OU Cave Club

1984 Expda

Area Log

Oxford University Cave Club

La Verdelluenga 1984

Ario Log Book

Monday 17th July

Dave and Vkey set out for 12/5 without gear as due to mist it was thought that the entrance might be difficult to find. This turned out to be true and the entrance remained undiscovered until 1-30 pm when it was found only after much searching a consultation of maps. This meant that the cave wasn't descended until about 2-30. A 5m entrance ladder was rigged from a chossy natural belay and descended. The second ladder pitch was rigged using the better of two rotten bolts this ladder pitch needs a line if using tackle, as Vkey found out on descending it. The squeeze above the 8 second drop is reached by descending down two short climbs in the rift from the bottom of the ladder. The squeeze was pondered and Dave looked possible. So two bolts were hammered in and a 20m rope hung down the pitch to the 1st visible ledge. Then Vkey squeezed her way down, and managed to get well and truly stuck. Four hours later and 4 inches removed from the right hand wall at the top and Vkey made a second attempt. No success. After a further hammering & another attempt at the squeeze the cave was left for the day. On arrival at Arco we were greeted by

a starving Sgt Graham & Silvia who had just spent 3 days Cares Large (on 1 day food) fortunately the inestimable Fred had brought us some food during the day (We had been resigned to surviving on 2 tins of pilchards!) So we had pilchard vindaloo and beer at Ario

Tuesday 18th July

Up early to go caving unfortunately breakfast was locked in the Refugio which didn't open until 10 o'clock. So didn't get below ground before 1 o'clock. Hammered away at the squeeze for hours with little effect Both of us made attempts at passing the squeeze, unsuccessfully, but not much more to do. We gave up at 5-30 due to boredom

Thursday 20th July

Dave and Steve arrived at Ario at 8-45 PM, had a look at the entrance and decided to postpone my descent until next morning

Friday 21st July Stephen G., Dave H.

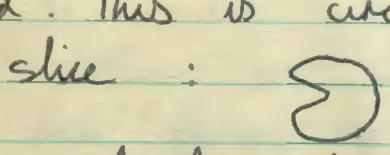
Reached 12/5 about 1100. I went on to hammer at the rift, while Dave rigged a rope on the second pitch. I managed to trim back some rock from the fissure, but eventually the hammerable fracture lines had all been bashed and we had to start on the fresh rock (wonderful, coarsely crystalline stuff, dammit!). Taking it in turns to bash away with just a short break to climb around the higher levels of the entrance series (where there are several formations, impressive by Picos standards), we eventually enlarged the rift sufficiently for Dave (the thinner member) to insert himself. With some forcing, he managed to get past the tight point of the rift. However, since he would not have been able to reverse the manoeuvre had he proceeded any further, he came out to allow us to hammer away some more rock. The rift is now possable, though, at the moment, returning might be something of an epic. Another day's hammering might sort things out. By the way, the second

pitch is 10-12 m rather than the 15 m given in Proc. O.U.C.C. 10, p. 28. Left the cave about 1845 due to fear of onset of terminal arthritis in hammering hand.

Sunday 22nd July — Ian + Sean

After walking up from Base Camp, the thin man team finally arrived at 12/5. This heroic team comprised Sean and the not-so thin Ian. After a slight delay in finding the cave, we arrived at 'the crack'. It definitely looked feasible so I (Ian) re-rigged the squeeze from the flowstone above using a very long wire, so the rope extended right out of the squeeze and up the cliff. We spent a minimal amount of time hammering, and then Sean prepared for the descent. He got down with no trouble, using cord tied round his central maillon to raise his descender 3' to well away from his body. He then continued down the main pitch, contriving a well placed flake belay backed up by one of the squeeze bolts (we found a use for them in the end!) I waited at the head of the cracks, to assist Sean with any problems he might have on the return. Sean continues the tale...

With great interest in the cave (well, I might have to spend the rest of my life here!) I went down the

pitch I had rigged. This is circular in plan with a projecting slice :  - no, not a Pacman. At the bottom of this flat sided shaft which is about 40m depth, there is a level debris-covered floor. On the far side a small hole leads, by a couple of short climbs, down to a small chamber. All this time Ian was sitting at the crack feeling jealous...

There are two ways on at this point. One gets too tight and bouldery. The other descends via a mass of flowstone pretties down a cylindrical shaft and evidently continues.

The shaft (40m) I named The Oasthouse and the chamber beyond Eileen's Waiting Room. (Explanations on application!)

I pussied back up to the crack to make my escape bid. I passed my helmet and generator through, then tried to proceed, only to have my chest ascender jam - then it wouldn't unclip; and so I was stuck. At this point I nearly panicked - claustrophobia sets in, goodbye mummy...!!

Then I got my chest ascender undone and retreated. Escape bid ②. This involved the chest ascender being on an extended cord somewhere

above my head. This worked perfectly and I got out with no trouble at all!

Then the (fractionally) larger Ian had a go. After a couple of fitting sessions in the hole, and alterations to it with the hammer, he succeeded in wiggling through. Then we both set about it with hammers.

Ian tried to climb out with a similar system of ascenders to me. After a lot of struggling and gesturing he got his head and shoulders through. The effect was rather like seeing a grown man trying to climb out of a milkbottle. He sounded much calmer than I was - huh! Confidence prevails so he escapes. We live to cave another day and so back to the horrible, flyridden Aria camp.

We then had a good, though overlarge meal for 4!, due to Sean's inaccurate measurement. We eventually managed it all, split 2½ / 1½. Cows troubled us during the meal. Probably the ones that damaged the Gear tent. We hid the fresh food in an inaccessible rock.

PS The Aria Max/Min thermometer appears to

have been stolen. It was not in its previous spot and its shelter has been demolished. Hence no readings. We've made substantial repairs to the gear bert, by the way.

Monday 23rd July Ian + Sean again

Today we set out to do some proper pushing in 12/5. We both passed the squeeze without too much trouble, and reached the bottom of the Oasthouse. Ian had a look round the bits I had seen yesterday and then rigged a line down the short pitch I had stopped at. The amount of interesting formations increased, until at the bottom we were in a chamber filled with flowstone fragments and with an entire wall of layered gravel deposits. Via some very broken rock climbs and squeezy bits we found the tops of three shafts (all apparently linked). At this point Ian and I were feeling rather tired and apathetic for some reason, so we ate our food. Ian rigged the easiest pitch on a dubious belay, and this gave a superb hang.

At the bottom of this pitch the cave started to open up. The way on was by a classic vadose canyon, which gradually

acquired a small stream. We kept following this, apathy vanishing by the second. After a few tricky climbs and small waterfalls we came to a large chamber at about 4m up. We thought that was it, as we were out of rigging gear, but I (Sean) found a way down (Due to rampant exploration fever!). The streamway continued through a varied selection of passages until eventually Tone, and a very tricky climb formed us both.

The way out was difficult in places (it is easier to climb down than up!) but straightforward. The same was true for the complicated procedure needed to get up through the squeeze. (This entails me climbing through it in the dark, then having my helmet sent up) We emerged in the mist having had, we felt, a very successful pushing trip.

Total Time out from where we got to: 18·05 → 20·42 (2 hrs 37 mins) Est depth below 'Crack' at least 100m. Horizontal passage ~ 200m. The winding nature of the passage, jagged bits, pools etc will make surveying a long job.

A really enjoyable trip.

Tuesday 24th July . 8am
Left for Base camp.

[illegible] finding Nicola had beaten him by an hour from [illegible] excuses: thick cloud, long (safer in mist) way round, bad [illegible] down by Hav. Riley's school of physical fitness.
[illegible] to cave today - bad knees being the [illegible]
[illegible] Set off out + packed for the morrow, leisurely large meal. Fine [illegible] (~20.20). Massaged knees etc.

WED. 25 JULY.

Up early at 07-15. Breakfast. Nicola goes off to take met. readings. Nicola comes back. We both go to take met. readings, find raingauge but NOT thermometer. Since we are unlikely to find it tomorrow someone else must take the readings or come + show us where it is. So much for early start. Leave for cave at 10.30!

Booted again. Spent 50 minutes looking for 12/5, both of us were certain it was by the Y signpost (it isn't). Felt depressed so went back to camp for lunch + hot tea to prepare us for mega epic ahead .... its going to be one of those days!

You wassocks! [Finish schooling?] Mike & I have gone to try to find the thermometre & if we do we will reset it & leave note there to say so, but not bother taking readings as it is now 20.55 Weds.

(10)

Still WEDS. 25 July. Philip + Nicola

Got underground at 14.20, out at 00.50. WHAT A CAVE! Sean + Ian mentioned various things about it but not the geological exoticism it is! Stalagtites 4" in diameter in gravel, mud layers on top, then flowstone. Epic ... re-dissolving flowstone, clear traces of many different ... at the bottom, GREEN stalagtites + flowstone (copper ...) They weren't bullshitting about the squeeze though.

We rigged a ladder (apathingy) on Sean's ... streamway, bypassing the 4m drop from window into chamber ... found. Also rigged rope on rubble slope + 5m drop. ... found what could be a cairn but couldn't see how the others ... have got there without rigging it. Left tackle bag with ... wires & 15m rope at top of that slope. Then lots + lots of ... streamway in vadose canyons blocked with rubble + flowstone. ... always a way through at stream level. Multiple light ... so we went out leaving tackle bag with 70m (8mm) rope + 40m rope in (bit reminiscent of a spikey bost Johns the roof traverse. P. took 2 goes at getting out of squeeze and frightened himself (take off harness), N. got out first try.

Got a little bit lost on way back in starlight ... and so to bed.

Lots of gear down the cave as well as what we brought.

Thoughts about caves geological interest ... echoed by Nicola ... spent much of the trip ogling at green rock beds as well as the ...

[illegible] black crumbly magnetite / haematite? and some amazing mud [illegible] in the passageways at the bottom of the last pitch in the Squeeze ... tiny pebbles perched on pillars of mud above the [illegible] Surveying should be a very interesting task cos [illegible] passageways leading off to subsidiary chambers [illegible] although such a network did confuse the discovery of 'confluence of 2 canyons to form 3rd. P.' [illegible] canyon' at the bottom of the last entrance pitch! [illegible] next to the rope .... ignore the two bigger [illegible] further away) Plenty of water down for carbides but (got them wet in one of the inlets.) [illegible] too much to make life miserable. A warm cave as [illegible] generally brilliant in interest and enjoyable. The feeling of relief [illegible] get through the squeeze is unbelievable!!! (Its worth the hammering Ukey.... thanks!) Some nice climbs too.

[illegible] underground :- 10 hrs 30 mins. Felt v. justified eating masses of Stewed [illegible] Bowgenlon by starlight on return!

SQUEEZE HINT #37, ta[illegible] [illegible]rator, ascend an electric with loose chin strap. [illegible] own helmet through (4 only to [illegible] even if you are the 1st person up) then climb yourself. At this point ~~it it~~ it is recommended that you arrange for [illegible] not to come off and for your glass in your electric not to fall [illegible].

(12)

26 July 1984

Well done, 12/5 sounds tremendous from your description above. You are obviously in the right place as F7 has "battered", and correctly, has linked in with F2 to the Sistema Jorcada Blanca. We are [illegible] out dye detectors prior to our magnetometry, photo, survey, water trace and detailed F7. Don't worry, though, there will be plenty of time for you both to bolt it if you wish. We could also dye trace 12/5 if you think it worthwhile.

I shall deal with the points on your note and try to get things [illegible] by this evening. Good luck.

EL Jefe

26 July 1984 Ian

And now ... to explain how the trick was done. The thermometer cannot be found by any of the audience because it has been, by the way, broken, and removed to basecamp by

[illegible]'s assistants who work under cover of a convenient [illegible] fog. Less miraculously, the thermometer reappears [illegible] of being placed there by me at 18:20 26/7/84. [illegible] thermometer is now cairned, is on a bearing of 232° [illegible] rain gauge, and ~25m away. It is [illegible] side of the valley, looking up, about 8m from [illegible] valley, and 2m from the centre line of the [illegible] When you find it (it is now pretty obvious), behind its [illegible], take care removing it as it is not very secure [illegible].

[illegible] verily 12/5 is a friendly cave. I say unto you, ye for the carbide mark on the RH wall above a 10m climb, and ye shall find the limit of [illegible]'s exploration. Verily I have also brought you food, and most of the [illegible] you requested. Unfortunately [illegible] bring [illegible], cos the sods drove off with it [illegible] morning. If you feel OK, I see no reason why [illegible] keep caving, by the way.

I could only bring a little sugar (the van drove off [illegible] have no krabs at base (the expedition owns very [illegible] should be able to use maillons (I know there [illegible] or so in the cave) for all but deviations however. [illegible] you haven't done so already, please re-rig the pitch [illegible] crack — the rubs are quite serious I think. One [illegible] entrance ladder pitch ropes seemed quite worn at one spot also.

c/u, Ian

Still couldn't find the thermometer. Not surprising really considering it had been moved as we later discovered.

(14)

The 26th July:-

Our original plans of an early start disintegrated after our mega late arrival last night and so it was gone 2 before we actually got underground. Passed the squeeze with little hassle and on to the window in the chamber Sean & Ian had found. Rerigged the ladder into this chamber (accessible along a gravelly passage less uncomfortable now following a quick hammering session from Phil) and then on to the boulder choke slope and drop. Yesterday for speed and safety we rigged an rope over this but reckoning Sean & Ian must have found an alternative way down cos they hadn't used ropes, I went down and then worked backwards finding a free climb through the boulder choke which brings you out halfway up. Although the scrabble up the last half of this is free climable its very loose and so we've put a hand line down. Might be an idea for a later party as SRT gear with more gear to re-rig this with a non SRT rope ~~otherwise~~ the only stuff we had with us? Slight disappointment further on when we discovered Sean's initials & some rock/mud ... what we thought we were the first people along yesterday had been discovered already by the original Thin Man Team! The passageway is sloped through:- arches and doors through thin sections of crumbly rock, short climbs up and down waterfalls and then eventually a 10 m or so drop into a pool down which we rigged a ladder. Through an enormous chamber and up a pile of boulders and rubble (look up at the ceiling ..... and try not to think of earth tremors etc ...!) and then a fairly big pitch. Put two bolts in at the top of this and Phil rigged a very nice free hanging rope from here using a Y hang. ~~[illegible]~~ with the largest rope we had .. 70 m lightweight. Abseiling down this brings you to a lower level from where there is another pitch (wet!) so we rebelayed the 70 m rope using a bolt to give a free hang straight down the next pitch past a ledge on which there are some more

Called this big pitch the Armadillo,

mud formations etc.. Unfortunately the rope doesn't quite reach the bottom (as Phil found out!) and as we'd run out of gear, time and Yorkie bars we headed back.

Wise to the ways of the squeeze getting through was far less daunting and difficult than our original contortions and without getting lost on our return this time (!) we were back at camp without much delay..... a good job considering how long we'd been underground! Stewed Steak Chasseur by starlight with all sorts of goodies which Santa Claus had left whilst we'd been gravelling around below rounded off an enjoyable, if long (!) day. Tommorrows push... beyond the 70 m pitch.....

Time underground :- 2·30 pm → 2·00 am. So much for being back before dark.

Friday 27th July :-

Awoken by the clattering of ~~**~~ goat bells at some Godforsaken hour of the morning (after crashing out at 3·30 am anytime is Godforsaken!) Friday dawned with brilliant sunshine and clear skies, goats, flies and aching bodies. I was treated to lemon tea in bed (the luxury..) before Phil enthusiastically trogged off to Lagos for more equipment and a bolting set to rerig the first long rope pitch as advised by Ian in his note to us (our bolting kit is at the limit of exploration at the far end of the cave) whilst I, not quite so enthusiastically, dragged myself up for the strenous task of treating the cooking stuff to its first taste of washing up liquid. I think somehow I got the easier job there.....! Sean appeared at about 1·00 to drop some veg and collect his caving gear which has been festering in a corner of the store tent for a few days now before disappearing over the horizon towards Top Camp bound

for a surveying trip. Now 2:30 pm and no sign as yet of Phil.....

—

Phil arrived at 5:10 pm and ~~was~~ suffering from excessive sun exposure retired to the tent for 40 winks..... Apparently we were supposed to go down to Base Camp today which we didn't realise - we'd been following his statement about keeping caving which we thought was a suggestion from El Jefe. Never mind... such is life. Silvia & Graham appeared around 6 on their way to Top Camp to collect caving gear & return here and as no-one was down 12/5 we thought we might as well go caving while we were here... 40 winks later (well, 2½ hrs actually but!) and the Aricia camp was again roused into the ritual packing of rucsacks, harnesses etc... before venturing into the unknown. Aiming to get down the cave by 9:30 pm; rerig first rope pitch after the squeeze (will probably take a while cos of bolting...) and then change lightweight rope on yesterdays last pitch with a long 80 m proper SRT rope which this time we hope will reach... ! Hope to be out sometime early tomorrow morning after which its back down to Base Camp.

—

Feeling very peeved off. Buggered up bolt driver putting bolts in on first rope pitch to rerig it - dubious belay on this very dubious - it had been worked loose somehow. Well worth rerigging if you've bolt driver isn't buggered. Phil feeling "mentally tired" and complaining of backache in his shoulders (?!) and initiated a retreat. Back up the ~~squeeze~~ on which I did worse this time than ever before... and so back to Aricia. Feeling cheated of things ~~did~~ so was nice surprise to find Silvia &

Carahan had left us a concave mix. Very nice even after a ridiculously short trip.
Crashed into a pit ready for departure to Base Camp tomorrow morning
time underground 3 3/4 hour

Tackle in cave 1) 80m SRT rope on ledge after squeeze
4 ropes .. .. .
Yellow tackle bag .. .. ..
Ladder

Sorry - didn't see the kill retreat one day and hence not in a bag.

2) Mions and Hangers at very bottom of last rope in entrace series.
(Vadose canyon bit)
CARBIDE DUMP BY STREAM AFTER RAMP CLIMB. (before)

3) Yellow tackle bag containing as far as we can remember
20m rope
25m rope
10m rope ... on a ledge in streamway after rope climb + free climb down boulder slope (after carbide dump)

not in bag cos using bag as rope protector.

4) On halfway rebelay ledge down the Armadillo —
3 wire belays
Milk bottle containing a couple of bolts etc. -
Bolt driver + hammer

Desperately needed .. ROPE PROTECTORS !!!
Recommended .. take down a supply of bolts, hangers, wedges etc to add to declining milk bottle supply.

Good luck to the next pushers. Its a really enjoyable cave. Hope it goes further!

(18)

SATURDAY 28 JULY

Arose leisurely at 9-30, G. went off to take met. readings & couldn't even find rain gauge - my mistake, I should have gone too. B'fast somewhat delayed by queue of the Kettering & at the water pipe. Nicola goes down to Lagos feeling the call of duty for some base-camp-minding. I take G. & S. & show them 12/5, take lots of pictures of them walking, changing, going underground. Went did had a look at 13/5 50m downslope of 12/5, heading right, needs 15' ladder - could be checked out by "borrowing" the 1st ladder in 12/5?

I sat at top of 1st entrance ladder & waited, listening to noises of people preparing to go through The Nest. Eventually, Graham's voice faded, as after a bit, Silvia's chirrups + squeaks of interrogative disbelief (rhetorical I imagine) faded also - so they were below Pissed As A Newt by 12-45. Bit stiff as I climbed out (Old Trouble).

I returned to camp, packed up, fetched water, some wood etc and will return to base with rubbish.

How about a ~~name~~ name for 12/5 now? Any good ideas? Cueva del Stalagtitos Verdos?

Going down now (14-30) Why do I always do this in the heat of the day??

(NB) Size 10 wellies here are spare I brought them up by mistake.

Philip S.

(Felipe Serjente)

Saturday Pushing 12/5 Silvia & Graham

Well we didn't have any trouble finding the cave (possibly because we were kindly escorted by previous writer) Nor however did we or rather he (G) have any trouble finding our way back in the dark, though on our previous performance it's perhaps surprising we didn't try to find our way down the Trea Path into the gorge The changing area is a veritable sun trap which makes descending into the cool of the cave a pleasure. It might also explain why Graham chose to stand around in a state of nature long enough for Phil to take Photos of him. My squeaks + chirrups were more accurately oaths of disgust as I got stuck in the squeeze or at least my helmet did, burning my glove on the carbide flame when I tried to remove. Graham of course had no problem 'just a bit tricky that's all' he said in his encouraging way.

Graham then sat around a lot in various situations while I pottered around in various others. As the bolt driver had wrecked Graham's mole grips rather than Graham's mole grips getting the wedge out of the bolt driver we had to leave the unnamed pitch (40 m) as it was, except for a deviation, with a tape from the one bolt Phil had put in to try to bring the rope out from the wall. After driving at the 80? m Armadillo Pitch

* This pitch is now called The Shaven Hedgehog.

(20)

Graham disappeared over the edge with a 90m rope and I sat at the top worrying about him. I decided eating peanuts was more constructive. There was much noise from below, which turned out to have been Graham fixing possible belay points "some wellie" This unfortunately resulted in all the possibilities falling off, except for one which he couldn't get in a good position to kick at it, This was used for a deviation. This pitch is in a large shaft which ends in a puddle. There is then a short length of wonderful passage way, marbled black and white floor. Also very sculptured but I don't suppose much of that will last for long. This short twisty bit of passage leads to another pitch * - with a beautiful free hang and incredibly easy take off (I was paid for that bit - but I have to agree.) Then lots more passage, which one weaves along attempting unsuccessfully to miss the projections (Note Route finding straightforward - follow stream except where there's a plete where you turn off to the left down a dry muddy tube - rather than follow the water which would involve lying flat to through The Hole in the Wall - and so on until we came to climb which was felt to need a hand line

or ladder and we were running out of carbide. All tackle now at this climb.

Way out punctuated by carbide, fish and Yorkie stops and me getting very tired and hysterical, consequently I made a loud fuss about the Neut (squeeze), although probably in no difficulty at all. Then back to camp to find Nicola back - had made dinner. Woke her up and made her some tea in return. Then gazed at shooting stars and went to bed at 3.

Sunday. 29 JULY.

As then Late start - Are going to rebolt 40cm (OASTHOUSE) pitch, should be out sometime this evening. The squeeze is getting easier - on the way down anyway. One positively slides down!

We decided to put a bolt in the Oasthouse, a bit further round the corner from Phil's so as to give a freer hang. The rope protector is thus now redundant, ~~at the~~ although it might be of use further down. My first attempt with the bolt was a failure, as I was so nervous about sitting on my crevtails that my hand shook too much to hold the bolt driver firm and ~~he~~ I made rather too large a hole. This was despite being attached by a variety

devices to a variety of ropes in an attempt to make me feel safe. By the time the bolt driver and the hammer had been attached by tapes we had a veritable spaghetti junction - which made getting on and off slightly more long winded than it need be. Anyway Graham started it off and I continued wishing I had a good documentary to listen to. I contented myself with uttering to Graham who periodically attempted not to have to listen to me by aiming pieces of chocolate at my oft-open mouth. It should have been grapes, far more sensuous, but they would have suffered in the squeeze.
We emerged from our arduous trip ~~to~~ to munch peanuts in the entrance ~~and the decide caving caves were a go~~ Nearly decided to go back it was so hot outside. The squeeze was completed with the greatest of ease by Graham and less ~~with~~ by me - as 1st I forgot to put my Footloop on and had to reverse, then it fell off and I had to be reverse again. Finally I got through but was convinced I was stuck, at which point Graham lifted me up from the middle to prove I wasn't. I was forced reluctantly to agree that he was right as usual.

"Love! Hah! Hah!" quote from guess who.

22-00 Phil's + Dave H. leave Lagos after a quick meal. Bit of a mistake as we forgot to bring a light and it was overcast and very very dark. Got to Aria at 00·30 and crashed after walking G. + S.

MONDAY 30 JULY 1984

Sat out Phil's

Overcast - higher than the peaks. Leisurely breakfast for G., later joined by Steve Roberts + Dave Rose (who went to the Refugio first and so their tea got cold - bummer) Much discussion of arrangements for the day. Graham + Dave had gone to top camp to collect caving gear (Dave) + things (G.) All had chilli lunch with most of it going down Phil's + Dave since we were to push 12/5. Took us 55 minutes to get from the surface to the other side of the Went (and to be fully kitted up for descent), Dave made a bit of a meal of the squeeze + tried to make a generator-shaped dent in his face - who can say, it might have improved his looks? - but I freed it for him. Then we scurried off at the bottom of the Oast House (admiring G.'s re-rig, and putting on two rope protectors on the way ....) to get out of the way of the large chunks of rock (dust) being thrown down the pitch by the Heavy Mob (Steve + Dave Rose) who were Hammering the Went. On exciting many hours later we noticed a few scuff marks on the rope.

And so on down the ropes carrying a tackle bag with 30m rope, various MRs, hangers, a couple of tapes at

a ladder. Into the rodox cavern, down the streamway pitch + the lined slope, jettled stinky at carbide dump at the bottom of the climb below the lined slope. The rest of the upper streamway ad second streamway ladder pitch, then up the rubble slope to the top of the Armadillo. My (ad Dave's) first complete descent!

