del>	54	-10	<del>2.00</del>	2.10	0.06	10.48	18
17	5.70	66	-2	5.99	5.00	-0.81	15.40	17
16	5.87	51	4	11.19	7.32	-1.01	21.10	16
15	9.56	54	-16	15.74	11.00	-0.60	26.95	15
14	5.10	295	-26	23.68	16.40	-3.24	36.14	14
13	2.72	37	-58	19.02	18.34	-5.47	40.73	13
12	4.51	60	19	19.89	19.49	-7.78	42.17	12
11	5.00	359	9	23.58	21.62	-6.31	46.43	11
10	5.69	298	3	23.49	26.56	-5.53	51.37	10
9	6.48	8	-25	18.48	29.23	-5.23	57.05	9
8	4.34	17	-30	19.30	35.04	-7.97	62.93	8
7	10.85	12	-51	20.40	38.64	-10.14	66.69	7
6	9.76	288	20	21.82	45.32	-18.57	73.51	6
5	13.92	316	-50	13.09	48.15	-15.23	82.68	5
4	3.24	7	-2	6.88	54.59	-25.90	91.63	4
3	7.85	74	-3	7.27	57.80	-26.01	94.87	3
2	10.66	34	-3	14.81	59.96	-26.42	102.71	2
1	<del>9.20</del>	<del>235</del>	<del>3</del>	20.76	68.79	-26.98	113.35	1
0	9.20	235	43	28.29	74.06	-26.50	122.54	0



(B9)

(5)

(D)

F41 except big shaft 22/07/97 Ian + Will

#1 = Bottom

#15 = Entrance boulder

				x (i)	y (u)	.2	GC
15	11-13	224	-58	0	0	0	0
14	6.79	230	-69	-4.10	-4.24	-9.44	5.90
13	6.30	220	-87	-5.96	-5.81	-11.78	8.33
12	<del>13.80</del>	216	-68	-6.17	-6.06	-22.07	8.66
11	<del>10.90</del>		-90	-9.21	-10.24	-34.86	13.83
10	9.00	168	-52	-9.21	-10.24	-45.76	13.93
9	8.12	222	-54	-8.06	-8.66	-12.86	19.57
8	15.03	188	-41	-11.25	-19.21	-19.42	24.14
7	10.83	261	-21	-12.85	-30.44	-69.29	31.49
6	3.76	201	-32	-22.82	-32.02	-73.17	41.60
5	5.30	125	-69	-23.96	-35.00	-75.16	48.79
4	4.22	251	-16	-22.41	-36.09	-80.11	10.69
3	2.64	114	-35	-26.24	-37.41	-81.27	14.74
2	2.61	202	-7	-24.35	-38.46	-82.79	16.91
1				-21.32	-40.96	-83.10	19.50

(two side legs from #3)

3 6.69 281 -9

3A (roll) -32.73 -36.15 -82.32 61.35

3 5.02 125 +33 -22.39 -35.82 -72.64 10.91

3B (roll) 7.98 220 -14 -27.77 -45.76 -80.47 66.70

3C (roll)

*[scribble]*



211 Phredia Lake aff'd  
Breakthrough

(E) BIO

CANALIZOS #1 SURVEY BY OLLY & ANDY  
25/7/97

SURVEY STN 1 CORRESPONDS TO STN 14  
ON THE SURVEY OF 24/7 BY GAVIN & HAW.