Dave went first ad then I followed ad made a complete ballsup of the deviation since I was carrying the tackle back + my long thin tape donkey's dick was playing games. At least it's dry at the deviation (Thanks Graham).

So glad to be free of the ~~easy~~ mess I whizzed down + forgot about the tackle bag. It zapped straight into the deep pool ad I grabbed it out, steaming ad hissing: the carbide mannyflakes can had opened, suddenly EXPLOSION 1 as the C_2H_2 ignited + trimmed my eyebrows.

I dragged the bag somewhere dry with yellow flames shooting out of the top. I undid the top (great gloves, the Gloverlies ® I recommend them to all my friends) ad patted out the flames. [At Dave's suggestion I changed to electric light. Then I picked up the bag to empty it out ad when EXPLOSION 2 and Dave had fewer eyebrows than before (or is it less eyebrows?) This time everything was sorted out ad the slightly scorched tapes were put back in the bag but the carbide

was left to steam gently (it was cleaned up on our return) so there is now a (small) carbide dump down on the left, near floor level, just round the corner from the bottom of the Armadillo.

Onward! Down the lower streamway and the Shaven Hedgehog (15m), the only smoothe part of the whole length. Very gribbly with lots of brown excrescences poking you in the gut. Dave suggested that Graham should have named it Kung Fu passage since these could be broken off with well directed Dunlop size 7s.

The rock of the lower streamway (apart from the excrescences) is White-Calcite-veined dark (greenish-black) limestone, very like the marble showers in OFD 2, but with more calcite.

We came to St 6's tackle bag and the climb they didn't attempt. It is free-climbable to next one (about 20' away) isn't, so we laddered it INTO DEEP POOL. Then another chamber/bit of passage of about 30' and another steep climb, put a bolt in and used our last ladder. Not very far from the bottom we found a 6m pitch but didn't feel like rigging it although we had all the gear. Left 2 tackle bags at the top of this pitch and ~~a ready-rig~~ one containing 70m of 8mm rope at the top of St 6's unclimbed climb. ~~We~~ We turned back at 20-10 after 5½ hrs 20 mins underground, and were ~~out~~ both out by 23-40, just less than a 9 hour trip. Philip got

NAMING NOTE ?
Lower Streamway ladder pitches: 1: Wet Pool Pitch.
2: ~~Dog Pool~~ Deep Pool Pitch. } must try harder. 2/10.

(26) very cold at points because he was soaked through.
The Caving Supplies ~~oversuit~~ oversuit is NO GOOD AT ALL for dripping pitches + climbing in streamways.

Points to note: Water in streamways was faster than before, up maybe 50-100%.
Draft was much stronger, noticable at the Nest at the top of the Armadillo and a few places in the upper streamway, must be where we are near the top of the passage.
Tried to find Nicola's suggested dig-bypass of the mud-slope and climb but no vocal connection established, but we were cold + tired so somebody else should make a more thorough attempt.
Inaugural trip of my FIRST PAIR of "DUNLOP WELLIES"!
I didn't notice them at all so they must be 'good'.

Back to campsite in our caving gear in thick mist by a direct route (ie. not on the path!) To discover that some bum has ripped off my blue KAYNITRO fertiliser bag I keep my clothes in! What is this place! Was it Fred taking my gear down in mistake for Graham's? Was it Steve or Dave R. borrowing it? How can we find out?
Don't miss next weeks exciting episode. (actually it was stuffed under a flysheet somewhere)
(NB) BE-GG Aven just after Shaven Hedgehog — Phil Jo S.
("Bloody Ell - Good God!")

TUESDAY 31 JULY 1984

Rained all night. Eventually dragged myself out of bed to Mayflakes + cocoa at the Refugio. A. lay tire later Dave joins me as I go to get Met. Reading, the water collector has blown over! Separate measments from bottle + from bucket. Temperate min is 12°C and that's what it reads now too.

Meet Sean + Phil D. trudging up to top camp, Phil with hair plastered to brow by mist + sweat. Sean tells of great storms and rippings of tents at Lagos, also the welcome news that Steve R. & Dave R. are bringing food & will bring it to Arico – also the AMAZING news that Steve got through the Neck. Back at the Refugio, Dave H. & I find this very hard to believe is dead.

NB. Sean suggested someone take a carpass down 12/5 to get a rough idea of where it is going – the Barge or Xiter. We have an old 5 pts bottle at camp what could be made into a carpass canteen?

Note Arico Spring is running like a tap today – must be rain runoff.

13-00 Having lunch, festering, mending gear + drying furries in short-lived spells of sunshine.

15-00 Leave camp for Lagos (Dave H. + Phillips S.).

(28)

1st August! (SGR)

Phil Sargent's Scottday today, so presumably he is 'hammered as a Newt' down at Legos. Narrowly escaping spending a night in jail* Dave B. and I came up last night with the heaviest carry I have ever done. Hope you appreciate the food.

Now we go (1pm) to bash at the Newt some more. I can just about get through (I think) at the cost of a few rips in my none-too-pristine Petzl suit. Dave Cait. We knocked quite a lot off yesterday, but it is hard & slow going. Even the best blows of the W.S. lump hammer shift a piece of rock about the size of a scab from an old and well-picked zit. Most loose only powder.

Will be back when bored with hammering 9pm?

We need: Rigging gear, esp. TAPES, rope protectors

A extra tent. A tarp for the ropes, etc.

* more details later.

Save Salt. Save squash or Quosix to render the water more appetising (using Ricard for this purpose at the moment). Scrubbing the cloths for washing up. More pots & pans & dishes.

+ (V. URGENT) PETROL!!

If anyone feels like cooking, there are some BEANS on to soak. OK?

1st August. 12/5. Steve + Dave R. 11 hrs, including the passage of the Newt.

Ok chaps. It can be done now by anyone. I, David Rose, the largest person on the expedition, have been through the dread squeeze of 12/5 ... and back — Admittedly on the return I took my Troll suit off but here I am again at Ario, feeling that I have been through two and back again. It's 1-50 am, noone else is about, and

(20)

Steve and I are just going to have some soup. But we feel GOOD.
Yes. 12/5 ☆ the business. 12/5 ☆ the works. 12/5 ☆ the big one we've all been looking for ever since Xitle. It's G-R-R-R-EAT!

The trip began with more hammering. Whether to any avail it's hard to say; anyhow, soon we'd had enough + Steve having already gone through to hammer from below I followed suit, pausing only to drop my helmet down the next 40m pitch.

Miraculously it was almost undamaged and we continued on our way, passing the various landmarks. (I HATE the dedication on the 60m — it's positively dangerous in the wrong hands and as I can't see the point until you're wet already.)

After some time we reached the table and the limit of

exploration, ~~impr~~ pierced deeply by all we saw ~~the~~ along the way. Some of the avens were quite superb; generally the cave is much more varied, in the Ario style, than the pots of Torcada Blanca. There must by now be at least 1km of passage.

Sorry Phil. We have a better name for your second ladder pitch — the FISHING POND, so called because SAR dropped a bag into it + amazingly enough retrieved it with a rack on 2 joined-together cows' tails.

The 6m pitch ~~as~~ described by Philip turned out to be about 25m, with a ledge 6m down. It is called CAMSHAFT. Beyond, a very pleasant, ~~broad~~ section of streamway, with fine marbling — reminiscent of Xitu below ~~[illegible]~~ ~~[illegible]~~ Pythagoras. It gets a bit narrower after 50m or so and soon leads to the next (25m) pitch — ~~[illegible]~~ GESELLSCHAFT. This is a bloody

(32)

nice drop. Below were 2 ~~easy~~ free climbs with dodgy rock, which we handlined. So, then, to the present terminus — the head of ~~[illegible]~~ THOMPSON'S GESBELLSCHAFT, a superb looking pitch of at least 50M, quite possibly 55 or 60. What ho!

We came out and reached the surface to a beautiful starry night at 1am, totally FUCKED. But a good time had been had by both.

SGR Addenda:

1) We thought some of the rigs in the earlier part of the cave were TOTAL ABORTIONS. It all needs tidying up. One in particular must be the worst ~~[illegible]~~ I've ever seen — the one after the slope with the line down it (why?).

2) The ^new^ entrance pitch ~~[illegible]~~ which drops through ~~[illegible]~~ a false floor has a beautiful formation just like an owl - about 3 feet high. I name this Owl's PITCH!

3) One boulder pitch which needs

crawling through choss to get to it has an alternative hang reachable at high level - Needs re-rigging.

4) The scaffolders clamps in the *** new bit *** I name ~~[illegible]~~ 'premature ejaculation climbs' - they keep coming off in your hand!

5) WOW! This is the big one!

2 AUGUST 1984

Phil arrived at 11.00, having been chased by a hangover all the way up the hill. [Nearly caught me on El Sod 2, but I didn't weaken] Arrived just in time for a large bean lunch. I brought some food + a couple gladdens.

DaveR, PhilS & Steve R go & pillage Top Camp.
Richard + Sarah ~~Sarah~~ come up.
DaveH & ~~Shane~~ SEAN + Mike B-L come up. We drink a lot + eat too much.

3 AUGUST '84

FOUL weather. Even the ducks are silent.
We prepare to go underground.
Dave R, Steve R & PhilS. go pushing.
Richard + Sarah + Dave H survey the entrance
Sean + Mike go re-rigging.

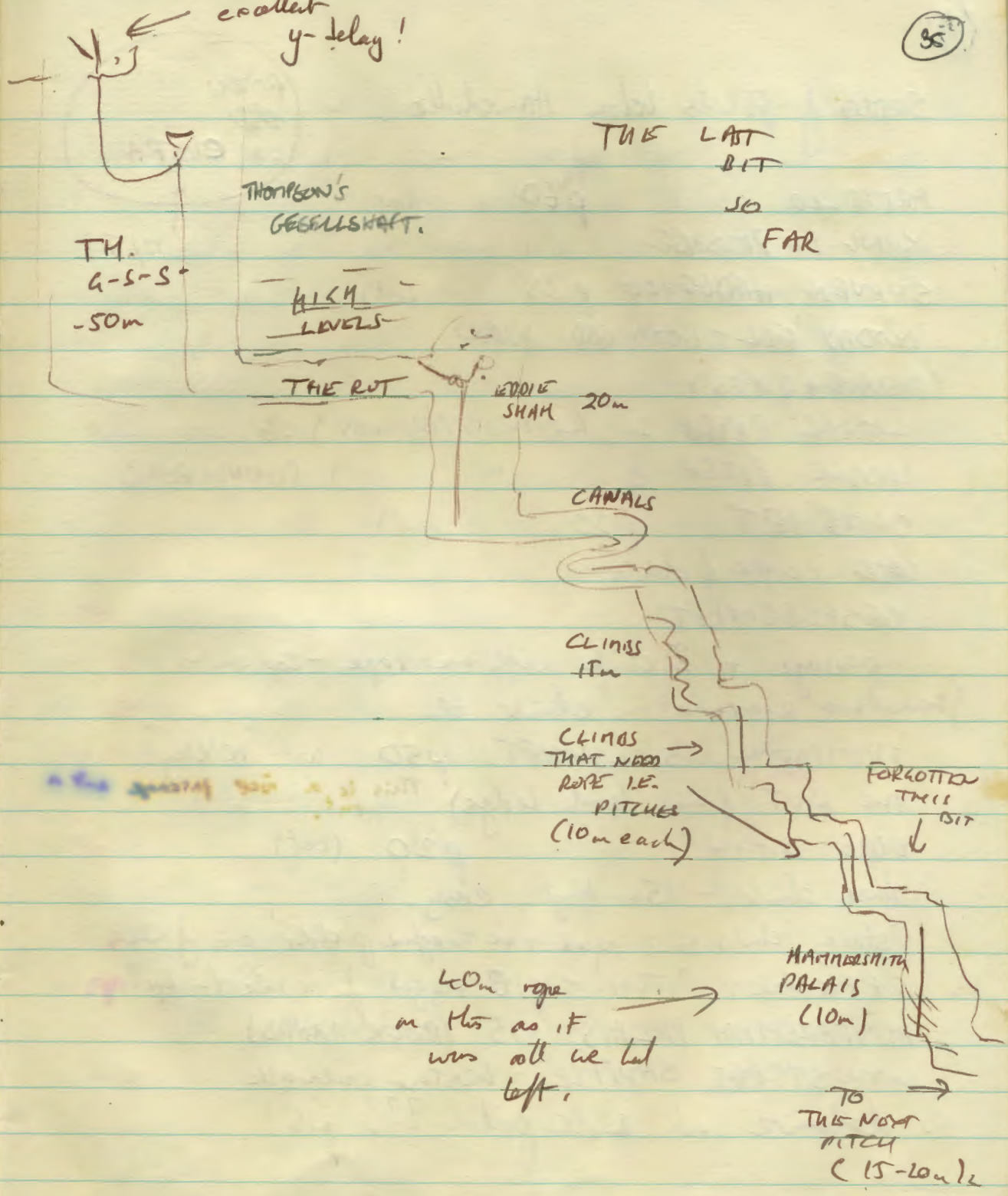
(38)

Sean and Mike reach 12/5 entrance with all gear for re-rigging trip, no trouble finding cave, only to have Sean's diarrhoea cause him to jack. Mike goes on for a brief tourist/hammering trip, while Sean wanders back to camp feeling very guilty at ballsing up trip. Sean stops feeling quite so guilty with stomach ache, severe shits, dehydration and nausea. Retires to bed.

sorry everyone but I wasn't feeling immensely heroic today. SPH

Dave, Steve & Philip have one of the best trips of their lives - rigging 5 pitches: Thompson's Gesellshaft, Eddie Shah (worn and a bit of a bastard) + 3 more, the last of which is called ~~Bas~~ HAMMERSMITH Palais because of the many great rock bands in it. Coming back every single one of them was wet, as was Gesellshaft, Camshaft and the S Laven Hedgehog and the Armadillo. We were wet. Very. It took us 5 hours to get out from the limit of exploration, without carrying anything. There is a RUB - cut to the core at the rope protector on Gesellshaft.

Beyond Hammersmith Palais, the stream gets back into the limestone (Hooray!) and descends via a twisting canyon (the WALL ST. SHUFFLE) to a 20m pitch, back in dolomite again.


excellent y-delay!
THE LAST BIT SO FAR
TH. G-S-S -50m
THOMPSON'S GESELLSCHAFT.
HIGH LEVELS
THE RUT
EDDIE SHAH 20m
CANALS
CLIMBS 11m
CLIMBS THAT NEED ROPE I.E. PITCHES (10m each)
FORGOTTEN THIS BIT
HAMMERSMITH PALAIS (10m)
40m rope on this as if was all we had left.
TO THE NEXT PITCH (15-20m)

(38)

Series of pitches below Armadillo: in

POZU ~~[illegible]~~ LA EISTRA

↑ 12/5.

ARMADILLO p60 (wet)
KUNG FU PASSAGE
SHAVEN HEDGEHOG p25 (wet)
BLOODY 'ELL - GOOD GOD AVEN
(PASSAGE + CLIMBS)
LADDER PITCH 1 (LOWER STREAMWAY) ~~[illegible]~~
LADDER PITCH 2 (") FISHING POND
CAMSHAFT p20 (wet)
~~[illegible]~~ couple of climbs
GESELLSHAFT
passage + 2 climbs with one rope - top one is 'premature ejaculation' climb then
THOMPSON'S GESELLSHAFT p50 with "rebelay"
THE ~~RUT~~ DEER RUN (high level ledges) This is a nice passage not a rut.
EDDIE SHAH p20 (wet)
free climb - 15m high. easy.
steady climbs ~~some~~ roped + one though 'pitches' one of which
is EFFICIENCY PITCH - p10 rigged for a wire + a tape loop.
HAMMERSMITH PALAIS p15 (ROCK BANDS)
WALL STREET SHUFFLE - kneestone crabwalk
→ dolomite and another pitch ??? p15?.

Philip + Steve.

Ian 4/8/84

Walked up from base to Top, meeting Dave R., Richard and Sarah, who gave me 'the story so far'. On to top, where the weather closed in. Packed gear; met Steve G. who was surface surveying in the rain + mist with Hilary. Walked to Aux meeting Martin Hicks. near Top Camp. Very cold walking (5°C at top camp at 11.00 and DECREASING!). Nicola, Phil R and Dave were getting ready for a survey trip. Since only Phil could read the clino, Nicola was assigned the Capt's log, and I showed her as best I could how surveying is done. Richard's notes on the survey so far looked a little sparse. Unfortunately, it appears that no fixed points were used as stations, but that the stations were taken as standing or sitting at various points. I hope this doesn't cause too many problems. Martin arrived from top shortly after the others left. It rained. I decided not to re-rig today but to start tomorrow, so fell asleep for 2+ hours. Was woken by John Hatch, who arrived with the team in heavy rain. Martin had left, having forgotten to bring his oversuit down from top. John waited for the rain to get really heavy, then left for the comfort of Base. Unfortunately, I now have to get up and cook for us all in the rain. It would be nice to be in the Refuge---

Oh well. I'll just put on another layer of TERMINAL underwear.

(38)

OOPS – Nicola I mean

Phil, Dave ~~Vex~~ 4th Aug Surveying Trip.

Despite peoples misgivings about the clino not being readable and then Ukey disappearing on a pushing trip with the instruments in her furry suit pocket (rescued in the end by Dave), the 2nd surveying trip of 12/5 finally got down el hole and without hassle reached the limit of surveying. Apart from nearly losing the one and only pencil (my fault I'm afraid) the surveying trip seemed to go OK – I can see why it takes so long though. How do the BCRA know you're telling the truth though? Chocolate and sardines at the top of the Armadillo marked the final reaches of Phils first trip down 12/5 (enthusiasm bounding everywhere for it) and Nicola's first surveying trip (with hindsight, far more fun than writing the lot up at the end). The following morning was spent cursing grotty pieces of sodden paper with scrofulous diagrams all over them and trying to make some coherency out of them. Now at least I understand them... problem is, does anyone else. Task not helped by having no rubber – a vital piece of surveying equipment (Also a spare pencil for underground?) Nice cave trip to end 3 weeks I've done brilliant caving on though. Hope everyone else enjoys their stay as much as I. See you all in October.

Nicola

(Just think – caving without hiccups from now on... Bliss!)

PS Ian – thanks for the loan of the Damart. It's at the back of the big Vango.
P.P.S. Phil R – You've got my helmet! Yours is in the entrance to the Vango tent minus battery box back. Mine I believe you must therefore have. It has a red + yellow sticker on the side. PLEASE can you take it down to Base Camp when you next go and put in the big orange Ableston

VERY IMPORTANT

↙ ↓ ↓ ↓ ↘

Waste Bag in which I'm leaving all my cave gear. Doubtless it'll get swallowed up into OUCC chaos otherwise! Can you make sure the Asbestos bag is tied up again afterwards to stop everything being lost (It must be your generator – I have mine)
Please could you drop it ~~in~~ the helmet! my Asbestos bag (in the green store tent at Base Camp) as soon as possible to avoid loss as I won't be collecting the stuff till October. (God what a festerous thought)

Hope the caving goes OK. See you in October

Nick

P.P.P.S. If All still around; all my gear is labelled red + yellow in case I've left any ... Very likely I should think! Could it be bunged in the asbestos bag? Thankyou.

See over for what really happened on this trip ↓ 5/8/84

The pseudo-rescue. SGR

At 3am ~~the~~ I was woken (just) by Sean, returning from a pushing trip with Uley + Mike. "Ah," I thought, "Uley back soon" ... at 6.30 I woke up again. Still out back. So I got up for a leak + tapped on Phil's tent to make sure I hadn't been hallucinating Sean's return. Then I woke up Sean, who, though incoherent, said he'd last heard Mike O sneeze and

(169)

the armadillo. Riley leapt around a lot & told me lots of stuff about people being overdue from Eita which I didn't really want to know, but nonetheless put on his clothes. Dave also got up. Dave & I got into our horribly damp cold furry suits & we all walked over to the cave. The plan was that Dave & I would go down to the squeeze, see if anybody was there: if not, Andy would go back, round up food & another party, and we would go in, find them, and 'take appropriate action'.

All this pointless as Mike & Okey were in the squeeze. Okey said unable to prusik on my system and Mike's light kept going wrong. Back in the fine early morning light.

Okey can write up her trip now, then I can write up the photo trip.

Phil R Fred + Phil D surveying

5th ??

Good surveying trip from the Armadillo down to before the oxbow below the Shaven Hedgehog. Very impressed by the lower shattering

with its olive green marbled lustre with grey black + brown chunks sticking out of the wall. Stagged away in BEGF awe in amazement for quite a while – exhaustion brought on by this caused us to stop for a substantial feed.

Saturday 4th / Sunday 5th
Mike, Sean & Ukey pushing.
We made slow progress down to Phil, Dave & Steve's limit of exploration despite carrying fairly small tackle bags. We found some naturals to rig the pitch that the previous lot had declared had no rigging points, and tagged on down. We had no short ropes and one rope protector so some of the rigs will have to be re-rigged (especially the Icing on the Cake, which Sean dropped a rock on and buggered the rope). The new stuff is: a short nameless pitch, followed by a nasty wet ladder pitch, followed by a very short pitch, the Icing on the Cake, so named because of the band of white stuff that curves out over the pitch head. Then there are some bouldery chambers which take you to what looks like an unrigged pitch, which you ignore and climb down in the rift instead. At the head of

the next pitch we realised simultaneously that it was 11.30 and that ~~we~~ we were running out of steam, so we headed out.

I don't know what Steve Roberts uses his prussik gear for, but I find it difficult to believe he uses it for prussiking. I at any rate was incapable of making it perform this function. I can't be bothered to relive the horrors of prussiking out from ≈ 550m in three-inch prussik steps; suffice it to say that it took a very long time and knackered me. Mike's light as usual wasn't working, so we made very slow progress indeed: the fact that I fell asleep on the Armadillo (right in the water) didn't help. Sean was nowhere to be seen.

Little did we know that Sean would get out four hours before us, causing general alarums and excursions at camp. This meant that we were met at the Newt by a rescue team (see SCR's write-up) whom we disappointed by not being injured or indeed having had any epics at all. Rather embarrassing. Still, the early morning sun in the Gorge almost made up for it.

16 hours (Sean) or 20 hours (Mike & Ubey)

Actually this was a pleasant trip, so never mind the whingeo.! It just took a long time.

* CARES, y'wassock!

~~SUNDAY 5th~~

Photo Trip   Martin & SteveR   Sunday 5th Aug

Photo'd in to the Armchair, where I looked up at the roof and wished I hadn't – the hanging death up there is worse than that you face (in which Phil S. attempted to put a bolt!) and that under your feet. Retreated quickly & ate mandarin oranges. Shot pics of various things, including the Newt, the mud ledge ladder, the Owl, Giraffe & Satyrs (in fact Phil & Winder's) Cascade Dump Streaming, etc. Martin lost one of the two cameras, leaving only the stereo one in use. Out to a magnificent scene: cloud mist & glowing sunset over the Caves*. Got mildly lost on the way back, nothing serious.

Re-rigging : Ian .   Sunday 5th.

Well, Ian!

Phil + Martin – Alternative walk to Top camp.

Started off down the Tram path to the edge of the gorge and then up Jultayan. Flanked by big sheer cliffs down the Cain we shot off rolls of film + then traversed the airy ridges towards La Vedekenga. This is the most superb walk I have ever done + we saw some impressive snow choked rifts on the way. Eventually, we traversed round the ridge by way of a complex airy climb we reached La Vorde Luenga + shouted down to get the brew put on in Top Cap. This was done + after refreshment filled our bags with tackle + ambled down to Ario.

Phil Rose: "I don't ~~really~~ know what a foreskin looks like". 6.8.84

Shame eh.

AND LATER, in a protesting tone, "I've seen plenty of blokes' willies in changing rooms".

Urey " + to Steve " You have a very abortive foreskin!"

AND LATER, in a proud tone, "Its said ~~Freedom~~ Roses have a pretty high sex drive you know".

Sean says anything the veins stand out on is chunky.

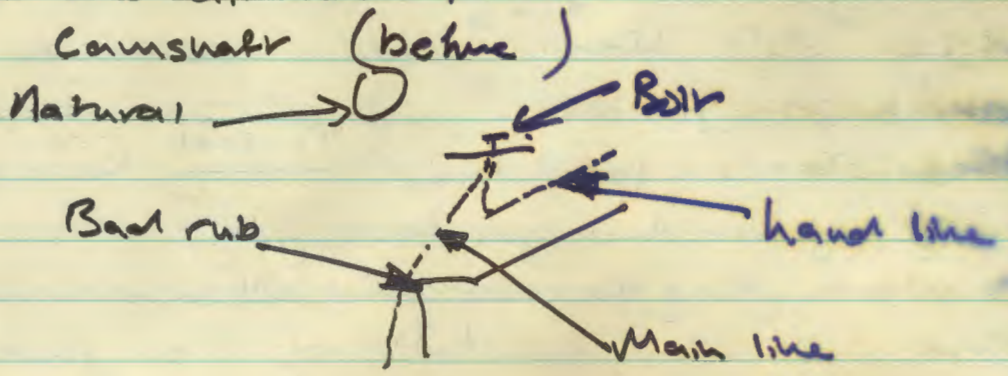
Steve " I was a bit of a jerk when I was fourteen " Roberts.

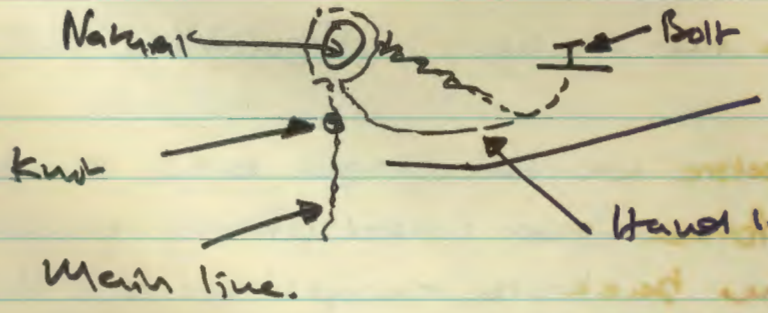
Friggins with the rigging Fred + Ian 6/8

Major balls up before we left. I got to the cave entrance and found that I had left my gloves behind so I ran back to camp. I couldn't find them so I borrowed some off Dave R. When I got back I realised that I had some gloves in the bottom of my rucksack. What a burke!

We got down to the bottom of the Armadillo. Ian said that he was very frightened by the rig, as the rope protector was wearing through.

We got down to Camshaft, went down the hand line, and found that there was a terrible rub. The rope protector was worn through so was halt the rope.





We rerigged the camshaft as I showed. As we didn't have enough rope on the main line we had to use the hand line then knot it. You don't have to pass the knot through.

upside down. So that the rub is at the bottom. (On the way out the handline was replaced.)

The next three pitches seemed to be rigged with the rope running over the lip with a stream flowing over it, so we rigged them on handlines.

A couple of pitches later we rigged a pitch with a ladder.

Unfortunately neither of us had read the log book. We got to a chamber with several ways out, but found the way. It ended in what looked like a handline. I started down, and realized that it was a very hard climb, so I came up. I climbed down another way, while Ian looked around at the top for tackle bags. I found the tackle bags at the top of another pitch.

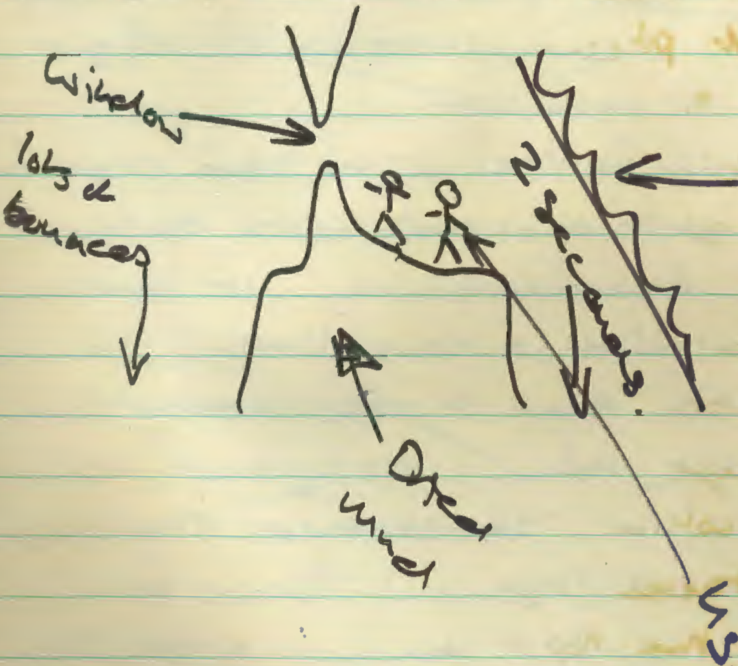
Ian came down and we started to rig it. We rigged a traverse line to a rock bridge then had a dry free hanged about 40m. We used a 40m rope for both traverse and hang.

At the bottom we got to another pitch.

6 August 1984. Stephen G, Phil S, Dave H. Short surveying trip. Surveyed upper levels above the Newt and then proceeded down to Tullways to survey the inlet passages. One of these, developed in fault breccia, defeated both Phil and Dave, so I, with longer legs (and smaller brain) lurched up it to

(48) the right hand wall was a sloping [illegible] good rock. The left was a [illegible] of sort of dried mud. ~~[illegible]~~

Further up the mud slope was a window through to a steep dried mud slope to a big pitch with lots of bounces. The drop on our side was 2 seconds



We started sticking a bolt into the right hand wall and the bolt driver broke so we couldn't go on.

I put in the eye at [illegible].23.00 at the bottom of the pitch after the "Icing on the Cake".

find, fortunately, that it ended in a tight rift. Phil left in a hurry with Avio Betty, leaving Dave and I to survey Mylonite Inlet to the sound of lumps of dolomite falling off the victims I had just surveyed down. Epic exit by me – my first time through the Nest! (49)

We headed out. We ~~[illegible]~~ caught up with the surveying team on the way out

Got out at around 4:30.

---

6 August. Richard, Wibbles, Rose major (patient)

Surveying from the previous point to the bottom of Thompson's Gesellschaft formed the incidental circumstances to the caving discovery of the month. JAMON! A trip to Cangas market on Sunday was all the necessary preparation. I approached the stall in the appropriate linguistic melange asked for 500 grammes, sliced. This was done on an ancient hand [illegible] slicing machine & the slices neatly packed in a plastic bag. No further adaptation for underground use was required: Dr. G simply placed the package in his SRT bag.

On reaching the end of the survey (some while after leaving as we re-rigged / tied all the ladder pitches) the bag was unpacked. Bliss. Chewy, dry, salty slices of the finest ham in the world; REAL FOOD instead of greasy old tinned fishes + invertebrates. We left half of it + went surveying. How we worked! The ham juices redoubled our acuity, strength and vigour. The survey, we knew in our hearts, was accurate to the limits of belief and Suunto design tolerances.

We came back again and ate the rest of the ham (as well as some other things like dives). How we cheered up despite the fact it was midnight! On the way out we seemed almost to float through the cave. (Well, sort of. So enamoured of the natural beauty (her appreciation is mystified by the ham) was Dr Wibley that she got off on a lorry-park ledge half-way up the Armadillo.

We got out about 4am after some

difficulty with the square, partly owing to the lack of further nourishment.
The night was extraordinary: so quiet that I could hear the two doctors making love at the top of the first pitch in their shared joy at a successful speleological excursion although I was discreetly waiting for them ¼ mile away. There was also that sense of phenomenal starlight, unmodified by any other source, so bright that the clouds in the gorge, the rocks, the grass + the details of the crags could all be dimly picked out.

[It was Dr W's 7th caving trip. It lasted 15 hours. A point worthy of record.]

7 AUGUST 1984

Philip S. attempted to calculate the depth reached by the survey so far and found a couple of dino readings of 147° and 149° ... Also, the data for stations 1→36 has no author, date, names of surveyors etc or reference to where the cross sections may be

found. Given up in disgust. Gone to Lagos to do a carry. (NB)

When people copy out results in the ~~log book~~ logbook, could they please leave extra columns & lay out the data in 10 columns: viz:

station-station	clino.	compass.	tape.	legdepth	leg N.	leg E.	tot. depth.	absolute N.	absolute E
1	2	3	4	5	6	7	8	9	10

(columns 5–10: to be calculated later)

If you copy it down in a nice compact table it only ~~has~~ to be copied out again when the data reduction is done.

7.~~6~~.8.84 Phil R, Ukie + Phil D.

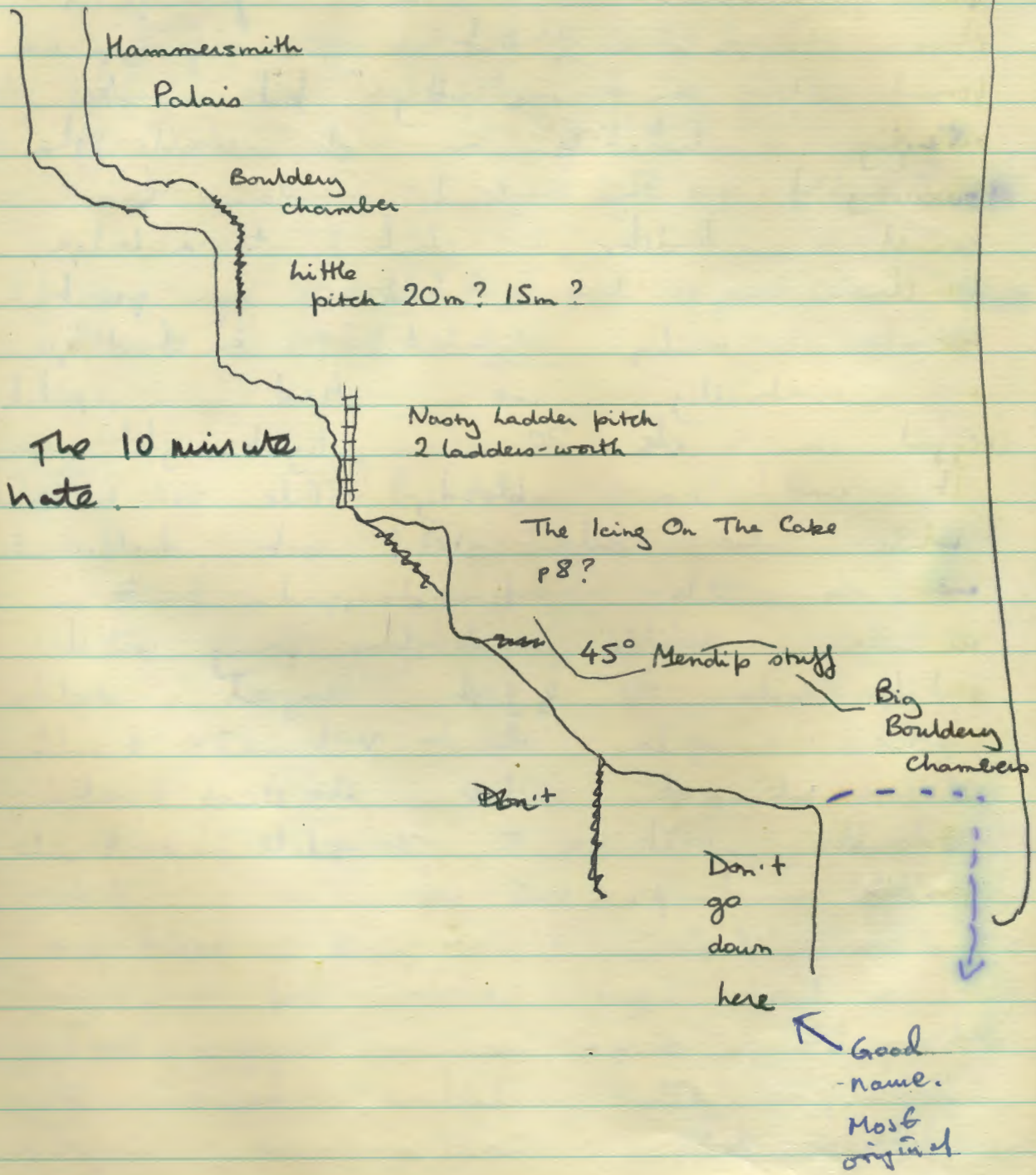
Pushing trip 18 hours.

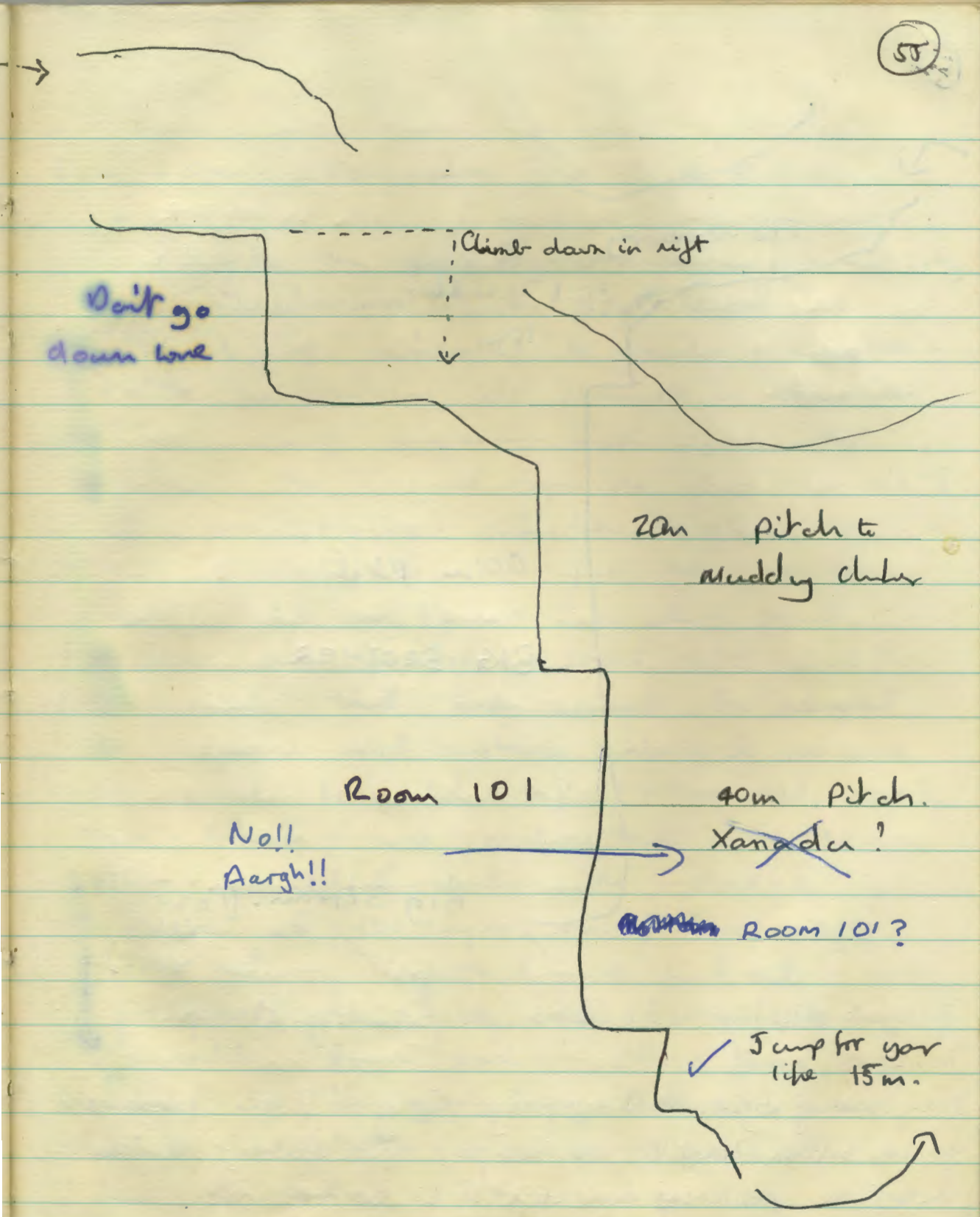
Had a smooth trip down to ~~the~~ top of pitch where the bolt driver expired under the direction of Fred & Ian even though perhaps made less pleasant by tackle bag + prusiking.

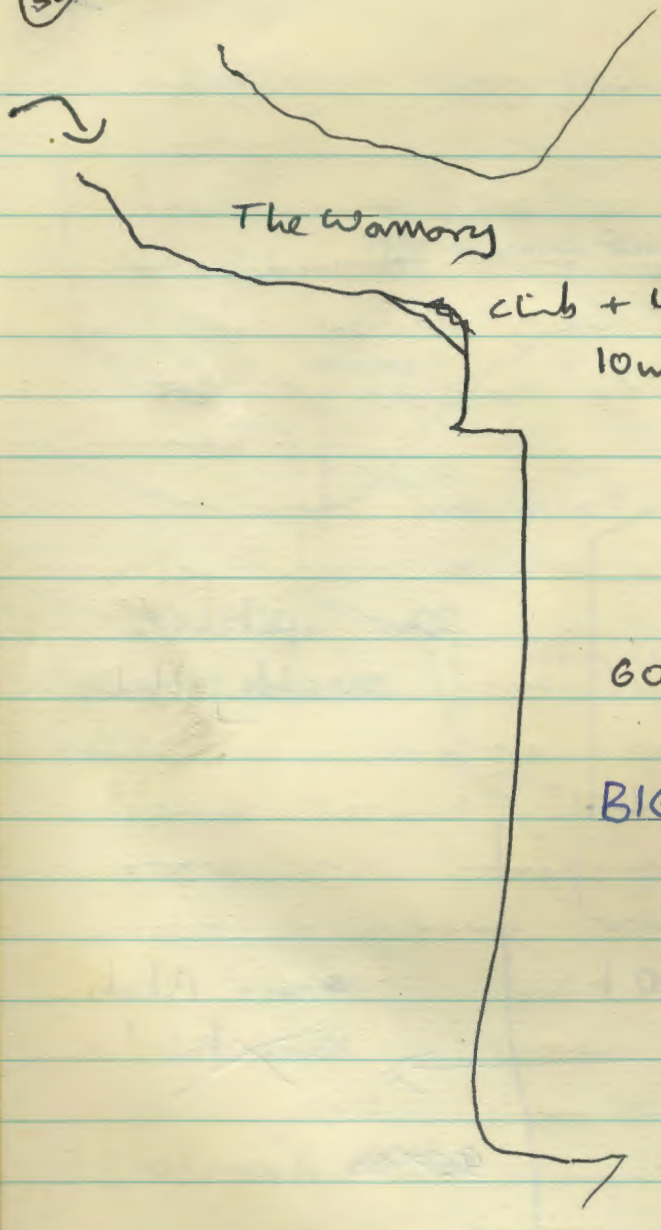
Rigging this proved interesting starting a tip toes on a chossy projections trying to put a bolt in as far above my head as I could? This gave a nice 40 m pitch to superb marbled ledge followed by a 15 m pitch ~~rigged~~ rigged

on naturals. The passage is then large but soon you are forced into a scratty bit with amazing helictites on the wall. (the wormery?) This lead down to a small ladder climb to a ledge & then ... We had a great time mucking around on this ledge & eventually we had a pitch rigged on the 70 m lightweight rope. It was now bloody late so I descended while the others sorted out the descends were superb. I dropped into a massive marble streamway with pitch down & just beyond and climbs upstream - is this X it in? & wait in anticipation for the Dave's return. Smooth exit to complete an superb pushing trip.

Sketch to join onto Dave + Steve's.




Climb down in rift
Don't go down here
20m pitch to muddy chute
Room 101
No!! Aargh!!
40m pitch.
Xanadu!
Room 101?
Jump for your life 15m.



7 August 1984 Martin Hicks, Stephen Gale, Sean Hodges. Photographic trip: 15 hours.

Photo record of high-level entrance passages, Geological Disaster chamber and the cave between Armadillo and Thompsons Geschellschaft. It seems that Sean eats even more than I do underground.

Dave + Steve Verification Trip 8.8.84.

Despite the obvious unfashionability of verificationism, with the heaped-up critiques of philosophers like Kuhn + Newton-Smith undermining its premises + objectives from many angles — most significantly, perhaps, the logical explosion (or "reductio") of verificationism's reductionist elements, the discovery of this postulated "master code" (a very big hole into which other, smaller holes emerge — Stead, 1980, et al) demanded that this approach be adopted. OK. Now a short sentence. Was it So or was it ain't Porn del Xitu? (Fitzgerald, 1946). Since Richard was making love with the other qualified medic with redoubled vigour at Los Lagos I was the only 1981 veteran equipped to find out.

Our big mistake was to take a bag of tortilla down each. Prima facie, the chances of it not being Xitu were remote: while the 6 cans of fruit, 17 cans of tuna + 2.6 packets of olives in one

of the bags came in handy, the ropes did not.

We reached the top of BIG BROTHER after several hours, marvelling at the bolt on the 40m above along the way.

I rerigged BB with PM1 and descended.

It was not, on reaching the bottom, presque vue. It was not jamais vue. It was déjà vue, or in other words, Dampturnian Much bigger + deaner than La Cistra. Beautiful. Tears of nostalgia came to my eyes as I peered round the all-too-familiar cuttress of Dampturnian Pitch and spotted Graham's bolt with hanger still attached: Memories and the memories of those jolly times of 1980 + 1981 came flooding back.

How we would sit around the bolt ordering round after round of drinks while Skunk tinkled cool jazz on his little portable piano. How long-forgotten members of OUCC like John Singleton gaily re enlarged the cave by

bumping into it, to the gratitude of their companions. How we were young once too. And yes (more seriously) how Graham + Keith Potter had pushed down Dampturation and on to Pythagoras, + before that how Keith + Skeats had free-climbed the dread mantleshelf.

But it was time to dry the tears. Dr. Roberts had arrived and was demanding to know the location of the nearest latrine. I pointed Hilton him upstream, where we sat on a ledge having our 15th meal of the trip, and then he (alone) covered his SRT equipment with faeces.

I got out of there fast. 5or6hours later we were on the surface. We had arrived, in a sense, at a Truth, a Fact, a Certainty. As we walked back to camp and later sat ~~over~~ eating in the frosty (yes, frosty!) night I pondered on the implications of the trip. Yes, it was is but not was ain't xite. But contemporary philosophy would never be the same again.

(60)

Reigging Trip Ian 8/8/84

3-30 pm and it was still raining. But I had, as they say, to go. Dave R. & Steve R. were pushing, having abseiled down the Armadillo rope (worn through ½ of the sheath) on the understanding that I'd re-rig it before they returned.

I was to go with Dave H. but he'd been stricken down with a surfeit of Mornflake 'Oats, so solo it was. An age sorting gear out, packing it in a bag at the entrance, and then finding the bag too big to go through the Nest set the mood for the day.

Wild anger pervaded and proved that the boot is mightier than the bag. Heave, thud down the Streamway to Armadillo.

Somehow I couldn't sort out an easy way to rig it and finished with a '3 way' belay at the pitch-head which had involved traversing out on BOTH sides of the pitchhead. (The RH side is airy!)

Down to the mega lorry park ledge that Dr. Wibley had previously disembarked onto from the rope. Various combinations of rebelays, deviations ... They didn't work.

Built up ½ of the pitch. Put in a bolt. Tried a Y-hang on various flakes. They all fell off at a glance. Tried pendulums and deviations. Geronimo like-hurtles across the pitch thudding.

into opposite wall. Gradioso project on. It falls off. I hurtle back under the waterfall.

Hey, dummy. Why not hang it off the bolt alone? Wow - it works!

At this stage, about 5 or 6 hours underground alone, I start to wonder if solo caving destroys the brain.

Back down, more pendulums and this time, a working deviation. Down to the bottom, I untied the old rope and prussiked up, detaching the old rig as Steve Roberts arrived at the pitch base - with the news that we had joined Xitu.

It was nice to see a human being? again. We shared chocolate (mine.) I later found out that Steve had already eaten rather a lot, which explained his leaving 2 squares. I legged it out, closely followed by Steve and less closely by Dave, + managed to get the Cretan style stuffed peppers hot by the time they arrived in camp.

9 August 1984

Dave H., Fred + Richard go off surveying Cistra. Sara & Philip S. do a surface survey between Cistra & Xitu.

CISTRA is 73·60 m lower than XITU.

After cooking a gourmet meal for the returning

(62)

Surveyors we returned to the Refugio to finish the boundary and SIE leant us their HP 41C to do some survey calculation. Very Nice of them Indeed.

The fine trip upwards to magnificent views of the boiling gorge has not been mentioned. The rapidly advancing tides of grey cloud discouraged a trip up Jultayu but the peak above the camp is definitely worth a visit.

10 August 84

Steve + Hilary arrived late last night + left for top camp ~ 09-00. Then we discovered that the surveying compass used by Fred + people for the past 3 or 4 trips has a RANDOM ERROR (the scale is loose) and they didn't think to tell anyone but just kept on using it.

We (Sara + Phil S.) are going down to survey down from the Icing On the Cake and desperately hope for some relief party to come & continue from us after a few hours! We are taking the old clino + the ~~Sch. of Geography~~ other club compass.

[illegible] Dave H., Fred + Richard (me) surveyed La Cistra.
[illegible]used with delight at a chance to taste the
[illegible] waters of Pozu del Xitu again I was almost
[illegible] as Fred at descending La Cistra. A foothold
[illegible] way and pitched me face first into the stream.
Suddenly a dread horror swept upon me as though
of [illegible] I had eaten. Did this fall represent
[illegible] return of the old trouble? In Borneo every
[illegible] trip left me with a new injury - dislocated
shoulder, gashed arm, knee etc. But I digress.
[illegible] reassembled at the head of Gasellschaft.
[illegible] rope was through to the core... the water
[illegible] to tip over the top of our welly boots....
[illegible] and I re rigged La Cistra having turned the
[illegible] upside down. We were dismayed at our
[illegible]claim. Where could we put the ropes
[illegible]tor?? Where could we put the deviation??
[illegible] couldn't find any spot. Unfortunately we had
[illegible] settle for second best: we rigged a completely
dry free hang from two good naturals with a
[illegible] tape sling. I'm afraid the spirit of Picos caving
[illegible] lost on me.