	DIST	BEARING	ANGLE	X	Y	Z	GE
1	4.73	209	+13	23.18	16.4	-3.24	36.14
2	4.76	035.5	+36	20.95	12.37	-2.18	40.75
3	5.82	088	+2	23.18	15.50	0.62	44.60
4	3.70	124	+1.5	28.72	15.71	0.82	50.42
5	4.60	091.5	+0.25	32.06	13.64	0.92	54.11
6	3.13	066	-4.5	36.66	13.52	0.94	58.71
7	5.56	33.5	-0.5	39.51	14.77	0.80	61.84
8	1.80	083	+9.5	42.58	17.42	0.65	67.37
9	2.74	019.5	-6.0	44.34	19.64	0.945	69.17
10	5.55	073.5	-6.0	45.25	22.21	0.66	71.90
11	8.89	131.5	-0.5	50.76	21.87	0.08	77.41
12	0.91	120	+12	57.42	15.98	0.00	85.30
13	2.89	211.5	-3	58.19	15.54	0.19	87.19
14	6.18	229	-2	56.68	13.08	0.04	90.68
15	5.72	206.5	-3	52.02	9.02	-0.19	95.26
16	1.38	135.5	-0.5	49.47	3.91	-0.48	101.72
17	4.78	133	-12	50.44	2.93	-0.49	103.35
18	5.10	078	-7	53.86	-0.26	-1.48	108.02
19	4.26	032	-14	58.81	0.79	-2.10	115.09
20	3.47	098.5	+18	61.29	4.09	-3.13	117.22
21	2.45	063	-24	64.56	3.60	-2.66	120.52
22	3.68	099	-38	66.55	4.62	-3.06	122.76
23	3.80	120	-41	69.42	4.17	-5.32	125.66
24	3.57	108	-41	71.90	2.73	-7.82	128.53
25	2.91	169	-22	74.46	1.90	-10.16	131.27
26				74.98	-0.75	-11.25	133.92



B11

Case	Team	Date	Time away	Expected back	Call out
<del>Conalijos</del>	<del>Gavin, Andy</del>	<del>27/7</del>	<del>10am</del>	<del>21:00</del>	<del>23:00</del>
<del>F56/88</del>	<del>Huw, Lou, Rod (Pete)</del>	<del>27/7</del>	<del>11:30am</del>	<del>18:00</del>	<del>21:00</del>
<del>F41</del>	<del>Tim, Ben</del>	<del>27/7</del>	<del>11:30am</del>	<del>19:00</del>	<del>23:00</del>
<del>F86/F46/F41</del>	<del>Ally, Alison, JC/Al./Flew</del>	<del>27/7</del>	<del>11:30am</del>	<del>19:00</del>	<del>23:00</del>

~~Conalijos~~ ~~Gavin~~ ~~28/7~~ ~~11:30~~ ~~17:00~~ ~~19:00~~  
~~NN/Flak~~

~~C4~~ ~~Huw~~ ~~28/7~~ ~~11:30am~~ ~~Midnight~~ ~~9am 29/7~~  
~~Ben~~  
~~Ally~~  
~~Pete~~

~~F41~~ ~~JC~~ ~~28/7~~ ~~11:45~~ ~~20:00~~ ~~23:00~~  
~~olly~~

~~Conalijos 9~~ ~~Rob~~ ~~28/7~~ ~~12:30~~ ~~23:00~~ ~~08:00 29/7~~  
~~Tim~~  
~~Lou~~

~~F88~~ ~~Jo~~ ~~28/7~~ ~~15:30~~ ~~23:00~~ ~~08:00 29/7~~  
~~Paul~~

~~Conalijos~~ ~~Gavin, JC~~ ~~29/7~~ ~~10:00~~ ~~21:00~~ ~~24:00~~  
~~Rings~~

~~D19~~ ~~NSM, Flew,~~ ~~29/7~~ ~~12:30~~ ~~20:00~~ ~~23:00~~  
~~Rob, (Pete)~~

~~F88~~ ~~Alison~~ ~~29/7~~ ~~2:00~~ ~~20:00~~ ~~23:00~~  
~~Huw~~

~~Conalijos 1~~ ~~Jo~~ ~~29/7~~ ~~15:30~~ ~~08:00~~ ~~08:00~~  
~~Paul~~  
~~olly~~ **OUT**



(B2) (F)