[illegible] efficient and speedy surveying trip followed and
[illegible] we touristed to the Xitu stream. Ah yes! What
[illegible]ries were brought back. Damptoration pitch was

famous for the fastest SRT in Xitu. A sc[illegible] pitch, it was so wet that you got off the rope real quick man. Prusiking it wasn't [illegible] because, coming so soon after the hot Pythag[illegible] it was only a little bit more than refre[illegible]. Dampturation was also famous (apart of course for Frank[illegible] bolt and the chain of over 10 maillons which [illegible] constituted the primary) because it was one of the unresolved problems of ways on in Xitu. One, at the bottom of the Big Pitch turned out to be El Puritano series (which memories make me shiver with horror) but 'the black space above Damptur[illegible]' was never pushed. This was because it was a [illegible] climb - which we now know to connect to the lower part of Big Brother. A tremendous [illegible] [illegible] for once. . . . .

PS: ¡Cabeza Muxa ha terminado verdad!
Profundidad al sifon terminal = 909 m[illegible]
Sifon terminal esta 1000 m de profu[illegible]
al bajo directamente del Refugio MVA [illegible]

Phil Sargent, Sara + caught up by Phil R.

came and went unnoticed behind the
mist. The raid to complete the survey was
be delayed. All went calmly until
Geellschaft where the rope broke, no less.
Phil abseiled the outer disintegrated leaning
that looked the like about 5 flimsy strands.
Sara, bravely, had to provide with crossed
fingers descended past it, tried a mega knot,
then both enormous amusing took 20 minutes
descend past it. We apologised to those
lowing but, aside from telepathy, could not
a warning.
Phil R. found us at Hammersmith Palais
had a large meal from the Christmas
of rations he had brought. The survey
was soon found and the instruments
located. The clinometer declined to incline.
cold hour was spent fiddling with it in
determined (honestly) attempt to make it
, without success. We decided not to make
tourist trip to the bottom (the surface
a long cold way away) and in fact
had quite and efficient exit. Please

(66)

don't assume that this trip was completely a disaster as we enjoyed it very much.

Also I jammed the blow Carbide container up in your [illegible] climb! when I tried to have Trek at that dreadful climb at top of the Armadillo.

3rd August. Dave H. Richard & Satch.

The first surveying trip down 12/5 (written up very late.) Arrived at the entrance and surveyed from the SIE circle down the entrance. Surveyed to the bottom of the 1st ladder. Dino failed to work. After 15 minutes of climbing back & forth, deciding whether to go on or not the dino decided to work again. Surveyed the way down the entrance series and to the down the upper streamway. Left two indents in milliways chamber and all the chambers above the squeeze to be surveyed at a later date. All 4 members of the party had no difficulty with the squeeze, even Richard. On arrival back at Ario some complaints were heard about the accuracy of the diagram and lack of elevations, which were in fact there.

Richard's notes are deciphorable only by Richard.

It's said that Ian says he's useless in the middle of the night....
12.8.84

11th August 1984 Stephen G. and Ian.

An unusually efficient start, awake at 0600 and in the cave by 0900. Our plans for a tidying-up surveying and sedimentological trip were shelved when we learnt that the previous night's arrivals from the cave had failed to do any surveying because of an erratically-reading clino compass. We therefore agreed to complete the survey, as someone else would be sent down to help us, followed by the first of the detackling party. An easy and uneventful descent, with the exception of an interesting technical change-over at a knot whilst not wearing any ascending gear. Having been assured by Richard that 20 survey stations would see us to the bottom of the cave, we surveyed ~30 in 4½ hours before

counting our remaining bits of carbide and deciding that we didn't even have enough left for a tourist trip to the bottom. A pleasantly-paced exit we left the cave at 0110. Early morning starts must be the sensible way to do trips of this sort of length. A pity no-one else arrived to give us a hand, as with someone to read the instruments we could have proceeded at twice the pace, and could probably have completed the survey.

12 AUGUST 1984

Phil S., Iestyn + Phil Duncan.

I & PD underground at 11:00 or so, PS rushes back to camp for the anti shit pills + to fill some tubs with grease. I (Phil S.) caught them up at the top of the Armadillo and watched Iestyn remove his rack to negotiate the deviation...

Otherwise uneventful trip to pitch 30 where the tape & lost survey point was found — we did one vertical leg into the chamber below the traverse line and spent an hour boiling the compass and other bubble bubbles + toiling trouble trying to get it in a fit state to read. PD jacked at Iestyn & I went for a tourist trip down into Xitu — STUPENDOUS! Big Brother is AMAZING!! Vague ghostly shapes looming out of

Tackle List for 12/5

12/8/84

Pitch No.	Pitch Name	Belays + Tackle
①	ENTRANCE	F, IT, 2W, 2M, SP, L (25') / F, IT, M / 10R
②	2ND LADDER PITCH (UPPER)	B, M / B, M / SP, L (50') / 15R, RP
③	NEWT	THR, 10W, M, ST, M, 15R
④	BASTHOUSE	B, M / F, IT, M / B, M // DEV = B, M, IT, K // RB = B, M / DEV = B, M // SOR
⑤	HANDLINE CLIMB	NATURAL CHOCK, 2W, M, 10R / IT, M
⑥	OWL	B, M / F, 2W, M, IT, M / 15R
⑦	RIFT CLIMB (OPT)	B THR, 3W, M, SP, L (5M) / THR, 2T, M / 10R, RP
⑧	MILLWAYS	THR, 2T, M / THR, 2T, M / F, 3W, M / 25R
⑨	THE WINDOW	[illegible] CHOSS LUMP, 4W, 2T, 2M, SP, 10R, L (25')
⑩	BOULDER SLOPE HANDLINE	BOULDER IN RIFT, 4W, 4T, 10R, 2M
⑪	OPTIONAL PITCH TO AVOID TRAVERSE	USE 15R ON PITCH ⑩ / F, 2W, L (25')
⑫	MUD FORMATION LADDER	F, 1W, M / F, IT, M / SP, L (10M) / 20R
⑬	ARMADILLO (1)	B, M / B, M / 20R, RP
⑭	ARMADILLO (2)	B, M / B, M / F, IT, M / 75R // RB = B, M, 2W, M, 2T // DEV = 2W, 4T, K
⑮	SHAVEN HEDGEHOG	F, M, 4T / 2W, F, M / 20R, RP
⑯	1ST LADDER (LOWER)	F, 1M, SPR, L (5M)
⑰	FISHING POND 2ND LADDER (LOWER)	B, M / F, IT, M / SP, L (25') / 10R
⑱	CAMSHAFT	F, 1W, M / B, 2W, M / THR, 2T, M / 40R
⑲	GESELLSCHAFT	3W, M / IT, M / IT, M / 35R, RP
⑳	OLIMB	F, 2T, M, 15R
㉑	THOMPSONS GESELLSCHAFT	B, M, 1W / F, 1W, M / 40R // RB = F 2W, M / F IT, M

(10)

Pitch No	Pitch Name	Belays and Tackle
(22)	EDDIE SHAH	F, 4W, M / F, 4T, M / 30R // DEV = F, 2W, K
(23)	GRAND MAL	F, 2W, M / F, 3W, M / SP, L(25') / 15R
(24)	PETIT MAL	F, 2T, F, 2W, 2M, 15R
(25)	HAMMERSMITH PALAIS	THR, 2T, M / F, 2T, M / 20R, RP
(26)		F, 5W, M / F, 2W, M / 25R, RP
(27)	LADY ~~MARGARETS~~ MITCHELL HALL	F, M 1T / F, 1T, 1W, M, SP, L(25') / 20R
(28)	ICING ON THE CAKE	F, 6W, M / B, M / 15R
(29)	CLIMB ALTERNATIVE	BOULDER, 20R, ST, M
(30)	THE HEATH TRAVERSE LINE PITCH	F, 1T, M / F / F / F, 2T, M / THR, 1W, M / 40R
(31)	JUMP FOR YOUR LIFE	B, M / B, M / CHOSS, 3W, M / 55R (WINSTON SMITH?)
(32)		2T, M, F? / F, 2W, M / 15R (JULIA?)
(33)	ROOM 101	1T, M, 15R / F, 0.5W, SP, L(25') / 1T, 2M
(34)	BIG BROTHER	B, 0.5W M / F, 1W M / 60R

Key: F = Flake, B = Bolt, M = Maillon, THR = Thread belay
3T = 3 metre tape, 4W = 4 metre wire, SPR = Spreader
65R = 65 metre rope, L(25') = 25 foot of Ladder
DEV = Deviation, RB = Rebelay.
/ = Separate belay at same general height
// = Gear + Belays required further down pitch

Example: Eddie Shah comprises a 4 metre wire and maillon around one flake, a 4 metre tape and maillon around another flake, some and uses a 30 metre rope. This rope is deviated some way down with a 2 metre wire and krab around a flake.

the vast darkness. Met Ian as we came out at the top of the Heath (named after our toilings + trouble) where we discussed rigging. On the way out I put another tape on Gesellschaft as a better backup. Exit (PDTS) ready 01-00 to beatiful night. Back to Camp to discover a lot of pissed people suffering from water shortage & wine surplus.

Wave 2 : SGR DJER UCC : indulgence in iced Ricard postponed our departure till twenty to five. This proved to be completely unimportant as we met Phil Duncan at the bottom of Camohaft with news of the fucked survey gear. Out we went, disheartened and caving badly. Seeing Dave coming through the Newt is not a sight for the queasy-stomached.

We got back to camp totally dehydrated and urged to find nothing to drink but WINE and RICARD. All completely hammered as newts.

Wot a zoological cave, eh?

Fig A.

How To Grow A Beard In Your Window Box At Home.

Contact Mr. I. Walters for free explanatory leaflet. Simply send an S.A.E. and

cont. on p. 96

flake.

(72)

13/8/84 Steve R, Richard (who else), Sara

<u>To find Systema Tercera</u>

3C + 3RS FTBCG + 1PP + 1BC + 1NWO

<u>Key</u> C - cover

RS - rucksack

FTB - full to brim

CG - caving gear

PP - packet peanuts

BC - bar chocolate

NWO - naturally wrapped orange

Found cave (3/7) rig constituted

1·KR(50), WB, M, PL, TPJB

<u>Key</u> KR - knotted/knitted rope

WB - wire belay

PL - Picos Limestone

TPJB - 2 precarious jammed boulders

Descended by nervous material scientist slowly but bravely to ledge a full metre below ledge - RB - <u>key</u> rebelay

Then continued descent, rather faster than expected (on nero RMI) to ledge with view of a chamber. Dr G scrubbed up to help and brought R2 (key second rope) to the ledge where a knot was made.

Dr S.W finally braved the great lake

To join the intrepid explorers at the blind bottom. (ST eludes us yet)

key – ST – Systema Tercera.

Next objective – Trundling (fun) + mega-trundling (BIG boulders)

Next next objective – To explore every alley, survey every hole, leave no stone untended in our quest etc.

4/7 – a scrofulous, stoney crawl not attempted by RG, opening into a promising rift (thought SGR) of ~ 20feet with 2 dead sheep, much slime and a difficult exit.

5/7 Cueva del boulders on the head RG climbed down. This one took a long time to find. Narrowed to a 5 inch gap. Exhortation from above was unheeded and this (narrowing to 1" rift) remains unexplored. approx 30 feet deep.

21/7 Sara's cave – Cueva del tres corbies. belayed to BE key Bank of England + Dev key deviation

(74)

Dr W first pushing trip. A superb 15 metre pitch followed by a devastating 10 m scramble among overdueling formations to narrow squeeze — declined as no suit on (Constant risk tan with scratches) to v small ~~ech~~ chamber with stoney floor.

Desert to Refugio to beers + wine (on David's bill).

14/8/84

Richard, Dave H + Steve R
End of Survey — Start Derigging Superlosers
Brownie Points Trip.

Surveyed to the Bottom; Dave bravely 'volunteered' to go down Big Brother.
Galloped out with 6 tackle bags but got fed up & dumped them at the Palais.
Started a carbide-sharing club, owing to lack of deep dumps.
SGR had another deep dump, at the head of BB this time.
Appreciated the food near the entrance left on the last detour trip
In at 12:30, out at 4:15, knackered.

14-15 August. David Rose, Ursula Collie, Philip Sargent, Caspar Weinburger, Ian How-to, Dr. Sarah Wibley.

POZU CABEZA MUXA. (-906 M)

At the top of the first pitch from the awesome doline the rig did not look good. It was clear that the "back-up" bolt was doing no such thing. Fortunately ~~for~~ for one's peace of mind, the ~~last~~ metre section of sheath-less rope near the bottom was invisible.

Josep Victoria stood smiling on the ledge with his omnipresent umbrella, his bright eyes of 25 years caving experience sparkling through his shoulder length hair + black beard. At last los Ingleses were to descend his pob. "Au revoir" I said finally slipping in, "Merci Victoria, à demain."

At the bottom, a huge, meandering rift; hard, clean limestone of a quality which I had thought alien to the Picos. The second pitch. Oh dear. Only one bolt, + that sticking out 10 mm. No backup; The hanger ancient wafer-thin steel. At this point there was a decision. Abandon trip + explain why to our

good friends from Swaledale. Or perhaps that if the rigging could support the 310, it would support us too. Many hours + many shafts later we're back so it must have done.

Things became interesting at the Gran Abisu, P247. (Two-four-seven.) At the top 2 bolts, with 2 metres slack between them. A little white marble chute terms into a shaft 40m higher than the Post office Tower. Innumerable re-belays: most of them old, rusty bolts in which the half-screwed in hangers had long ago set rigid with corrosion. Dr Sargent decided that he had had enough at this point and departed: partly my fault for going very slowly out front, consumed with an irrational need to unscrew the hangers that could be moved, just to make sure there was in fact a bolt underneath and they weren't just pressed onto the rock with mud.

At this point, Dr Sargent the jacket takes up the story:- I came back in very thick mist and found a very tidy campsite and Chris in command. There was time to go up to Top Camp to take Chris - but since we couldn't

see from one side of the campsite to the other it was held to be a bit risky to attempt. We boiled a lot of potatoes and ate some & added the rest to the stew – a reinforced later edition of Steve's of the day before. We spent much of the evening speaking appalling french with Victoria + the SIE and reading books. I bought 4l of vino tinto de mesa and got well stuck in to one of them – Chris went back to produce a 3rd edition of the stew with added veg. After a while – and much of a litre later – I realised Chris had been gone some time and staggered back under a heavy load of wine, catalonian speleological surveying book, a vintage Le Carré – under no light, thick fog and a lack of balance.

Back at camp, Jestyn had appeared and I ate some stew and went to sleep. At 05:15 Team Krypton Factor came out of 12/5 and I had some more stew and spaghetti. At 07:15 I got up to welcome the return of the Kagimuesa Shadow Warriors (and had some more stew). Spent the morning drinking wine + Fred's brandy and undressing Fred who was showing signs of catatonic schizophrenia and who had fallen over whilst having a piss. The photos should be amazing.–

Spent part of the afternoon rigging a 15m rope on the cliff above the entrance to 8/5 for Chris to learn SRT – a 2 foot natural threads on wires.

(78)

13 August 1984. Stephen G, Jan

After getting up at 0500 at Top Camp in order to get Hilary to Los Lagos in time to drive Phil R to Arriondas, Jan and I eventually got underground at 1300 with the intention of doing a very short tidying-up trip: surveying the last inlet at Milliways and sediment sampling. Things started to go seriously awry when I abseiled at terminal velocity through The Newt onto the first ledge on The Oast House; a very painful experience. We arrived at Milliways and began surveying "The World Richard Forgot". At the inlet, attempts were made to follow the stream (too tight), before we climbed the rift. Previous hardmen had pronounced this scrofulous, tight, unpushable, wet, etc, so we were quite surprised to find our way through the rift into a small high chamber. Jan wisely decided that the rift climb out of this was a) loose and b) exposed. He was right: I promptly fell off as various holds crumbled beneath me, ending up jammed above the stream. Another attempt got me to a walking size passage and then round a corner

into a large, upward-trending and beautifully-decorated passage (La Prevista de Santa Dominica). I followed this up and up, the passage becoming larger and possibly even more beautiful, until eventually I decided to return to where Jan was waiting and to survey up it. We surveyed until our carbide ran out, and then returned to Millinays where we resurveyed back up to the base of the ladder pitch. We exited at 2310, eating a tin of grapefruit on the surface (Jan has such wonderful ideas!) before making the desperate journey back to Ario for our saline drip.

Philip "At least this cave's big enough to get a coffin out of" Sargent

La continuacion de Musxa:

The Gran Abisme, nevertheless, is an overwhelmingly magnificent place. Later, ascending without a light, its vastness was illuminated by the others 100m above + below me: save for one small ledge, it's straight down for the entire distance.

After the last re-belay I could hardly believe that the bottom was at last coming into view: but there it was, just like the bottom of many other shafts, a sloping shingle floor.

Found the cover, Porus Lusejs, P110, for most of the way a splendid free-hang. Except after the re-belay half-way down where gross incompetence has created an horrendous rub-point: the attitude of the SRT here seems to be simply to pull up another few metres of (9mm!!) rope when it's through to the core and tie another knot.

At last, then the streamway itself not really a streamway a genuine river-passage. Immensely high, often 15 or 20 metres wide, it wends its way down - 300m past cascades, a boulder choke, waist-deep wading and several appalling traverses + wet pitches - rigged on sled bits of clothesline, often usually tied simply

without back-up with bowlines round pots of chaos.

Many of the potholes are quite wet: by the end we were all soaked through. In a fine fossil section, Ian felt stirrings and using a handily available plastic bag excreted 2 gallons of liquid through his arms.

A little further on I destroyed my generator trying to stuff carbide into it with only ½ a dunecail + Ian's bowel problem we + Sarah turned round. Our exit was long, for me quite dark except at re-belays when I flicked the light on, and arduous. But exhilerating none the less; and by the time one found the belay one was above it, generally better for peace of mind. Ian was out at 4-30; I joined him half an hour later + changed, keeping warm by hopping to imaginary James Brown. By 7am we were all out of the doline, and soon met Victoria on the path. She had come

to look for us, which I found very touching. Well done SIE. Bad rigging but a superb cave unlike any other I have seen in the Pyres. And as promised. pas des étroitures!
(It was Sarah's 10th caving trip. To c.-800m.)

Well, as Fred said, the SIE would have thought we were wimps if none of us made it to the bottom. So when it became evident that the destruction of Ian's bowels and Dave's light would halt their progress in the cave, Fred and I (Ubery) made our way down. The streamway became increasingly beautiful: deep clear wide pools alternated with spectacularly wet pitches rigged on a fascinating variety of clothesline, bootlace, & catgut etc. The SIE obviously take caving ethics to their logical extreme - to the point, in one case, of disdaining actually to attach the rope to anything at the pitchhead. Such purity of vision! The rope from the previous pitch was simply wound round a projection on the far side of the chamber and trailed over the edge of the pitch; when it unwound itself in mid-abseil Fred fell six foot resoundingly to a wet pool full of rocky spikes. Fred in his shortsightedness wasn't very happy about this, but I was granted a beatific vision of the future of lightweight speleology stretching out before me.

After some deep wading in large round chambers and traversing around those white formations in the river, we reached the SIEFON. White walls reach down through clear water; it looks like an underwater pitch leading to further unguessable cave .... Fred & I, although normally quite sane, understood the urge to go cave diving as we sat silently and looked down.

The way out was enlivened by Fred exploding a carbide dump into his face ("Ah! Classique!" said Victoria when we told him) and by Fred and I both falling in the water and getting totally soaked when climbing around a bit of cave we needn't have been in in the first place. We were cold and a bit disgruntled by the time we caught up with the others at the bottom of the long prussik out, but agreed that the sight of the SIEFON had been worth risking our necks on Catalonian rigging for!

(87)

Troll Suits Comments. (D. Hursley)

Problems. Breast pocket stitching wears through quickly so pocket falls off. Poppers break easily (the head snaps off. I (Dave H.) have lost two poppers. Hood - good design but could be either bigger or more stretchy.

Advantages: V. hard wearing - they have stood up very well to many hard trips down 1215.

Dave C - Gy for The best suit I've had - after 7 serious trips it has only 2 small holes in the knees. It is much better (seams esp) than the Troll I had 2 yrs ago; and compared to last yr's Petzl, magnificent - that was virtually unusable after 3 trips + required hrs + hrs of mending.

Velcro is too narrow and loses its stickiness. Hood too small.

Ian H. I have the (3 years) old design of suit, which has the old ex-house seams. The seams are superior to the new ones, since they only fall apart when abraded right through (this suit has taken 3 years of very hard caving to wear out) The points where my suit finally went were the

forearm seams, and a knee seam (This will obviously be affected by one's caving style). The new suits definitely fail prematurely at the breast pocket seam, but also show evidence of being less ~~ab~~ long lasting in the other seams, such as the leg seam. Some suits have split not on the seam directly but along the line formed by the seam backing material, presumably due to the different stiffnesses of the seam and neighbouring material.

All in all, the new Troll suit is still better than the Petzl, but now only marginally. ~~It~~ The new suit does not have the outstanding performance that the old suit had, that lead me to recommend it to my caving colleagues, but is still v.good. Other points; The front seam needs poppers all the way down (~~why~~ why were they omitted?) and thicker velco. The suits also do not fit some of the tall, thin people well, apparently. The hood needs re-designing. It is too restrictive.

After 3 years, my suit has about 15 pinprick style holes, 3 1" tears in the RH knee, a 3" split in the RH knee seam, and has required re-inforcing patching on the forearm seams and one underarm seam.

12/8/84 Ian H. (Solo) (Almost) 12/5

The day of the abortive detackle: My intention was to follow Phils, Phil D, + Ledge to help with the deep detackle, after they had completed the survey. En route, I was to take notes of the rigs on all the pitches. There was no permatrace left, so I had to use bits of paper, which became increasingly difficult to write on, particularly after I dropped the plastic bag containing them down a pitch into a pool of water. At Gesellschacht I abseiled into a mid air knot - rather to my surprise, as the pitch is a complete free-hang. The sheath rope had broken at the site of a rub on the earlier rig. I spent a little time getting wet, and getting prussikers out of bags.

At Grand Mal, I met Phil Duncan who gave me the bad news that the compass was totally fogged. Indeed it was: not even the sighting line was visible. Something akin to staring at tissue paper.

I obtained the permatrace from Phil D and copied out my notes discovering that the information for the previous 7 pitches had become unreadable. Continuing in, I met Phil S and Ledge at the Heath. A brief chat, and I continued in, deciding to take a calculated risk to see the Xitu and finish my notes.

Soloing out was slow and rather lonely. My glasses kept steaming up, which was very annoying when I was trying to examine the rigs on the pitches for which the information had been lost. No further mishaps, and I exited at about

4.00 am. At camp, rather to my surprise, I met Jedyn, who had been left behind by Phil S in the upper streamway, had had great difficulty route finding, and had eventually got to camp only ¾ an hour before me.

(88)

17/8/84 The Great Debackle

Intl: Bowels now have changed from full on to full off. I don't know what my body is doing, but I prefer this version of it. At least I can now form wave 1 in safety, so I thought Ha Ha.

Wave 1 (me) got up at 0600 and was down 12/5 at 0800. Everything was planned: I would attempt to speed the debackling by getting as much done early in the morning as I could and ph Phil S. (Wave 2) would follow a couple of hours later.

Unfortunately, my now rather well-known desire to re-do rigs that I don't like got the better of me, so and I pulled up the rope at Gesellschacht (knotted at the nib) and cut it, relying to knot with a nice, safe, long tail. I then abseiled down, changed over to pass the knot, changed to back to abseil, and .... abseiled off the end of the rope.

I landed in a 2 foot deep pool, 15 feet down completely unhurt, my impact completely cushioned by the water as I landed in abseiling position with no time for thoughts (such as WHERE? WHAT? or having ever a very small part of my life flash unpleasantly before my eyes) and instinctively The rope was clearly out of reach, I observed, wetly, lighting my carbide light (mistakenly)....

To be continued.

(10)

S.I.E. del C.E.A.
Viladomat, 152
080015 BARCELONA tel. 2544056

ll

19 August 1984

I (Philip) walk up from Lagos with a light pack + collapse at Aris. Various others discuss heroic carrys and detackling trips and I moan gently as a means of putting my point of view. 3 hours later I wake up to a deserted campsite - still totally knackered, however, after discovering the restorative effects of bread dipped in strawberry soup (very hot in the stove tent) and driven by a raging thirst, I decide that this is a good time to test out the Sargent Groundwalking Rig. A quick check reveals that no bits have been stolen by Asturian Bandits so I set off: Hmm - surprisingly comfortable system given the general decrepitude of the component wonky ankles, sore feet, dodgy knees etc. Recommended for short distances only, with no

without back-up with bowlines round pots of chaos.