Canalizes : sometime sump to choke Gavin & Andy 27/7/97

	x	y	z	EE	Station			
9	10.40	48	-32	28.29	74.06	-26.50	122.54	9
8	4.67	32	6	34.84	79.96	-32.01	131.35	8
7	4.90	335	28	37.31	83.90	-31.52	136.00	7
6	5.77	12	34	35.48	87.82	-29.22	140.33	6
5	7.33	87	5	36.47	92.50	-26.00	145.11	5
4	8.62	358.5	2	43.76	92.88	-25.36	152.42	4
3	16.01	341	0	43.54	101.49	-25.06	161.03	3
2	10.90	28	1	38.33	116.63	-25.06	177.02	2
1	7.33	54	-4	43.44	126.25	-24.87	187.94	1
0				49.36	130.55	-25.38	195.25	0

water sink level -32.2  
 sump level -28.2

	left	BTS	Call out
Walking up to Verdellenger right along ridge	4:40 pm 29/7.	10:00 am Wed: morning	4pm Wed



(9) B13

28/7/57

SNOW POLE → 1460 #

CALIBRATION FAN NEW SET CALIBRATION + 50

F41#2 J.C. <sup>Book</sup> ONLY ONLY INSTR. FROM PARTING OF WAYS TO NEAR

STATION INTO WAYS.

HEAD OF "70"

				X(E)	Y(N)	Z	GC
0	2.25	20.5	-15	-9.21	-10.24	-45.76	13.93
↓ 1	2.02	98.5	-67	-9.26	-7.66	-46.50	16.18
↓ 2	10.25	149	-81	-5.53	-8.07	-52.96	19.32
↓ 3	6.94	206	-78	-4.71	-9.44	-63.08	20.93
↓ 4	4.17	<del>206</del> 49	+79	-5.33	-10.72	-69.77	22.35
↓ 5	19.40	-	↓	-4.73	-10.20	-61.68	23.15
↓ 6	12.98	-	↓	-4.73	-10.20	-81.08	23.15
↓ 7	26.21	<del>211</del> 44	<del>252.5</del>	-4.73	-10.20	-92.06	23.15
8				6.35	1.28	-118.85	39.10

NB STATION 4 (A TRIPLET STATION IN SNOW) WAS FOUND TO BE ABOUT PLACED HENCE SURVEY BACK TO 5 = PITCH BELAY.



CALIBRATION - New SET (Green Tape) . 29/7/97

S. Polar La. Verd. Compass 147° Class +50

Things we don't need

- Tea, Coffee, Malt
- Beans, Pasta, Rice
- Skines
- Pepper

Things we need

- Bread, Long knife
- Fresh Veg, Uno
- Soaps, Salt
- Herbs & Spices (not Pepper)
- Curry Powder
- Tinned Fruit
- Tinned Tomato & Tomato Puree
- Tuna



BWS

CAVE TEAM DATE & TIME AWAY EXPECTED CALLOUT

D19 Nobby, Flann + Rod 30/7 14:50 21:00 23:00

Can 1 Jim, Lou, Rob 30/7 14:00 02:00 08:00  
Alt: Ben, Andy

Surface  
Veroblygo-  
Cuisage  
W3/R/Photos  
Paul, Jo 30/7 15:00 20:00 23:00

.C4 Paul Jo 31/7 11:40 4:00 10:00  
(photos) Rhys JC

Tim & Iz ~~1/8~~ <sup>near X-tu</sup> 2:45 21:00 00:00

Cl4 Gavin 1/8 7:40 23:00 08:00  
(breakfast TV)

Ben, Rob, Ali 1/8 10 am  
(Richard + Judy)

Andy, Rod 1/8 midday  
(Pebble Miu)

Thom, Lou 1/8 2 pm  
(Quincy  
& Blumbo)

NTM Fleur 1/8 4 pm  
(15 to 1 & Countdown)

Tom, Alison 1/8 6 pm  
(Aussie scraps &  
Tour de France)

Sub Tim  
(BBC 2 Test card)