Many of the potholes are quite wet: by the end we were all soaked through. In a fine fossil section, Ian felt stirrings and using a handily available plastic bag excreted 2 gallons of liquid through his arms.

A little further on I destroyed my generator trying to stuff carbide into it with only ½ a dunecail + Ian's bowel problem we + Sarah turned round. Our exit was long, for me quite dark except at re-belays when I flicked the light on, and arduous. But exhilerating none the less; and by the time one found the belay one was above it, generally better for peace of mind. Ian was out at 4-30; I joined him half an hour later + changed, keeping warm by hopping to imaginary James Brown. By 7am we were all out of the doline, and soon met Victoria on the path. She had come

to look for us, which I found very touching. Well done SIE. Bad rigging but a superb cave unlike any other I have seen in the Pyres. And as promised. pas des étroitures!
(It was Sarah's 10th caving trip. To c.-800m.)

Well, as Fred said, the SIE would have thought we were wimps if none of us made it to the bottom. So when it became evident that the destruction of Ian's bowels and Dave's light would halt their progress in the cave, Fred and I (Ubery) made our way down. The streamway became increasingly beautiful: deep clear wide pools alternated with spectacularly wet pitches rigged on a fascinating variety of clothesline, bootlace, & catgut etc. The SIE obviously take caving ethics to their logical extreme - to the point, in one case, of disdaining actually to attach the rope to anything at the pitchhead. Such purity of vision! The rope from the previous pitch was simply wound round a projection on the far side of the chamber and trailed over the edge of the pitch; when it unwound itself in mid-abseil Fred fell six foot resoundingly to a wet pool full of rocky spikes. Fred in his shortsightedness wasn't very happy about this, but I was granted a beatific vision of the future of lightweight speleology stretching out before me.

After some deep wading in large round chambers and traversing around those white formations in the river, we reached the SIEFON. White walls reach down through clear water; it looks like an underwater pitch leading to further unguessable cave .... Fred & I, although normally quite sane, understood the urge to go cave diving as we sat silently and looked down.

The way out was enlivened by Fred exploding a carbide dump into his face ("Ah! Classique!" said Victoria when we told him) and by Fred and I both falling in the water and getting totally soaked when climbing around a bit of cave we needn't have been in in the first place. We were cold and a bit disgruntled by the time we caught up with the others at the bottom of the long prussik out, but agreed that the sight of the SIEFON had been worth risking our necks on Catalonian rigging for!

(87)

Troll Suits Comments. (D. Hursley)

Problems. Breast pocket stitching wears through quickly so pocket falls off. Poppers break easily (the head snaps off. I (Dave H.) have lost two poppers. Hood - good design but could be either bigger or more stretchy.

Advantages: V. hard wearing - they have stood up very well to many hard trips down 1215.

Dave C - Gy for The best suit I've had - after 7 serious trips it has only 2 small holes in the knees. It is much better (seams esp) than the Troll I had 2 yrs ago; and compared to last yr's Petzl, magnificent - that was virtually unusable after 3 trips + required hrs + hrs of mending.

Velcro is too narrow and loses its stickiness. Hood too small.

Ian H. I have the (3 years) old design of suit, which has the old ex-house seams. The seams are superior to the new ones, since they only fall apart when abraded right through (this suit has taken 3 years of very hard caving to wear out) The points where my suit finally went were the

forearm seams, and a knee seam (This will obviously be affected by one's caving style). The new suits definitely fail prematurely at the breast pocket seam, but also show evidence of being less long lasting in the other seams such as the leg seam. Some suits have split not on the seam directly but along the line formed by the seam backing material, presumably due to the different stiffnesses of the seam and neighbouring material.

All in all, the new Troll suit is still better than the Petzl, but now only marginally. The new suit does not have the outstanding performance that the old suit had, that lead me to recommend it to my caving colleagues, but is still v.good. Other points; The front seam needs poppers all the way down (why were they omitted?) and thicker velcro. The suits also do not fit some of the tall, thin people well, apparently. The hood needs re-designing. It is too restrictive.

After 3 years, my suit has about 15 pinprick style holes, 3 1" tears in the RH knee, a 3" split in the RH knee seam, and has required re-inforcing patching on the forearm seams and one underarm seam.

12/8/84 Ian H. (Solo) (Almost) 12/5

The day of the abortive detackle: My intention was to follow Phils, Phil D, + Ledge to help with the deep detackle, after they had completed the survey. En route, I was to take notes of the rigs on all the pitches. There was no permatrace left, so I had to use bits of paper, which became increasingly difficult to write on, particularly after I dropped the plastic bag containing them down a pitch into a pool of water. At Gesellschacht I abseiled into a mid air knot - rather to my surprise, as the pitch is a complete free-hang. The sheath rope had broken at the site of a rub on the earlier rig. I spent a little time getting wet, and getting prussikers out of bags.

At Grand Mal, I met Phil Duncan who gave me the bad news that the compass was totally fogged. Indeed it was: not even the sighting line was visible. Something akin to staring at tissue paper.

I obtained the permatrace from Phil D and copied out my notes discovering that the information for the previous 7 pitches had become unreadable. Continuing in, I met Phil S and Ledge at the Heath. A brief chat, and I continued in, deciding to take a calculated risk to see the Xitu and finish my notes.

Soloing out was slow and rather lonely. My glasses kept steaming up, which was very annoying when I was trying to examine the rigs on the pitches for which the information had been lost. No further mishaps, and I exited at about

4.00 am. At camp, rather to my surprise, I met Jedyn, who had been left behind by Phil S in the upper streamway, had had great difficulty route finding, and had eventually got to camp only ¾ an hour before me.

(88)

17/8/84 The Great Debackle

Intl: Bowels now have changed from full on to full off. I don't know what my body is doing, but I prefer this version of it. At least I can now form wave 1 in safety, so I thought Ha Ha.

Wave 1 (me) got up at 0600 and was down 12/5 at 0800. Everything was planned: I would attempt to speed the debackling by getting as much done early in the morning as I could and ph Phil S. (Wave 2) would follow a couple of hours later.

Unfortunately, my now rather well-known desire to re-do rigs that I don't like got the better of me, so and I pulled up the rope at Gesellschacht (knotted at the nib) and cut it, relying to knot with a nice, safe, long tail. I then abseiled down, changed over to pass the knot, changed to back to abseil, and .... abseiled off the end of the rope.

I landed in a 2 foot deep pool, 15 feet down completely unhurt, my impact completely cushioned by the water as I landed in abseiling position with no time for thoughts (such as WHERE? WHAT? or having ever a very small part of my life flash unpleasantly before my eyes) and instinctively The rope was clearly out of reach, I observed, wetly, lighting my carbide light (mistakenly)....

To be continued.

(10)

S.I.E. del C.E.A.
Viladomat, 152
080015 BARCELONA tel. 2544056

ll

19 August 1984

I (Philip) walk up from Lagos with a light pack + collapse at Aris. Various others discuss heroic carrys and detackling trips and I moan gently as a means of putting my point of view. 3 hours later I wake up to a deserted campsite - still totally knackered, however, after discovering the restorative effects of bread dipped in strawberry soup (very hot in the stove tent) and driven by a raging thirst, I decide that this is a good time to test out the Sargent Groundwalking Rig. A quick check reveals that no bits have been stolen by Asturian Bandits so I set off: Hmm - surprisingly comfortable system given the general decrepitude of the component wonky ankles, sore feet, dodgy knees etc. Recommended for short distances only, with no

tackle bags – with this system these should be hauled (by other people). Nothing drastically wrong with any particular part but the system is definitely not as efficient as it should be, I'll try oiling the cams and soaking everything in a strong ~~caffeine~~ caffeine solution...

Later: Shit! I've slept for another 2 hours – what is wrong with me?! Sun now behind clouds so my brains are boiling a little less furiously; better go & help derig & haul tackle: Cistra → Arico Camp. Photos 17-25.

Shit Alors! Having fettled gear etc (untouched since El Deriggo Grande) it is now 1800 – too late to be really useful to go underground. For the Good of the Expedition I will forgo my opportunity to have a look at the Cistra pitches and put my knackered limbs to better use moving gear on the surface. Ow. Argh.

19-20. No sign of SB, SR, IH or DR at Cistra – or of tackle bags. Met Jan on return & since conditions are perfect, am now going to Top Camp to bring a load down to Arico this evening. ETA at Arico ~22:30.

Jan
19-30 – No sign of anyone at Cistra so am taking gear to Lagos. Back early morning to ferry gear from cave. Wine in food tent.

Jan

Got back to Top Camp at 22-31, bit hairy getting back in the dark but fairly clear and Skyline always visible. No sign of Vicky & Chris up there, but Testyn's rucksack + cag. were in the stove tent (the only one still there). Brought a load down. Rather surprised not to find anyone back yet at Ario so began to prepare a meal. Tried to find logbook + failed - eventually found it 20 mins later when I tripped over it going for a pee, had been left on open ground - no doubt clearly visible in daylight.

20 AUGUST 1984 P.M. Sargent 10-55

Steve R, Dave H & Jan emerged at about 23-30 having brought all the bags out to Cista. No sign of Jan & Steve G's photo/survey trip except for some distant noises: they got back some four or five hours later.

Steve R. & Jan now gone to Lagos carrying personal gear, Steve G, Dave R & Jan have gone to finish dismantling Top Camp & to try & find out what happened to Testyn, Chris + Vicky. I am taking 55 mins for the round trip to Cista + back (carrying 2 tackle bags + a few things etc) and my knees are killing me. Will do washing up to recover & then get on with it again.

15-45 Dave our bit for International relations by giving tea to 4 germans who had come up from Lagos to find the Refugio shut. Better get on with things I suppose. Dave H. came up & helped get some drags out of the entrance - I will do one more carry then take my gear down to Lagos & then do ~~a~~ 2 or 3 hours dye detector collecting

Arrival of Iestyn + Chris at 17-28, Chris absolutely knackered.

Gesellschaft

1 (Xitu) 1/95 +40 270 1st stn in Xitu. Data estimated: stn #1 ~1/25 m above and 1/5 W of Xitu #1 (see 1979 survey).

(94)

Stn	Sloping Distance	Inc	Dec	
1	15/5	+6	058	W end of Xitu entrance.
2	20/0	+5	155	1·55 m above E end of Xitu entrance.
3	30/0	-7	198	
4	30/0	-9	162	
5	30/0	-3	148	
6	30/0	-2	142	
7	30/0	-4	152	
8	30/0	-10	166	
9	30/0	-3	149	
10	4/83	+2	082	to Hellloop?
11	30/0	-8	106	
12	30/0	0	120	
13	30/0	-7	133	
14	30/0	-2	140	
15	30/0	-10	115	
16	30/0	-11	108	
17	30/0	-12	113	
18	30/0	-3	136	
19	30/0	-10	131	
20	30/0	-13	102	
21	30/0	-32	081	
22	30/0	+12	074	
23	25/5	-10	101	
24	30/0	+12	084	

Note these are 'from' bearings, each 'to'.

(95)

Stn	Sloping Distance	Inc	Dec
25			

'FROM' (96) 'TO'

Sta	Sloping Distance	Inc	Dec	
25	30/0	-18	151	
26	30/0	-8	076	
27	30/0	-11	113	
28	30/0	-9	108	
29	30/0	+13	127	
30	30/0	+18	095	
31	30/0	+13	145	
32	30/0	+12	108	
33	30/0	-8	141	
34	30/0	0	132	
35	22/4	-6	109	
36	11/85	-41	110	
37	4/7	-52	081	Red SIE circle in entrance depression of 12/5.
38	8/7	-66	109	
39	4/8	-45	063	
40	12/4	-90	—	
41	4/1	+15	346	
42				

LOBC2
XC25
Lost
C37 (really 38)
C38 34
C39 40
C40 41
C41 (42)

41	4/08	+72/5	326	C204
204	3/18	+15	305/5	File as Cistra 2 C203a
203 204/5	5/09	-59	254	C202
202	3/84	-90	—	C201
201	7/92	+44/5	237	C200
200				

Stn	Sloping Distance	Inc	Dec	LABEL
41	4/0	-52/S	338	C43
43	3/0	-35	005	C44
44	4/2	-73	360	C45
45				
45	3/85	+67	204/S	C207
207	0/80	+57	130/S	C206
206	5/98	+86	020/S	C205
205	3/44	+53	233/S	C203
203				
45	28/2	-90	—	C46
46	3/S	-35	035	C47
47	6/8	-77	033	C48
48	8/10	-90	—	C49
49	4/0	-33	030	C50
50	5/6	-78	025	C51
51	7/2	-41	327	C52
52	4/2	-50	019	C53
53	9/8	-90	—	C54
54				
54	4/36	-6	210	C215
215	6/53	+16	183	C214

File CISTERN 2

(98)

Stn		Sloping Distance	Inc	Dec	
214		4/50	+27	242	C213
213		4/67	+61	179	C212
212		1/69	-90	—	C211
211		2/35	-8	175	C210
210					
54	304	1/88	-5	138	C307
303		5/02	-10	285	C302
302		14/68	+90	—	C301
301		4/08	+36	107	CISTRA3 C330
330	-330	3/21	-31	159	Closed with 333 line
331	-331	3/26	-39	325	C332 vector file
332	-332	3/00	-49/5	025	called CISTR4
53	-333				
331		5/74	+46	144	C333
333					
302		8/22	+51	303	C304
304		3/81	+2	200/5	C305
305		1/41	-4	262	C306
306		5/43	-18	226	C307
307		5/00	+56	313	C308
308		5/24	+14	014/5	C309

(49)

Stn	Sloping Distance	Inc	Dec	
309	5/82	+7	269	C310
310	4/08	+53	264	C311
311	7/73	+24	250	C312
312	0/50	+90	—	C313
313	11/20	+33	288	C314
314	27/29	+20	256	C315
315	10/67	+33	205	C316
316	16/31	+13/5	246	C317
317	8/50	+41/5	166	C318
318	5/28	+29/5	246	C319
319	7/53	+7	229	C320
320	8/00	+7	241/5	C321
321	14/94	-27	285	C322
322	5/21	-0/5	208	C323
323	5/09	-9	257	C324
324	5/27	+33	232	C325
325	2/30	+20	264	C326
326	6/53	? -6	255	C327

↑ Checked

54	1/9	-11	025	C55
55	2/2	-24	130	C56
56	2/5	+16	020	C57
57	5/0	-18	107	C58
58	0/7	0	197	C59

Stn	Sloping Distance	Inc	Dec	
59	4/1	+15	094	C60
60	3/8	-49	080	C61
61	5/6	-26	036	C62
62	3/1	+18	152	C63
63	4/0	-12	065	C64
64	3/9	+47	063	C65
65	3/9	+32	110	C66
66	6/6	-39	058	C67
67	7/9	+38	128	C68
68	12/4	-28	109	C69
69	8/9	+23	140	C70
70	7/4	-52	112	C71
71	5/2	-83	090	C72
72	6/4	-26	101	C73
73	8/2	-8	186	C74
74	4/13	+20	094	C75
75	7/5	-90	—	C76
76	4/37	+42	148	C77
77	3/44	-5	145	C78
78	3/66	-6	068	C79
79	4/14	-44	016/5	C80
80	3/61	+1	067	C81
81	5/22	0	136	C82
82	5/42	-25	043	C83

(101)

Stn	Sloping Distance	Inc	Dec	
83	7/43	-35	133	C84
84	4/12	-27	131	C85
85	3/49	+4	075	C86
86	6/22	-3	117	C87
87	3/29	? +6	216	C88
88	2/16	? +5	130	C89
89	5/14	? +5	152	C90
90	5/45	-90	—	C91
91	1/67	+33	040	C92
92	8/10	+29	182	C93
93	3/77	-12	105	C94
94	10/73	-90	—	C95
95	2/80	+46	171/5	C96
96	3/74	-32	125/5	C97
97	44/74	-82	139	C98
98	6/09	-8	060	C99
99	5/23	+7	149	C100
100	4/00	-60	123/5	C101
101	2/87	-32	071	C102
102	4/26	? +20	118	C103
103	10/4	-90	—	C0M104
104	4/49	0	087	C105
105	2/68	-21	073	C106
106	3/63	+16	067	C107

Stn	Sloping Distance	Inc	Dec	
107	3/48	-6	108	C108
108	2/8	-14	061	C109
109	5/03	+23	081	C110
110	3/08	-10	072	C111
111	2/65	+11	111	C112
112	3/85	-2	024	C113
113	3/42	-30	074	C114
114	5/52	-6	003	C115
115	4/37	+9	311	C116
116	3/5	-18	019	C117
117	4/32	+2	328	C118
118	7/21	-31	018	C119
119	4/85	-19	319	C120
120	6/00	-21	074	C121
121	2/58	-19	352	C122
122	5/08	-1/5	034	C123
123	2/42	+57	004	C124
124	3/9	-26	099	C125
125	4/6	-45	056	C126
126	4/5	-17	087	C127
127	4/1	-4	012	C128
128	3/056	-6	125	C129
129	2/14	-11	168	C130
130	2/6	-25	224	C131

Stn	Sloping Distance	Inc	Dec	
131	3/41	-18	176	C132
132	3/35	-25	099	C133
133	8/51	-4	059	C134
134	3/13	+2	305	C135
135	4/25	+10	351	C136
136	4/09	-21	060	C137
137	5/84	-42	348	C138
138	7/98	+7	077	C139
139	7/6	-28	050	C140
140	5/1	-46	040	C141
141	4/6	0	346	C142
142	20/5	-90	—	C143
143	9/7	+16	037	C144
144	4/45	-10	014	C145
145	3/243	-54	098	C146
146	8/33	-3	052	C147
147	5/71	+23	036	C148
148	18/91	-90	—	C149
149	13/0	-3	016	C150
150	6/94	-45	033	C151
151	3/89	-53	068	C152
152	4/49	-18	005	C153
153	34/76	-90	—	C154
154	9/87	0	036	C155

(103)

Stn	Sloping Distance	Inc	Dec	
155	5/85	+32	013	C156
156	12/89	+19	067	C157
157	6/20	-9	356	C158
158	6/28	-70	352	C159
159	6/0	-59	069	C160
160	15/02	-48	066	C161
161	6/84	-90	—	C162
162	5/80	0	057	C163
163	3/46	+11	111	C164
164	7/45	+8	074	C165
165	9/55	+6	042	C166
166	3/38	+7	331	C167
167	10/56	-35	024	C168
168	2/62	-59	069	C169
169	8/10	+2	116	C170
170	6/47	-14	141	C171
171	4/60	0	124	C172
172	3/96	? +15	132	C173
173	4/89	-1	189	C174
174	5/5	+12	129	C175
175	11/61	-72	193	C176
176	5/08	-4	118	C177
177	3/09	+5	188	C178
178	17/52	-52	081	C179

Sta	Sloping Distance	Inc	Dec	
179	6/18	-90	—	C180
180	6/30	+13	029	C181
181	12/83	-90	—	C182
182	12/13	+26	022	C183
183	10/20	-27	021	C184
184	7/28	-18	034	C185
185	3/89	-17	359	C186
186	3/95	+3	036	C187
187	15/71	-90	—	C188
188	12/36	-10	016	C189
189	4/39	+36	304	C190
190	16/53	-43	013	C191
191	7/87	-46	094	C192
192	15/39	-46	008	C193
193	5/44	-23	007	C194
194	3/96	-7/5	106	C195 (shall & 222)
222	2/81	-35	084	C223
223	8/29	-30	112	C224
224	6/29	-8	039	C225
225	5/48	-5	339	C226
226	7/47	+1	088	C227
227	4/31	-19	033	C228
228	3/32	-5	306	C229
229	1/82	+3	231	C230

105

Stn	Sloping Distance	Inc	Dec	
230	3/42	+3	317	C231
231	4/55	-29	038	C232
232	5/16	-28	125	C233
233	7/00	-35	079	C234
234	12/17	+12	005	C235
235	2/64	+11	046	C236
236	3/39	-10/5	149	C237
237	8/13	-34	130	C238
238	2/60	+10	071/5	C239
239	7/72	-90	—	C240
240	1/70	+90	—	C241
241	5/69	-6	005	C242
242	2/16	+9	321	C243
243	3/64	0	073	C244
244	6/32	+9	349	C245
245	1/75	+4	325	C246
246	3/92	-21	047	C247
247	2/58	-9	065	C248
248	15/00	-90	—	C249
249	6/67	+24	063	C250
250	35/39	-90	—	C251
251	7/99	-26	104	C252
252	7/80	-90	—	C253
253	8/97	+1	134	C254

106

Stn	Sloping Distance	Inc	Dec	
254	10/49	-5	138	C255
255	2/92	-90	—	C256
256	2/30	-9	190	C257
257	3/10	-1	085	C258
258	3/15	-2	044	C259
259	5/23	-32	010	C260
260	3/79	-14	097	C261
261	9/29	-58	096	C262
262	82/1	-90	—	C263
263	15/1	0	096	C264
264				Bolt on Damplucation Pitch
~~262~~	~~15/1~~	~~0~~		
~~264~~				

B1

Instructions for reading meteorological instruments

Instruments to be read and reset/emptied at 0900 hours each morning

1. Rain gauge:

(i) Insert in ground so that rim is 12 inches above ground surface

(ii) Remove upper funnel section and empty internal bottle and internal bucket of water. Replace bucket, bottle and funnel.

(iii) To measure rainfall, pour water (or melted snow, if applicable) from bottle into measuring cylinder. Read amount of precipitation from base of meniscus.

(iv) If the raingauge bottle has overflowed into the bucket, add water from bucket to measuring cylinder before taking reading.

(v) Record reading in tables in this log book.

(vi) If rain has fallen, but this is insufficient to give a reading on the measuring cylinder, record "Tr" (= trace) in the log book.

(vi) If something goes wrong and you spill the raingauge contents (or something similar), be honest; it's better to have no record for that day than a misleading one.

(vii) Repeat from step (ii).

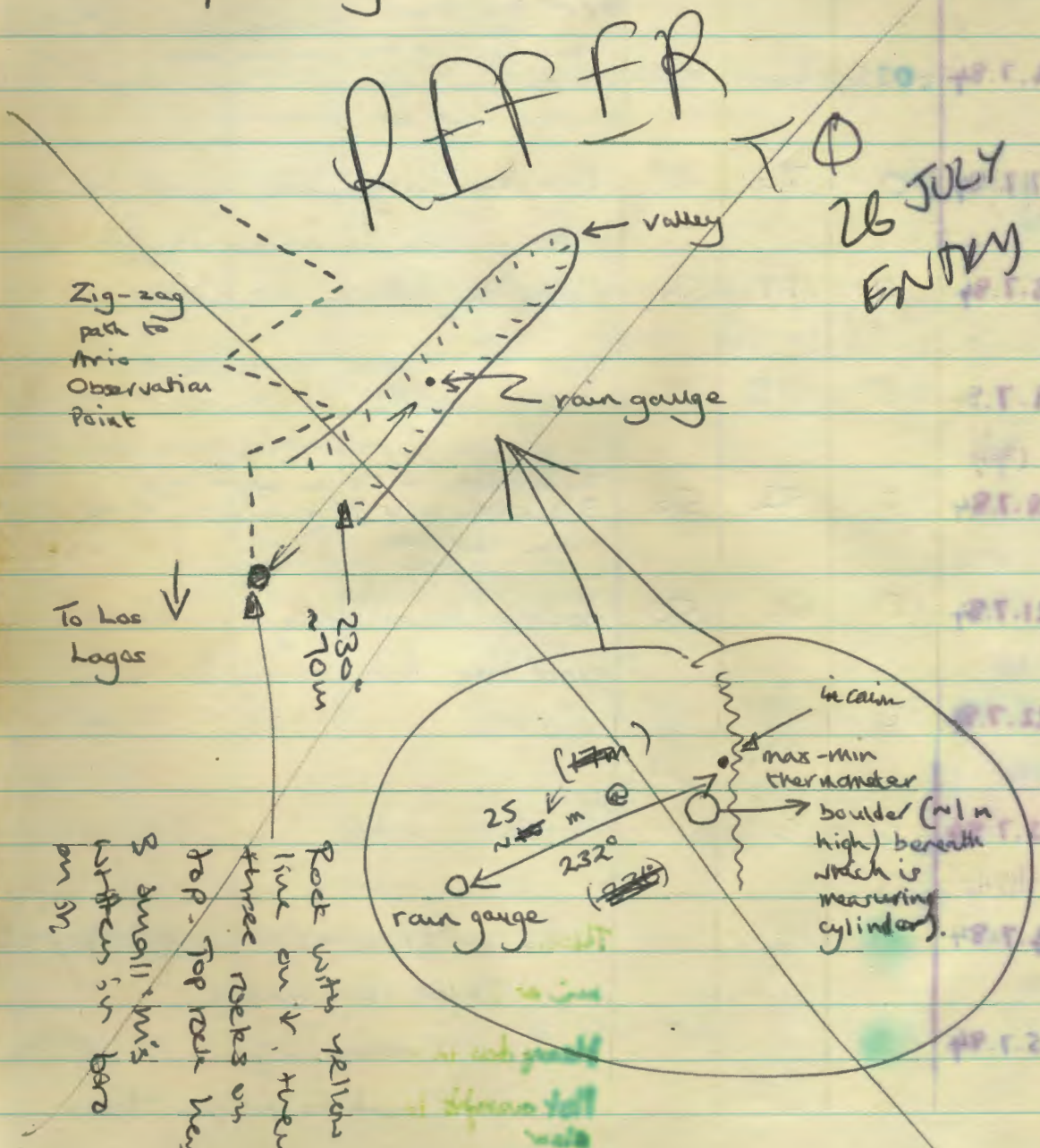
2. Maximum and minimum thermometers:

(i) In the tables in this log book, record the temperatures from the base of the metal sliders in each thermometer.

(ii) To reset the thermometers, use the magnet to drag the sliders back into contact with the mercury (try turning the magnet the other way around if this proves to be difficult!).

(iii) Replace the thermometers in their original position (if it was necessary to move them).

Thanks for all your help.



DATE (0900 h)	RAIN FALL	TEMPERATURE (°F) MAX	MIN	COMMENTS, OBSERVATIONS
S 14.7.84	/	/	49	Min = 49°F, no record for rf or max (stn established previous afternoon:- max recorded = 83°F). 0/8 cloud cover. Estim ht of cloud top ~ 1000 m a.s.l.
S 15.7.84	Tr	73	48	~~[illegible]~~ In Mist ending at top of Zig-Zags Readings made at 1.45pm
M 16.7.84	.025	66	44	Ground frost at Ario previous night. Top of clouds over Lagos about our height. Drifting mist over plateau.
T 17.7.84	0	76	48	clear skys measuring cylinder found broken at base of rock under which it was hid
W 18.7.84	0	97	54	Clear sky hazy at Lagos.
T 19.7.84	0	92	61	Clear sky above, some cloud lower over Lagos
F 20.7.84	0	82	56	Top of mist ~ 50 m below stn. 3/8 cloud cover ("mackerel sky" + some nimbo-cumulus).
S 21.7.84	0	66	50	mist in lower valleys 3/8 cloud cover, high mainly cirrus
S 22.7.84	0	} 86	} 52	
M 23.7.84	0			No cloud - haze over Lagos.
T 24.7.84				Thickish mist c. 14·45 → 17·00, max 200yd vis min at 20feet. Clear in evening
W 25.7.84				Heavy dew in morning. Mist overnight towards Rio Cares gorge. Otherwise clear

B5

DATE (0900h)	RAIN FALL	TEMPERATURE (°F) MAX	MIN	COMMENTS, OBSERVATIONS (GRATUITOUS OR OTHERWISE)
				Sorry! Please convert my °c ones!
T 26.7.84	0			Heavy dew today 3/8 cloud cover in morning
F 27.7.84 (PMS)	0	15°c	11°c	Clear skies. 0/8 cloud cover all through morning and all day.
S 28.7.84	0	~~F~~ 23°c	14°c	Tor peaks hazey otherwise clear.
S 29.7.84	0	21°c ~~16°c~~	16°c	
M 30.7.84 10-15 (PMS)	TRACE (120 DROPS)	27°C	15°C	Squally Showers. Last Night overcast high up, 8/8 COVER. Skyline visible. Today Similar but stays wind + rain.
T 31.7.84 10-46 (PMS)	0.5 bottle 9.9 in con. Rain gauge	22°C blown over!	12°C	Thick Cloud. Rain all night. Not so windy a yesterday see log.
W 1.8.84	~~0~~	20.5°C	8°C	
T 2.8.84 (PMS)	0 10-56			9/8 Clear, hot.
F 3.8.84	Not read.			RAINED ALOT. HEAVY MIST.
S 4.8.84	8.1	7	23	cloud at ~~Top~~ a bit above Top Cup. COLD BUT CLEAR – BIT OF RAIN to below top cup.
S 5.8.84	0.95	9.5	10	Clear now with clouds light
M 6.8.84	0	4.7	15.1	1/8 Cloud cover.

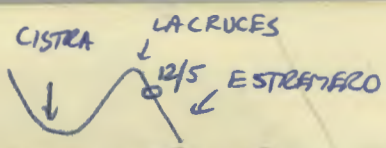
DATE (0900 hours)	RAIN FALL (mm)	TEMPERATURE (°C) MAX	MIN	COMMENTS, OBSERVATIONS
T 7.8.84	0	20.2	7.4	0/8 Cloud Cover Top of mist at ~1300 m
W 8.8.84 10-30	1.9	20.5	7.0	8/8 cloud cover mist/low cloud. rain started after 10-30 again
Th 9.8.84	Reading at Lagos			Misty + overcast. cold.
F 10.8.84 0935	0.20	10.3	6.9	Mist. Visibility ~ 40 m.
S 11.8.84	0	11.5	7	clear sky 0/8 cloud cover
S 12.8.84	0	13.5	7.5	Sunny. No cloud. Warm.
M 13.8.84 0802	Tr	18.2	10.5	1/8 Cloud. No mist in valley
T 14.8.84 1000	0.15	21.3	10.6	Mist. Visibility ~ 15 m.
W 15.8.84 1420	0.20	17.8	8.5	Mist
T 16.8.84 0925	0.15	19.1	8.6	Mist. Visibility ~ 30 m.
F 17.8.84 10.10.	Tr.	9.7	4.5	No cloud, warm, sunny. (overnight frost at Afiko)

(B7)

S

M 20-8-84 | | | T high cloud, overcast intermittently, occasional gusts of v. strong wind.

ESTREMERO



B8

Surveying Trip:- 4th August (Surveying Trip 2) - 12/5 from Survey Station 37A to Survey Station 57 Tape Man:- Dave H, Clino Man:- Phil R Book Keeper:- Nicola.

Station	Compass Reading	Clino Reading	Distance between 2 in m	Leg depth.	total depth
75 - 74					106.63
38 → 37A	274	-20	4/13	-1.41	105.22
75 - 76					
38 → 39	-	-90	7/5	+7.05	112.72
77 - 76					
40 → 39	328	-42	4/37	-2.92	109.80
77 - 78					
40 → 41	145	-05	3/44	+0.30	
79 - 78					
42 → 41	248	+06	3/66	+0.38	
79 - 80					
42 → 43	016/5	-44	4/14	+2.88	113.36
81 - 80					
44 → 43	247	-01	3/61	-0.06	113.30
81 - 82					
44 → 45	136	0	5/22	0	
83 - 82					
46 → 45	223	+25	5/42	+2.29	
83 - 84					
46 → 47	133	-35	7/43	+4.25	
85 - 84					
48 → 47	311	+27	4/12	+1.87	
85 - 86					
48 → 49	075	+04	3/49	+0.24	
87 - 86					
50 → 49	297	+03	6/22	+0.326	122.28
87 - 88					
50 → 51	216	+06	3/29	-0.344	
89 - 88					
52 → 51	310	-05	2/16	-0.188	
89 - 90					
52 → 53	152	+05	5/14	-0.45	121.29
90 - 91	-	-90			
53 → 54	~~Vertical~~	~~Vertical~~	5/45	+5.45	
91 - 92					
54 → 55	040	+33	1/67	-0.91	
92 - 93					
55 → 56	182	+29	8/10	-3.93	
93 - 94					
56 → 57	105	-12	3/77	-0.78	121.12

Hope these are all OK.

BH

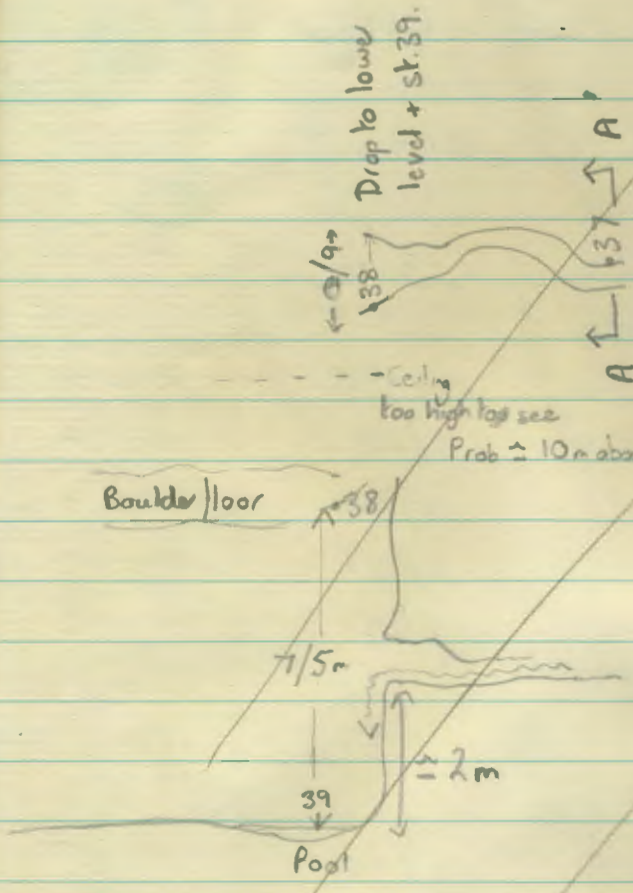
Heights of Stations above floor

Station No:	Measured Height above floor in m	Estimated. Width at that height in m (only done occasionally)
~~37~~	~~7/5~~	~~=0/9~~
38	7/5	0/9
39	0	2/5
40	2/7	1/3
41	2/9	1/5
42	2	0/7
43	0/5	0/4
44	2/5	0/5
45 42	1/8	1/2
46 43	1/9	1/0
47 44	1/1	
48 45	2/2	
49 46	2/7	
50 47	2/5	
51 48	3/0	
52 49	2/8	
53 50	5/45	
54	2/1	1/8
55	1/2	
56	1/35	
57		

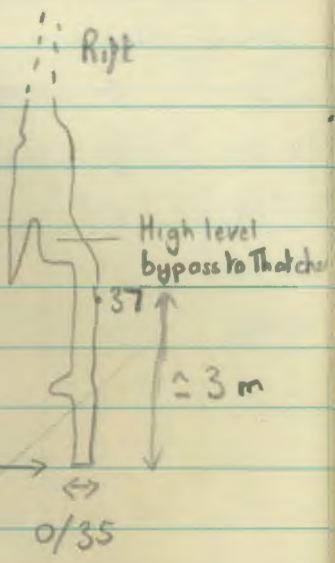
B10

IGNORE

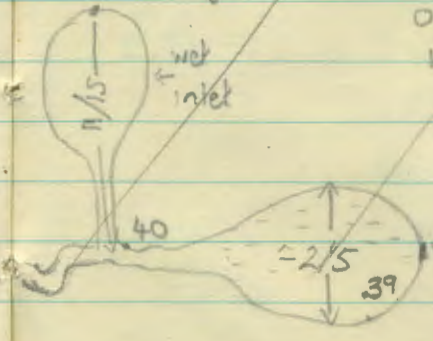
PLAN. 1



Cross Section A A'

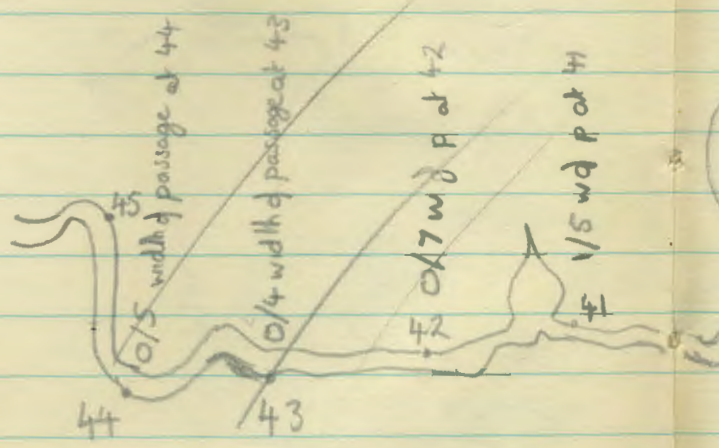


Subsidiary station 40b. 2/5m above ground.
045° from 40
11/15 from 40 distant



:- reps H_2O pool.

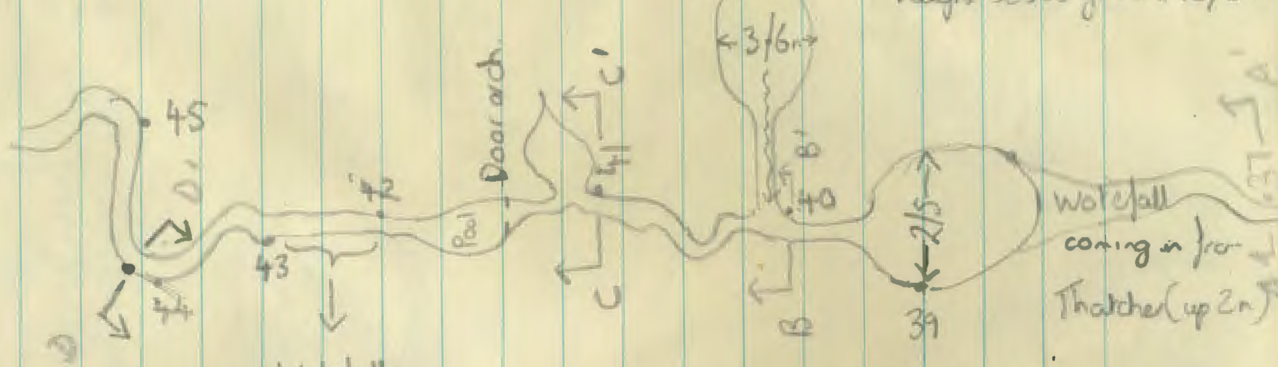
(B11)


0/5 width of passage at 44
0/4 width of passage at 43
0/7 width of P at 42
1/5 width of P at 41
45
44
43
42
41

PLAN 1

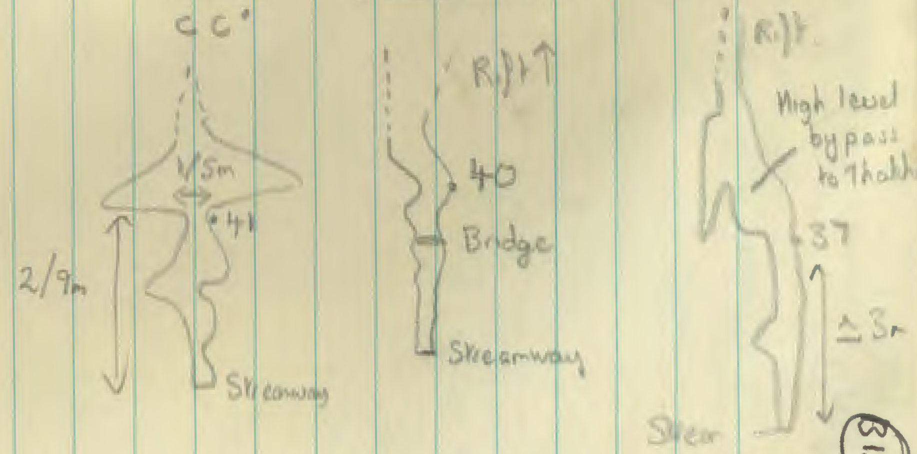
Subsidiary Station 40b. Compass of 045 to 40. Dist = 11/15
Height above ground 2/5m

← Plan 2



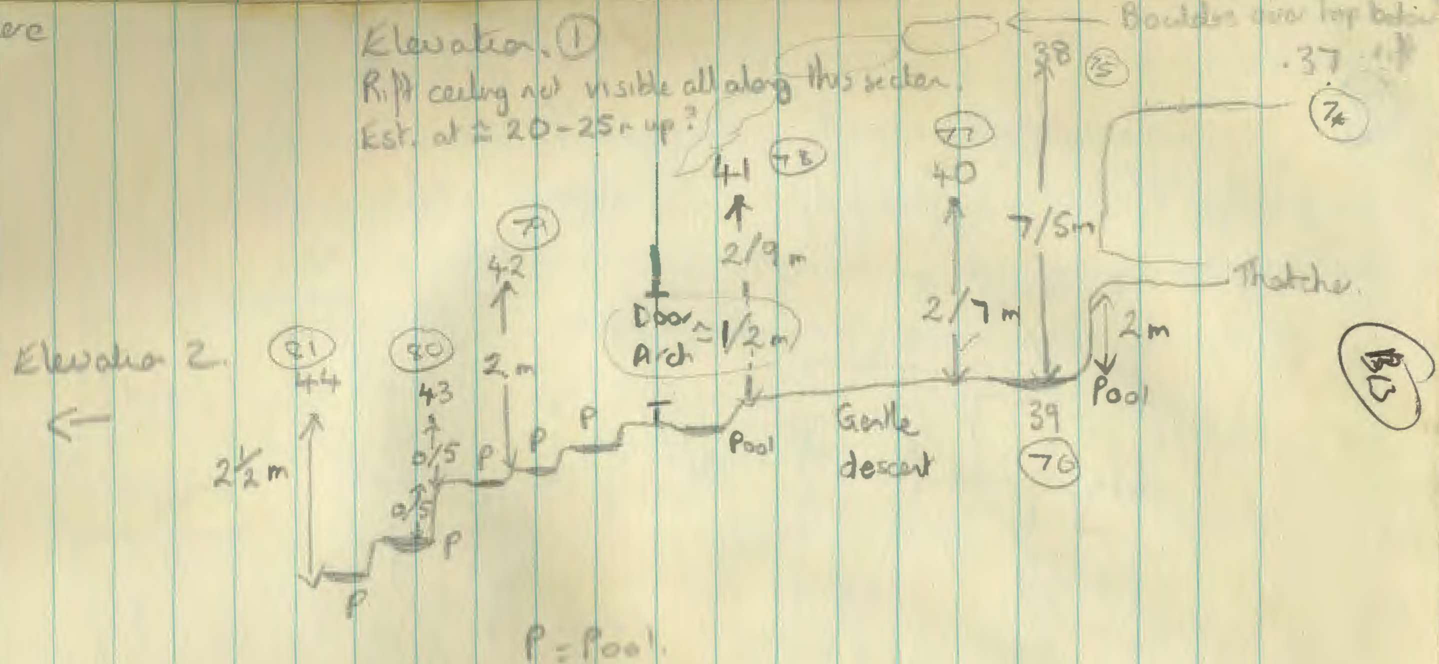
Waterfalls + pools at stream level

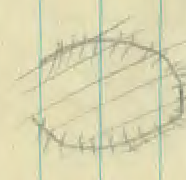
38 above 39.



Nicola D.

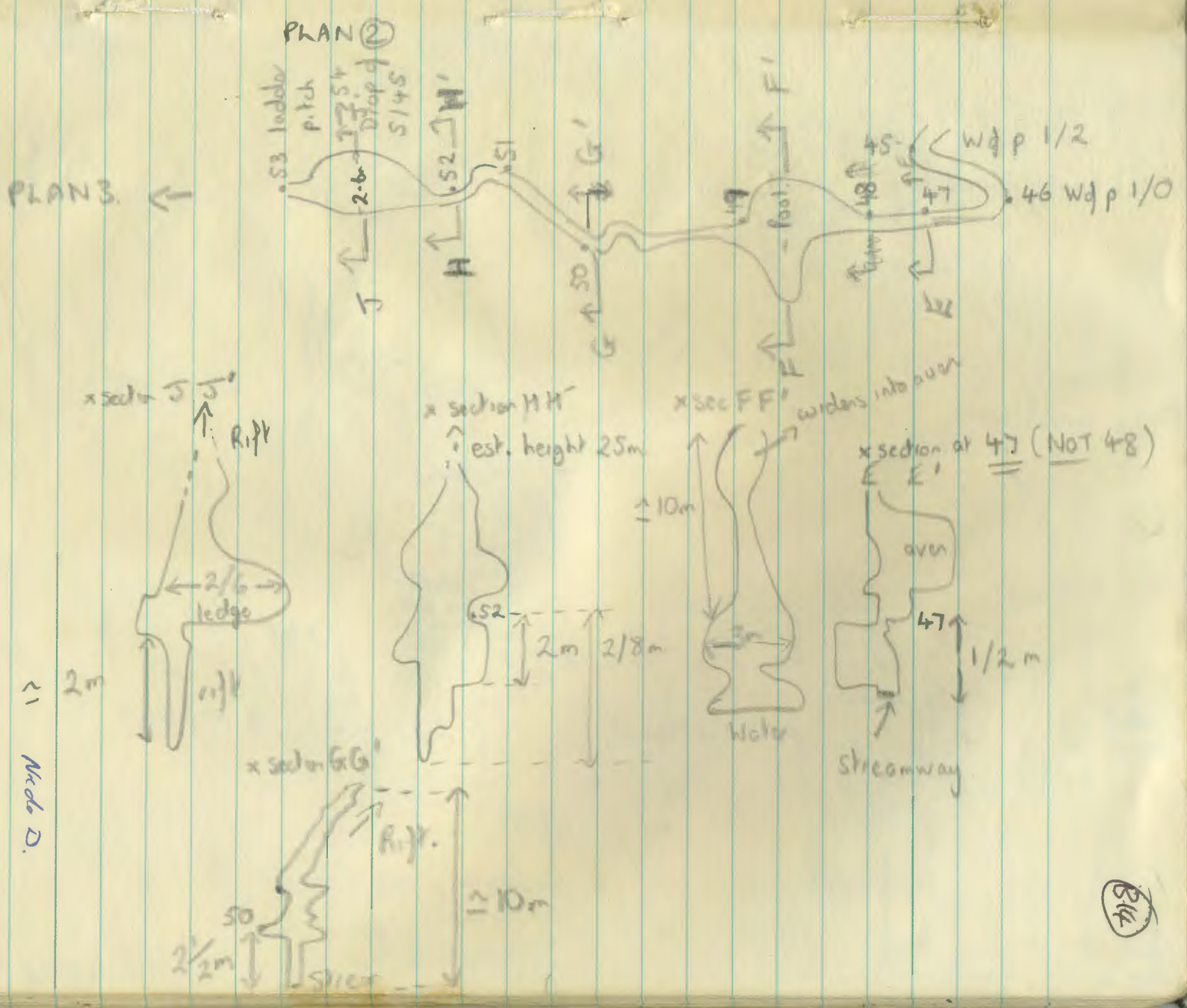
NB P = Pool here



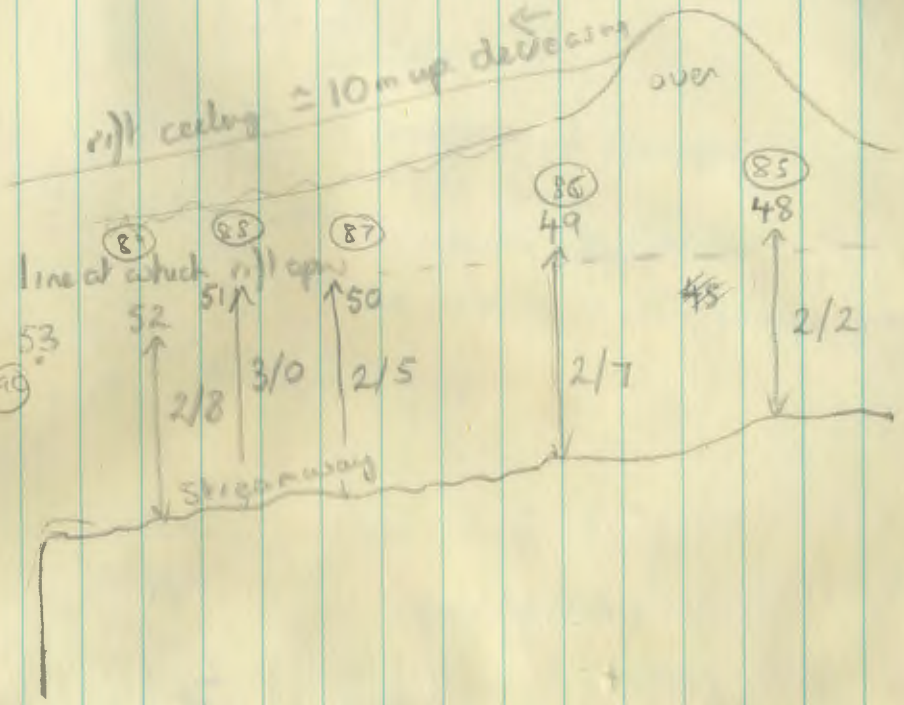


OOPS.

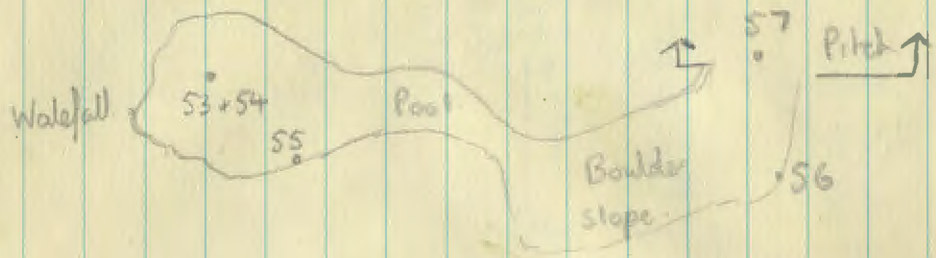
Nicola D.