(4) 2  
 B16

# Surface Survey, Canalizos → Xitla

Station	↓			x	y	z	
0	50.00	105	1	0.0	0.0	0.0	0
1	50.10	78	1	48.3	-12.9	0.9	1
2	46.30	28	-18	97.3	-2.5	-1.7	2
3	40.2	354	-7	118.0	36.4	-12.6	3
4	50.0	82	-16	113.8	76.0	-17.5	4
5	50.2	78	-4	161.4	82.7	-31.2	5
6	50.2	76	8	210.4	93.1	-34.7	6
7	49.8	93	10	258.6	105.2	-27.76	7
8	26.7	77	25	307.6	102.6	-19.1	8
9	50.1	85	18	331.2	108.0	-7.2	9
10	47.8	42	4	378.6	112.2	7.7	10
11	33.8	70	-1	410.5	147.6	11.0	11
12	20.0	119	-17	442.3	159.2	10.4	12
13				534.2	150.0	4.6	13
				459.0			

station 0 = green O inscription at Canalizos entrance

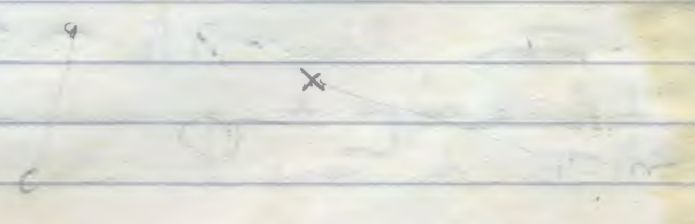
station 13 = ⊗ inscription at Xitla.

There is a 20x30m stakehole to the north of station 5, within a 150m diameter bore.

coordinates of SIE chamber : (30, 75, -192)

coordinates of date w/ SIE chamber (49, 131, -25)

(79, 206, -217)





B17

OUT ETA Callout

2/8/97 J. C 12:30 Los Lagos 6pm  
→ Area E → Areas 9 → Los Lagos 9pm

2/8/97 Huw & Fleur 1:20pm 6:30pm 8:00pm  
Dig in F13

2/8/97 Rod & Robby 1:20pm 5:00pm 8:00pm  
F96

3/8/97 Fleur NDM 4pm 8pm 11pm  
shafts area E/C/S

4/8/97 NDM, Huw, Fleur 2pm 10pm midnight  
Canalizo de L #1  
(parallel shaft)

4/8/97 JC, AL 2:30 7:00 10:00  
E/F Boundary Shell-bashing.

4/8/97 Tim, Ben, Lou & Mod 2:30 going to Refugio.  
Returning to Car 3 5/8/97  
Returning 5/8/97 to Car 3 tomorrow.

4/8/97 Rob, Rhys 14:30 18:00 20:00

5/8/97 Tim, Lou, Ben, Huw midnight  
Canalizo 1 + 3

5/8/97 Tanaka, Ali, Alison 3pm 9pm 11pm.  
'JC's bottomless pit' EA

5/8/97 NDM, Rhys 3:00pm 8:00pm 10pm  
D19

~~5/8/97 JC, AL, Alison 12:30 8pm 10pm  
JC's bottomless pit EA~~

6/8/97 Rob Rhys 3 ET A Callout  
Canalizo 3 midnight 8am



Date	People/ Trip	Leave Camp	ETB	Callout
6/8/97	Hum + Ben Can I Parallel shaft	3:20 pm	12:00	9:00 am 7/8/97
6/8/97	JC + Allison E14	3:26 pm	9:00 pm	11:00 pm
6/8/97	Ali + Lou E14	5p	9pm	11 pm
7/8/97	JC, Tim, Cou CAN III	1:30	8pm	12 midnight At A120.
7/8/97	NTM, Rds D19	3:30	8pm	midnight at A120
8/8/97	NTM, JC Shafts around F96	4-30	8pm	10pm
9/8/97	Canalizers #1 Ben, NTM, Kev, Phys	parallel e main	9pm	midnight
9/8/97	Rds, JC, <del>NTM, Kev</del> Canalizers #3 survey & push & deig		8pm	midnight
10/8/97	JC, Kev Car 3 deig.	4:00 pm	8pm	10pm
11/8/97	Can 1 main shaft deig lib, Kev, NTM	10:30	6pm	9pm
11/8/97	R41 Perig JC, Alison.	11:45	6pm	10pm.
11/8/97	Can 1 parallel push Ben, Phys	11:30		tomorrow
12/8/97	DT push/survey/deig NTM, Alison, Kev	12:00	9pm	11pm
13/8/97	Canalizers de by 1 Rds, Kev	parallel shaft 12:30	?	midnight



B19

I

CANALITHOS III - Streamway at bottom of New Pitish "Clustafut"  
Tim (Ankr.) , J.C. (Both) , Lou (Tige) . Inst Set 2 = 54.12 Chino.