PLAN ②
PLAN 3.
53 ladder pitch
Drop of 5'4"
2.6
52
51
J
H
H'
G'
50
G
F'
49
foot
48
47
46 Wd p 1/0
Wd p 1/2
45'
E
E'
F
x Section J J'
R. pk
2/6 ledge
2m
x section H H'
est. height 25m
52
2m
2/8m
x sec F F'
widens into pool
± 10m
Water
x section at 47 (NOT 48)
overs
47
1/2 m
Streamway
x Section G G'
R. pk.
50
2½m
Splash
≃ 10m
Note D.

Elevation along here difficult since rift ceiling variable and inaccessible in many parts, streamway descending via numerous ledges. Strata generally tight rift opening out 2/5 → 3/0 m above streamway at attitude at stations taken & then narrowing above. General idea thought:-

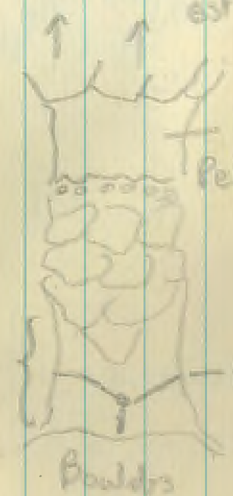


PLAN (3)



x section of pitch

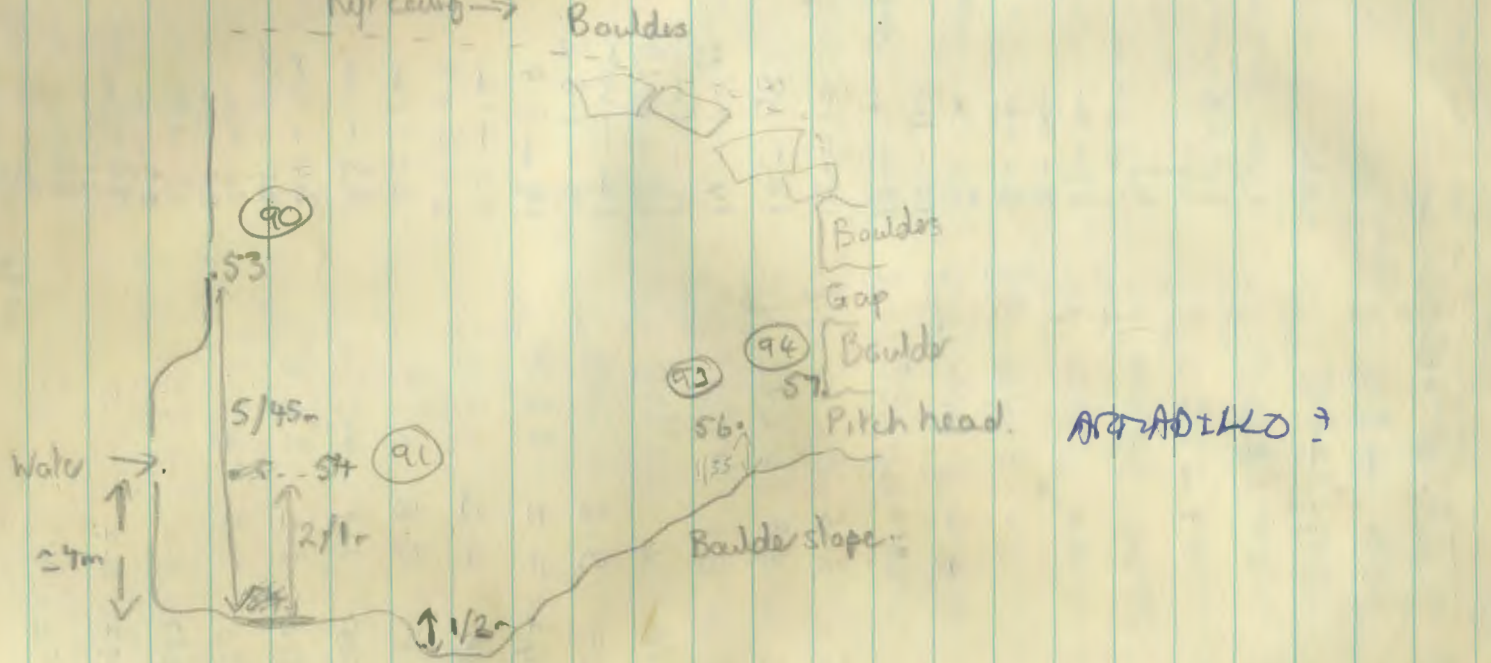
est height above top of boulder slope of ceiling = 6 m



Nicole D.

(B46)

ELEVATION (3)



54 beneath 53.

→ Into Cave

(I seem to have changed from which side I look at it here.....)

is this -ve ?! PMS.

backsight: inc. & depth have same sign
foresight: inc. & depth have differ signs.

518

12/5.

depth + ↓ down, into cave
depth − ↗ up, out of cave,

S-S	Inc°	Bearing°	Distance m	~~Height~~ depth	total depth
37 - 38 1→2	52	81	4.7	−3.7	
39 - 38 3→2	+66	289	8.7	+7.95	4.25
39 - 40 3-4	−45	63	4.8	+3.39	7.74
P 41 - 40 5→4	+90	0	12.4	+12.4	20.14
42 - 41 6→5	−15	166	4.1	(+1.06)	20.14
43 - 41 7→5	−52½ (130%)	158	4.0	+3.17	23.31
44 - 43 8→7	+35	185	3.0	+1.72	25.03
44 - 45 8→9	−73	0	4.2	+4.02	29.05
P 46 - 45 10→9	+90	0	28.2	+28.2	57.25
46 - 47 10→11	−38	35	3.5	+2.16	59.41
48 - 47 12→11	+77	213	6.8	+6.62	66.03
P 48 - 49 12→13	−90	0	8.1	+8.1	74.13
50 - 49 14→13	+33	210	4	+2.18	76.31
50 - 51 14→15	−78	25	5.6	+7.62	83.93
52 - 51 16→15	+41	147	7.2	+4.71	88.64
52 - 53 16→17	−50	19	4.2	+3.22	91.86
P 54 - 53 18→17	+90	0	9.8	+9.8	101.66
55 - 54 19→18	+11	205	1.9	−0.36	101.30
56 - 55 20→19	+24	310	2.2	+0.89	102.19
56 - 57 20→21	+16	20	2.5	−0.69	101.50
58 - 57 22→21	+18	287	5.0	+1.54	103.04
58 - 59 22→23	0	197	0.7	0	
59 - 60 23→24	+15	94	4.1	−1.06	101.98

Station	Height above floor
1	} on vert wall
2	} — 2m above shelf
3	}
4	}
5	— 1.8 m
6	— nil
7	— nil
8	— nil
9	— 1m above ledge
10	— 1.8
11	— 1m (roof)
12	— 1.8
13	— 1.8
14	— 0.5 m (roof)
15	— 1m.
16	— nil.
17	— vert
18	— 1.8 m. 54
19	— 1.8 55
20	— 1m 56
21	— 1.8 57
22	— 1m 58
23	— 1m 59
24	— 4m 60
~~25~~	~~— 1.8m~~ 61
26	— 1m 62
~~27~~	~~— 2m~~ 63
28	— 1.8 64
~~29~~	~~— 1m~~ 65
30	— 3m 66
31	— 1m 67
32	— 1m 68
~~34~~	~~— 1.8m~~ 70
35	— 1m 71
36	— 1m 72
37	— 0.5m 73
38	— 2 m 74

(B19) needs checking. WHAT THE HELL!

depth = r sin θ.

$\sin\theta = \frac{h}{t}$

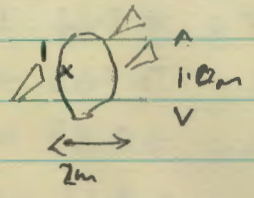
$h = t \sin\theta$

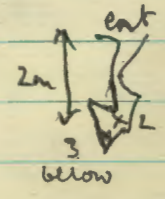
S→S	Inc°	Bearing°	Distance		PMS 3/8/84
61 - 60 25→24	+49	260	3.8	+ 2.87	104.87
61 - 62 25→26	-26	36	5.6	+ 2.46	107.31
63 - 62 27→26	-18	332	3.1	- 1.08	106.23
63 - 64 27→28	-12	65	4.0	+ 0.83	107.06
65 - 64 29→28	~~+47~~ -58	243	3.9	- 3.23	103.83
65 - 66 29→30	+32	110	3.9	- 2.06	101.77
67 - 66 31→30	+39	238	6.6	+ 4.14	105.91
67 - 68 31→32	+38	128	7.9	- 4.85	101.06
69 - 68 33→32	+28	289	12.4	+ 5.80	106.86
69 - 70 33→34	+23	140	8.9	- 3.48	103.38
71 - 70 35→34	+52	292	7.4	- 5.84	97.54
71 - 72 35→36	-83	90	5.2	+ 5.15	102.69
73 - 72 37→36	+26	281	6.4	+ 2.80	105.49
73 - 74 37→~~38~~ 37A	-8	186	8.2	+ 1.14	106.63

B2e

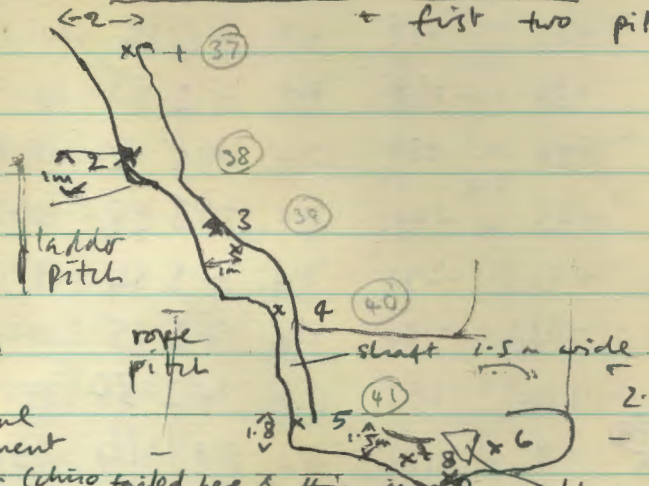
First station = red SIE circle marked at entrance

Plan of entrance:

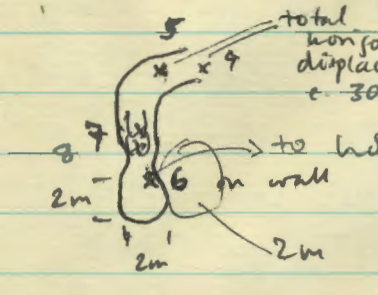


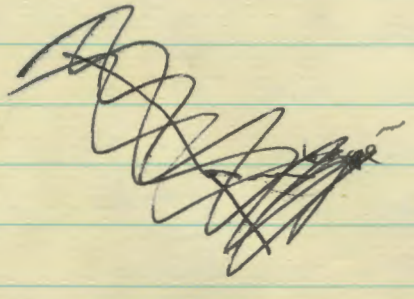


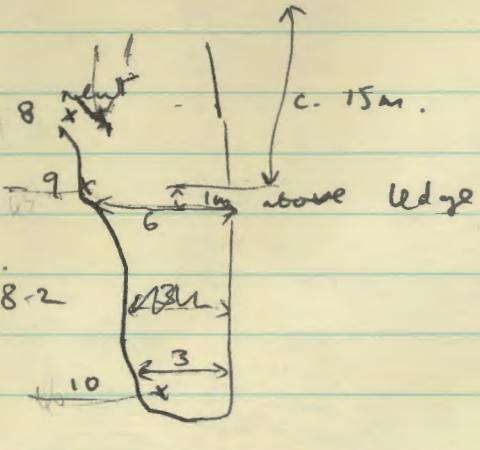
Elevation of entrance + first two pitches.



Plan above squeeze (newt)

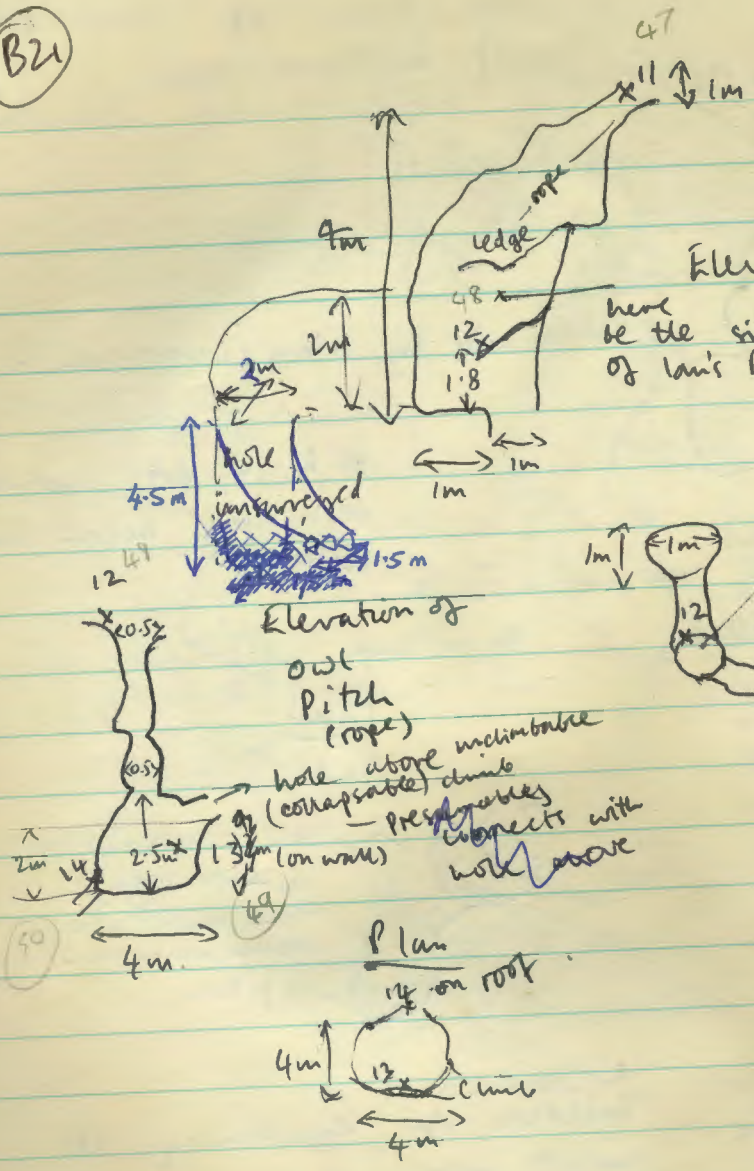






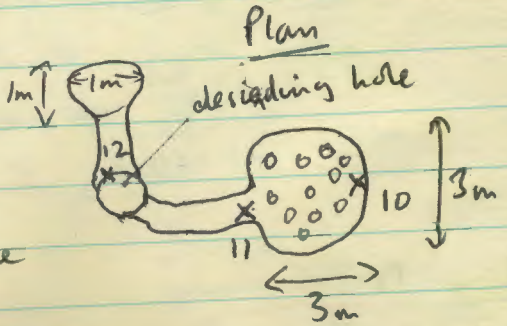
Elevation of Oast House

B21



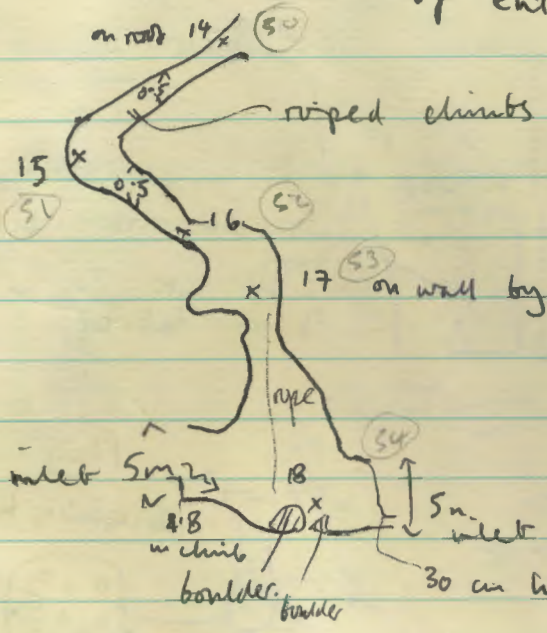
Elevation below East House

here be the site of Ian's Balls up



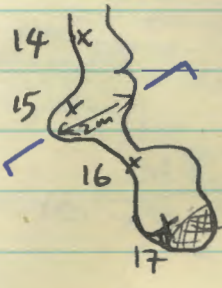
Elevation of last pitches of Entrance series.

B22



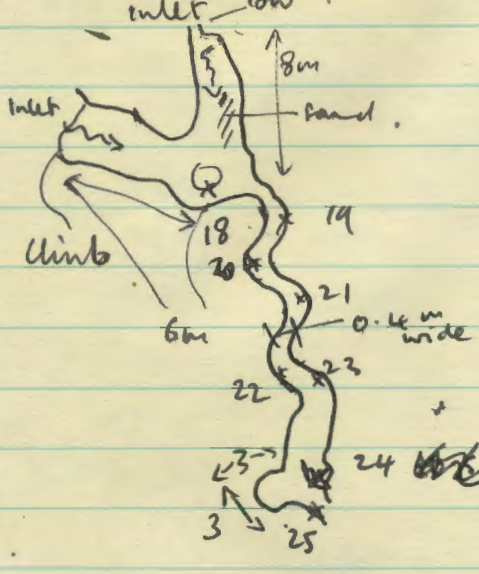
17 & 18 are actually vertically below one another

Plan



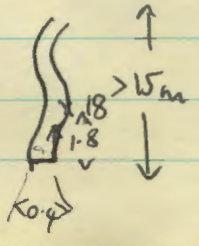
see cross-section (next page)
Hence, modification of passage width necessary.

Plan of Streamway



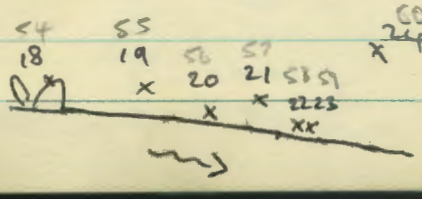
In the interests of expediency the inlets were not surveyed.

XSection



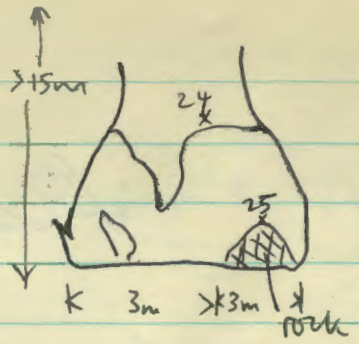
Elevation (to satisfy law)

and every one else

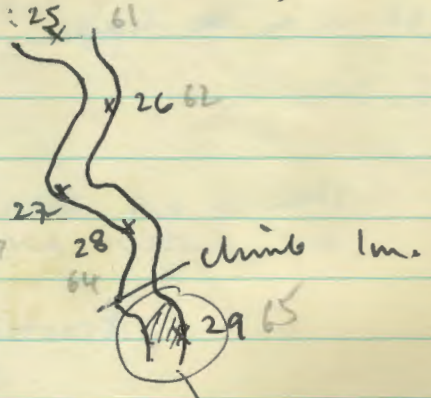


B23

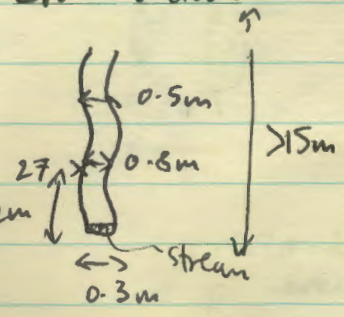
Xsection at 24:

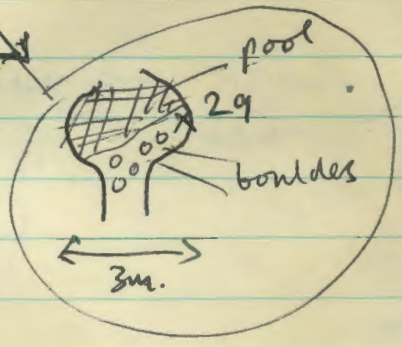


Plan of streamway

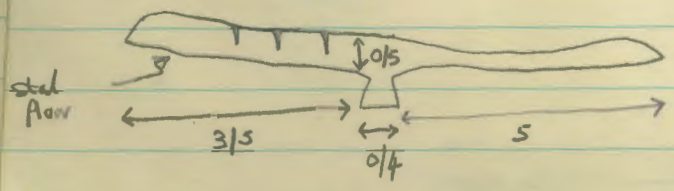


Cross section



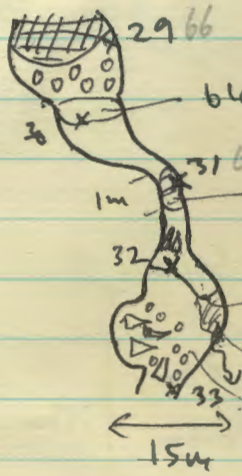


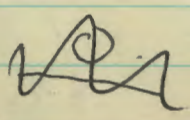
Cross-section (into cave) between stns 15 and 16.



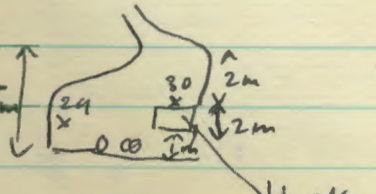
B24

Plan of Streamway





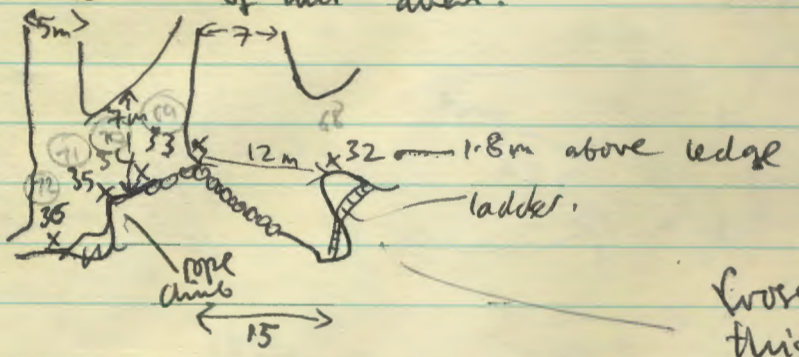
Xsection



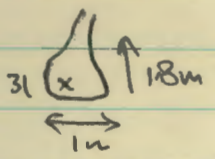
32 is on the ledge.

this is not BIGG aven. but another aven.

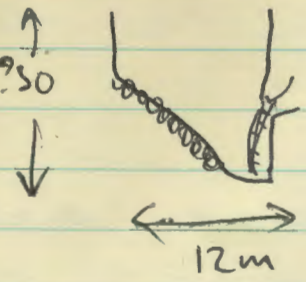
Elevation ~~Xsection~~ of this aven.



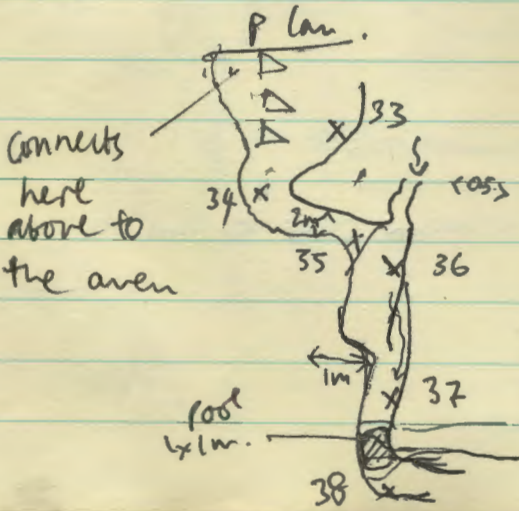
Xsection



Cross Section of this aven.

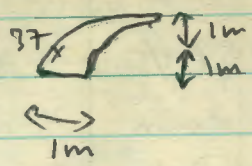


Plan.