Survey out of Cave from Rising Upstream Song.

	L	O	L	2 (ft)	1 (ft)	2	EG
0							
1	8.79	255	-4.5	0	0	0	0
2	4.15	327	-14	-8.88	-1.49	-0.46	4.77
3	8.78	014	-12	-7.77	1.88	-1.46	9.80
4	3.84	088	-29	-8.69	10.22	-3.28	18.39
5	4.02	105	+15	-2.33	10.33	-8.15	24.75
6	2.12	046.5	+27.5	1.42	9.33	-4.10	28.63
7	7.50	381.5	-26	2.78	10.62	-3.13	27.51
8	2.94	065.5	+3	1.78	17.29	-6.48	34.25
12	6.12	148.5	+10	4.36	18.47	-6.27	37.09
13	5.38	104	+3.5	6.57	12.86	-8.20	43.11
14	5.87	109.5	-15	11.78	11.56	-4.87	48.48
				17.13	9.67	-6.39	54.15

Inst Set 0 = Bolt MARK on rock ABOVE SUMP

Inst 8 = Junction between Up + Downstream + Meander.

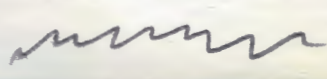
Inst 14 = KNOWN MARK on WRM OF PITCH BOTTOM OPPOSITE MEANDER.

Survey OUTLET DOWNSTREAM FROM IN PENETRABLE PIT (9B) TO STATION 7 OF ABOVE. SURVEY OF CAVE.

2700 hrs 050

6:22

				X (ft)	Y (ft)	Z	EG
7	3.70	366	-40	1.78	17.29	-6.41	34.25
11	6.05	330	-62	2.50	14.39	-8.53	37.24
10	6.55	0	-90	1.08	16.85	-14.27	40.08
9	3.00	050		1.08	16.85	-20.82	46.08
9B				3.38	18.78	-20.82	43.08





CAN III - Down stream of Bottom of - New Pledge

R84 (Block) JC (Intr) New Soudo's.

	DATE	COMP	C/N/O				
7 (= Junction Mr 8)	<del>3.48</del> 3.25	26	-10	17.8	17.29	-6.41	34.25
6	<del>4.44</del> 4.48	60	-12	3.47	20.75	-7.07	38.10
5	<del>3.97</del> 4.01	107.5	-48	7.23	22.92	-8.01	42.44
4	<del>3.19</del> 3.19	31.5	-24.5	9.76	22.12	-10.96	41.10
3	<del>6.79</del>	<del>37.5</del> 3	-4	11.44	24.49	-12.29	48.01
2	2.53	-	-90	11.27	29.46	-12.72	14.28
1	2.88	69	-12	11.27	22.46	-16.25	14.28
0				16.92	20.10	-17.52	16.05

O = PSS in small rock-d in rift above <sup>final</sup> ~~day~~ down to stream

O	3.15	-	-90	<del>16.92</del>			
A	15	230	<del>12</del> +2	16.92	30.10	-20.67	16.05
B				5.44	20.46	-20.15	17.04
A	3	050	-2				
C				19.22	32.03	-20.77	17.05
O	4	050	-				
D				19.98	32.67	-17.52	60.05

Too Tight R.H. AT C+D.

CAN III PITCH (CLUSTER ROCK) x

				1	2	C-G
14 (PSS)	<del>11.75</del> 11.75	331	+71	17.13	9.67	-6.39
15 (R81)	23.52	<del>341</del>	+87	14.64	14.15	9.50
16 (R82)	4.72	032	+63	14.32	11.36	32.39
17 (Trapball)	4.55	052	-38	11.46	17.18	36.59
18 (Spanish (L.H.))				13.28	19.39	33.79



B21

SURFACE SURVEY

CAN I  $\Rightarrow$  CAN III

	TABE	COMPASS	CLINO	$\alpha$ (G)	$\gamma$ (H)	ZS	CC
0 (Can 1 Kink)	4	30	130	0	0	0	0
1	25.3	345	0	173	3	2	8.46
2	25.6	300	-28	-4.82	27.44	2	28.76
3	6.7	324	-30	-24.09	38.74	-10.02	17.37
4	1.1	225	-90	-27.8	43.4	-13.4	17.17
5	1.1	213	-90	-27.8	43.43	-14.47	17.17

$\therefore$  CAN III ENTRANCE is 22m W, 43m N + 15m below CAN I

NB CAN III MAIN SHAFT SPANISH END = 70m E + 5m N + 209 dep.  
 " " " " = 52m E + 48m N + 225m dep  
 relative to CAN I ENTRANCE.

NB 2 CAN I SPANISH END = 40m E + 90m N + 195 dep.  
 RISING SUMPS AT AT = 47m E + 140m N + 220 dep.  
 + T<sub>1</sub> rising Sump AT = 70m E + 170m N + 227 dep.

F118



R41 Pozo Peter Bears Pechtunch. JC+AW  
 = Find (the Ice Spider) + Chamber with Ice Cde.

O = Point in Middle of line with goal around view.

	TAPZ	COMPASS	CLINO
O	10	132	-28
A			
B	17	92	-27
C	16	22	-6
1 (from position)	5	282	+6
2	? 45-50	-	+90
3	16.4	219	+55

\* !! \* BASTARD KNOWS I TRIED TO MEASURE PITCH  
 WHEN GYM CAME UNDONE DURING PITCH ESTIMATION  
 AS 45 -> 50 - leg.

date	cave	who	left	ETB	cellout
11/8/77	DT	Rob NOM	1pm	8pm	midnight



B223 *end*

11/8/97 Canaligos Parrallel Shagt sump by pass

Surrey Ben Loret - Book Rhy William - Inst Set 4

	Time	Compass	Climo	X	Y	Z	EE	
1.	11:00	256	+7	0	0	0	0	1
2	3:50	274		-6.42	-8.83	1.34	10.92	2
3			+33	-9.35	-8.63	3.25	13.85	3
4	4:22	225	-40	-11.63	-10.91	0.53	17.09	4
5	3:14	213	+5	-13.34	-13.54	0.81	20.21	5
6	2:11	197	+46	-13.76	-14.94	2.33	21.68	6
7	6:02	224	+10	-17.88	-19.20	3.37	27.61	7
8	<del>11:55</del>	<del>124</del>	<del>-74</del>	-17.52	-19.44	1.88	28.04	8
9	<del>18:00</del>	<del>-</del>	<del>+90</del>	-17.53	-19.44	19.88	28.04	9
10	13:85	222	+21	-26.18	-29.05	24.84	40.97	10
11	3:04	251	-37	-28.48	-29.84	23.01	43.39	11
12	12:72	168	+30	-26.18	-40.62	29.37	54.41	12
13	8:22	225	+11	-31.89	-46.32	30.94	62.48	13
14	10:27	208	-31	-36.02	-54.10	25.65	71.28	14
15	10:09	112	-5	-26.70	-52.86	24.77	81.33	15
16	2:35	-	+90	-26.70	-52.86	27.12	81.33	16
17	2:6	164	-2	-25.99	-60.36	27.03	83.93	17
18	2:58	199	-40	-26.63	-62.22	25.38	85.91	18
19	8:4	128	-24	-20.58	-66.95	21.95	93.58	19
20	8:15	040	+4	-15.36	-60.72	22.53	101.71	20
21	8:88	067	-11	-7.33	-57.32	20.83	110.43	21

Station 1 = L.O.E at head of 25m (Est) Pitch

Station 19 = Spanish Passage

Station 20 & 21 are along the known rig to enable this to be orientated on the Spanish survey