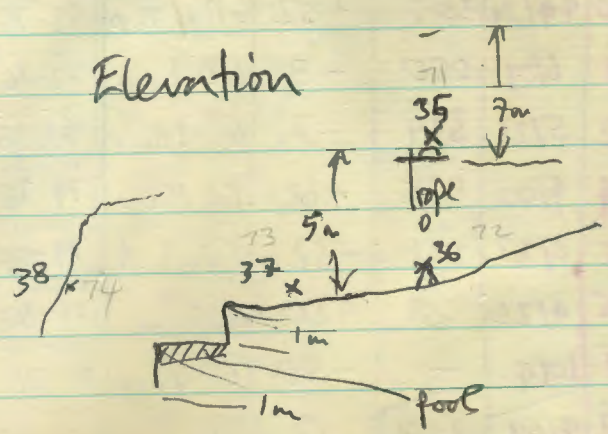


B25

Cross section



Elevation



PHIL ROSE, PHIL DUNCAN + FRED 5/8/82

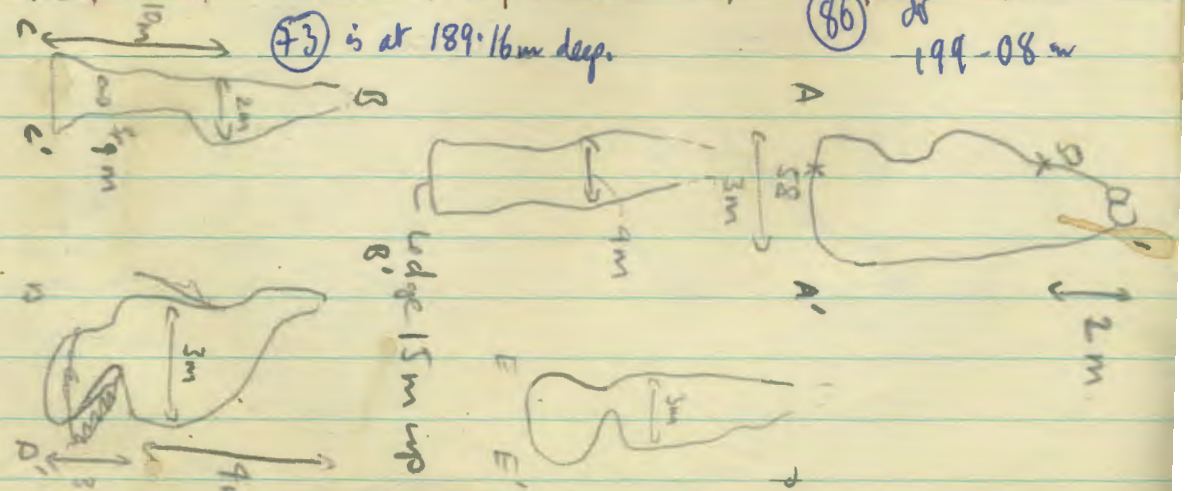
57 is at 121/12m deep.

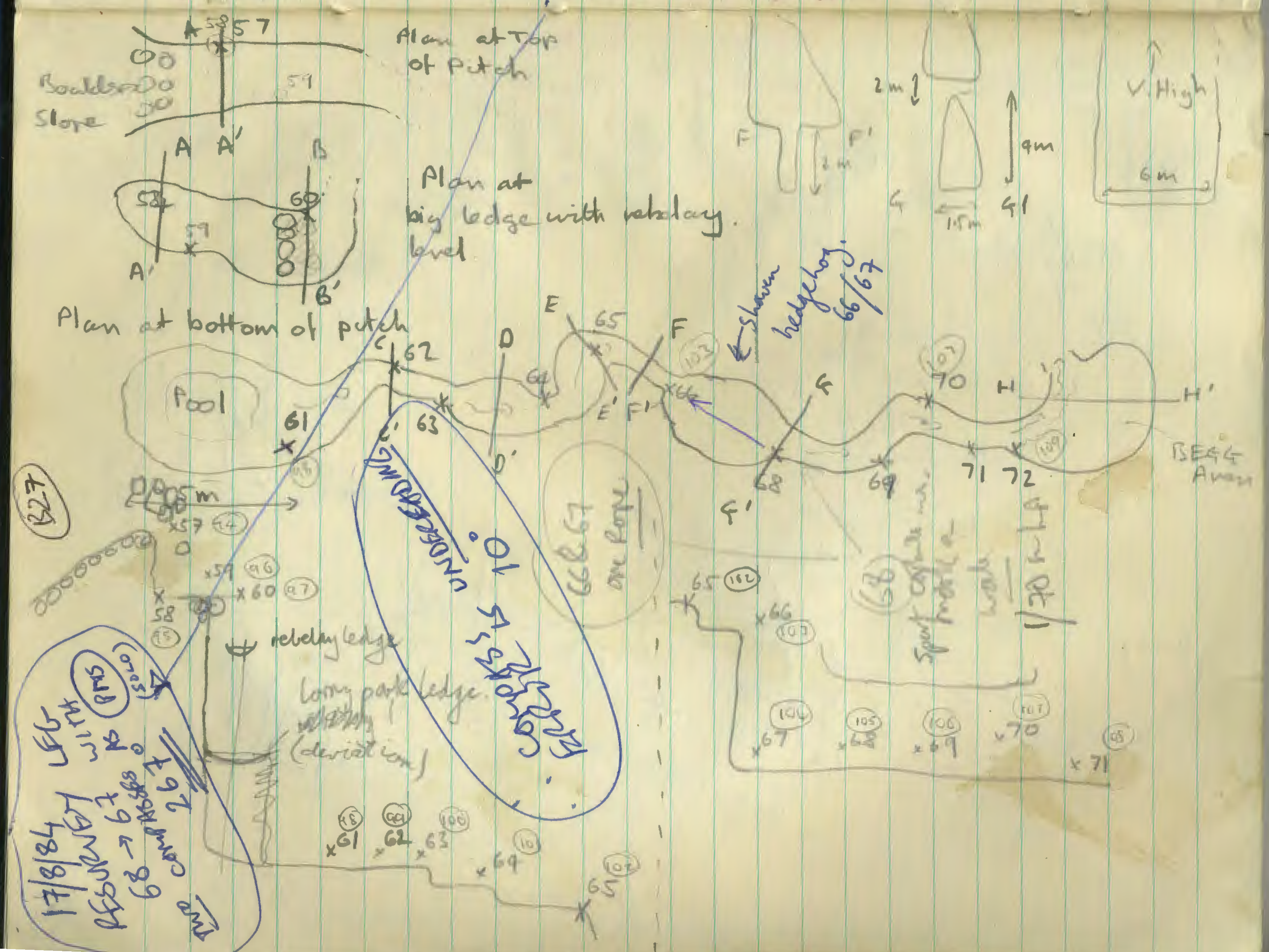
Systematic compass error TOO COMPACT. BLOODY SILLY.

Station	Tape	Compass	Clino	Station Height	Station	Tape	Compass	Clino	Station Height
94-95 57→58	10/73	—	−90	58 — on big ledge	73-72	5/03	251	−23	73 2/5 up
96-95 59→58	2/80	341/5 (171·5)	−46	59 — 1/5m up	110-111 73-74	3/08	062 (072)	−10	74 2·1/2 up
96-97 59→60	3/74	115/5 (125/5)	−32	Fast drop down	112-111 75-74	2/65	281 (111)	−11	75 2·1/2 up
98-97 61→60	44/74	309 (139)	+82	61 — 1/2 up	112-113 75-76	3/85	014 (024)	−2	76 2/5 up
98-99 61→62	6/09	050 (060)	−8	62 — 1 up	114-113 77-76	3/42	244 (074)	+30	77 1/10 up
100-99 63→62	5/23	319 (149)	−7	63 — 1/6 up	114-115 77-78	5/52	353 (003)	−6	78 1/10 up
100-101 63→64	4/100	113/5 (123/5)	−60	64 — 1/5 up	116-115 79-78	4/37	121 (311)	−9	79 1/8 up
101-102 64→65	2/87	061 (071)	−32	65 — on Ground	116-117 79-80	3/5	009 (019)	−18	80 1/10 up
103-102 66→65	4/26	288 (118)	−20	66 — on slope	118-117 81-80	4/32	138 (328)	−2	81 1/20 up
103-104 66→67	10/4	—	−90	67 — 1/7 up	118-119 81-82	7/21	008 (018)	−31	82 1/15 up
105-104 68→67	4/49	257 (087)	0	68 — "	120-119 83-82	4/85	129 (319)	+19	83 2/5 up
105-106 68→69	2/68	063 (073)	−21	69 — 1/5 up	120-121 83-84	6/100	064 (074)	−21	84 2 up
107-106 70→69	3/63	237 (067)	−16	70 — 1/7 up	122-121 85/84	2/58	162 (352)	+19	85 1·5 up
107-108 70-71	3/48	098 (108)	−6	71 — 1/2 up	122-123 85/86	5/08	024 (034)	−1·5	86 1/5 up
108-109 71→72	2/8	051 (061)	−14	72 — 1/8	124-123 87/86	2/42	174 (004)	−57	87 4/5 up
110-109 73-72	5/03	251 (091)	−23	73 — 2/5					

73 is at 189·16m deep.

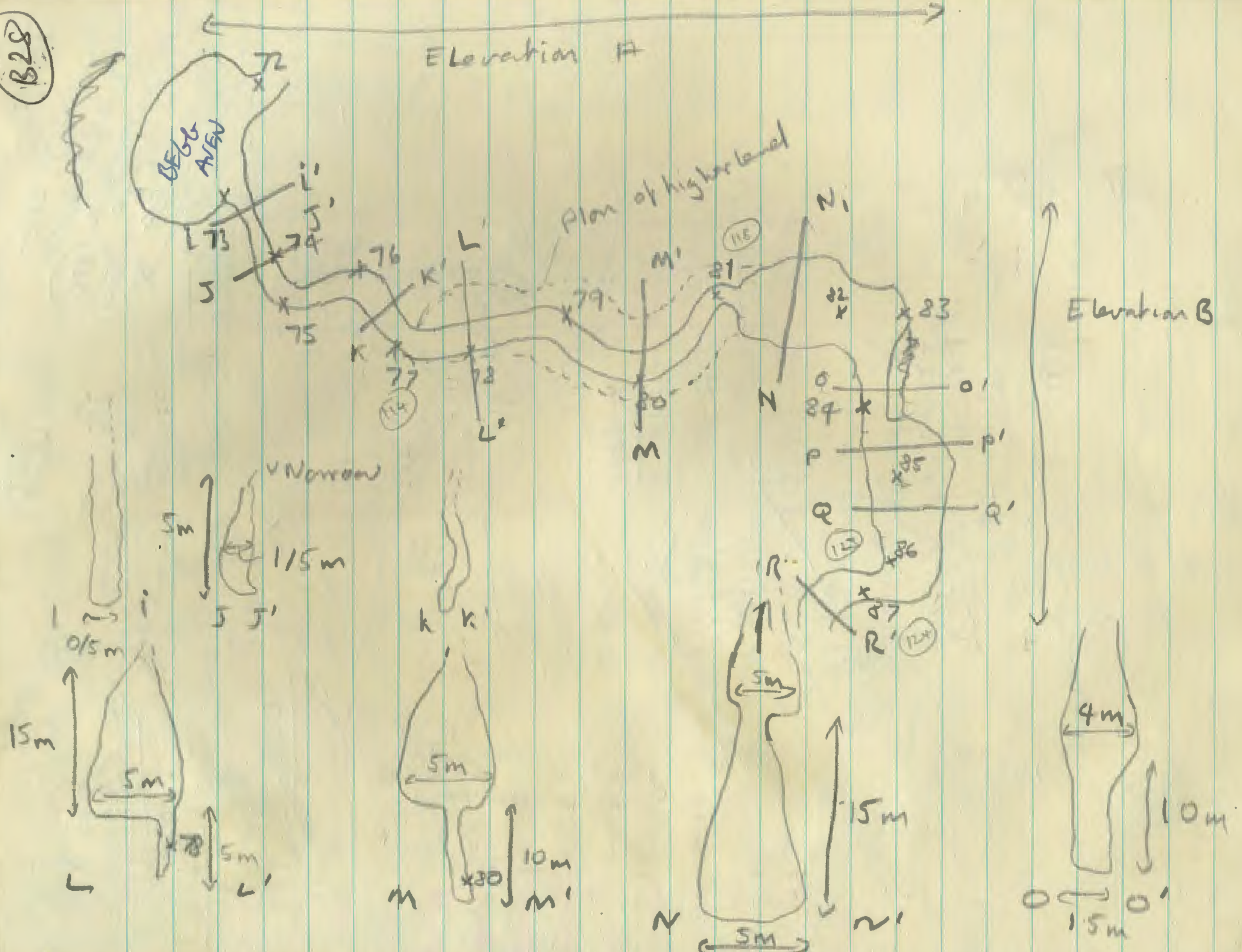
86 is at +99-08 m

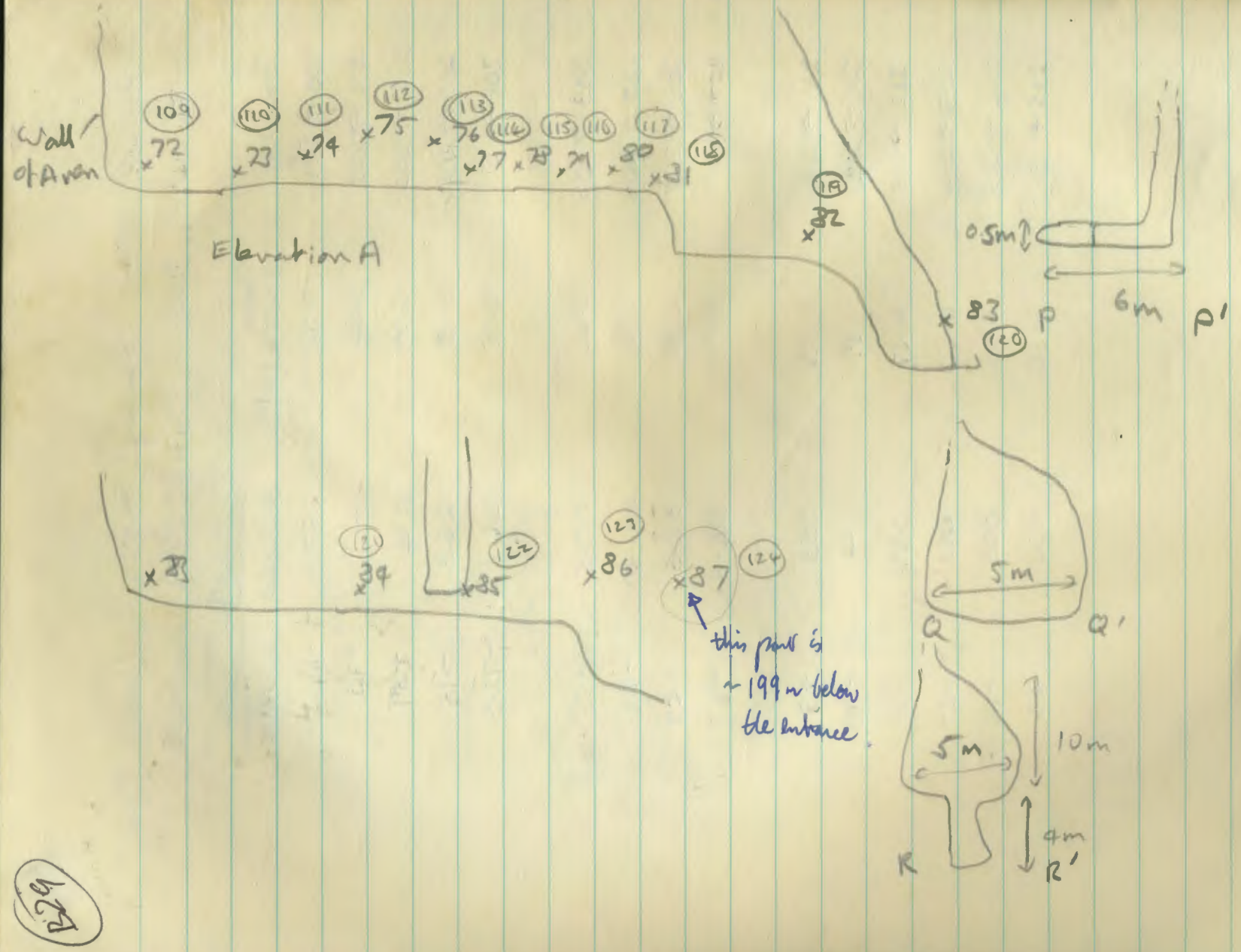




Plan at Top of Pitch
Boulder Slope
V. High
Plan at big ledge with rebelay level
Plan at bottom of pitch
Pool
B27
Shaven hedgehog. 66/67
66 & 67 are Rope
COMPASS ERROR IS UNDERREADING 10°
rebelay ledge
Long park ledge.
(deviation)
17/8/84
RESURVEY LEG
68 → 67 WITH
TWO COMPASSES AS
267°
(PMS)
(SOLO)

B28


Elevation A
BEGG AVEN
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
I
I'
J
J'
K
K'
L
L'
M
M'
N
N'
O
O'
P
P'
Q
Q'
R
R'
Plan of higher level
114
115
123
124
Elevation B
V Narrow
5m
1/5m
0/5m
15m
5m
5m
5m
10m
5m
15m
5m
4m
10m
1 5m


Wall of Avon
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
Elevation A
0.5m
6m
P
P'
5m
Q
Q'
5m
10m
4m
R
R'
this point is
+199m below
the entrance

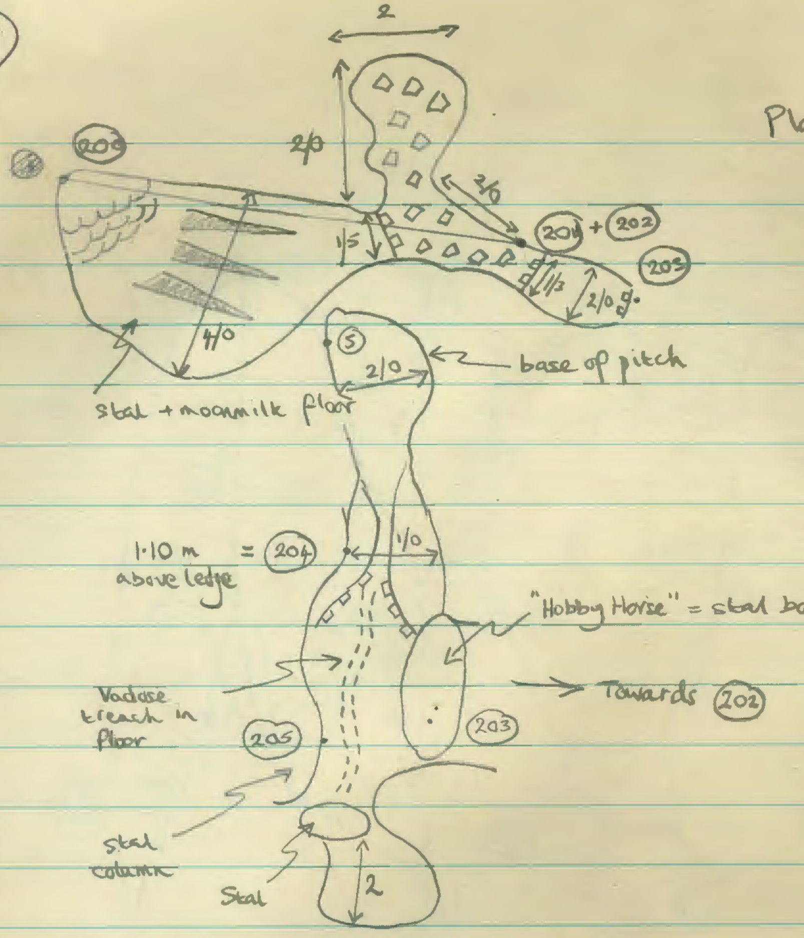
(B30)

6 August 1984 Survey: Stephen G. (book), Phil S. (instruments), Dave H. (tape). SOG equipment.

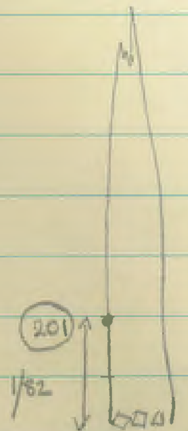
Stn leg	Sloping Distance (m)	(degrees) Declination	Inclination
200 → 201	7.92	057	-44.5
201 → 202	3.84	—	+90
202 → 203	5.09	074	+59
203 → 204	3.18	125.5	-15
204 → 5 41	4.08	146	-72.5
203 → 205	3.44	053.5	-53
205 → 206	5.98	200.5	-86
206 → 207	0.80	310.5	-57
207 → 9 45	3.85	024.5	-67
210 → 211	2.35	355	+8
211 → 212	1.69	—	+90
212 → 213	4.67	359	-61
213 → 214	4.50	062	-27
214 → 215	6.53	003	-16
215 → 18 54	4.36	030	+6

B31

Plans

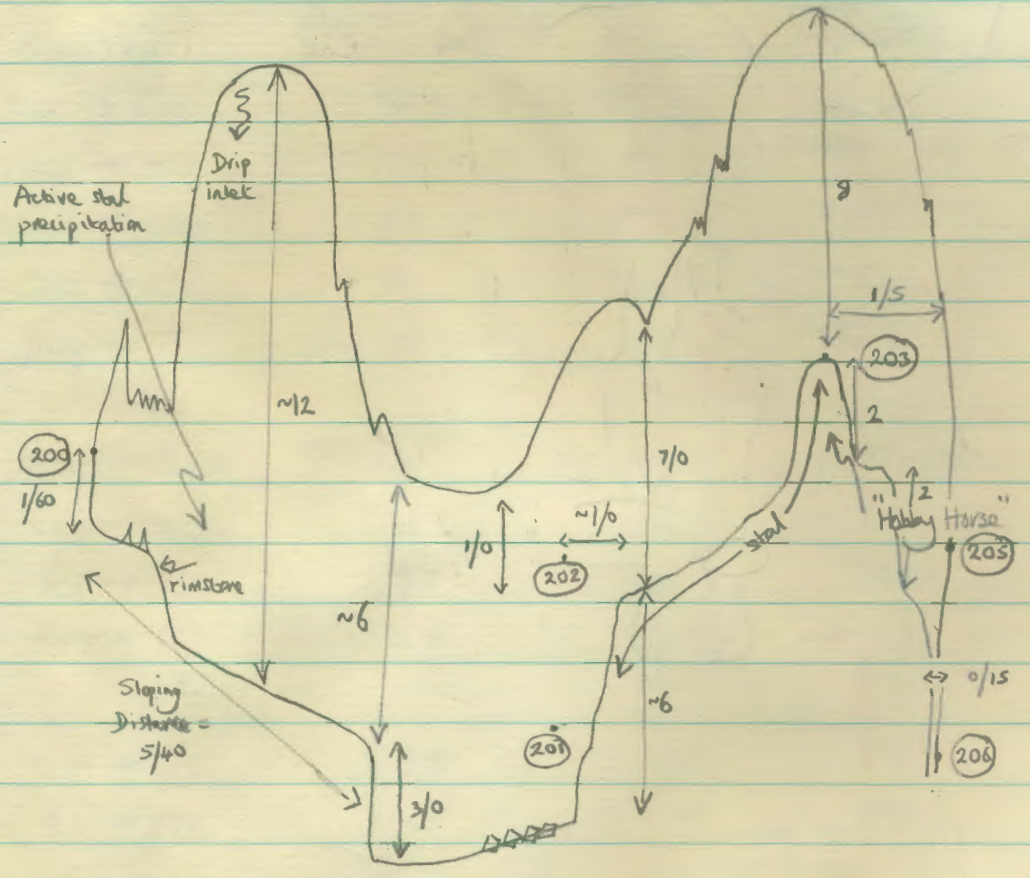


Cross section out of cave



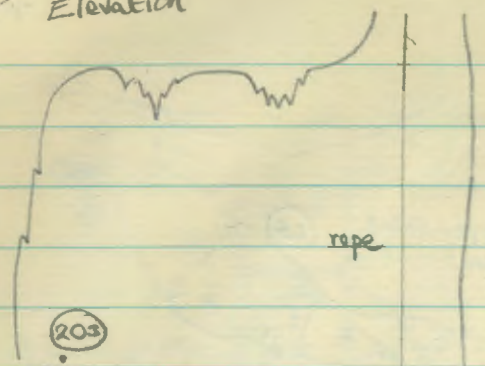
832

Elevation

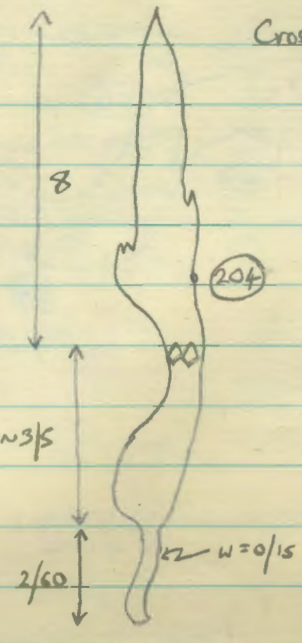


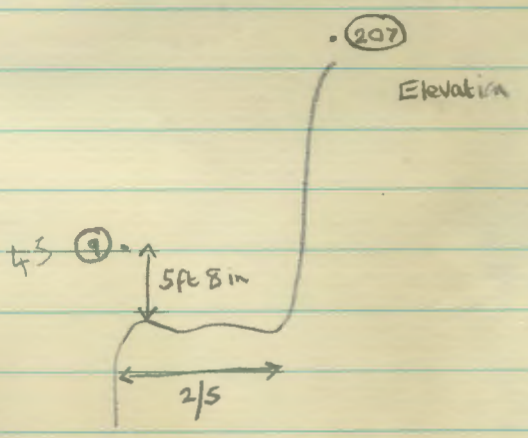
B33

Elevation



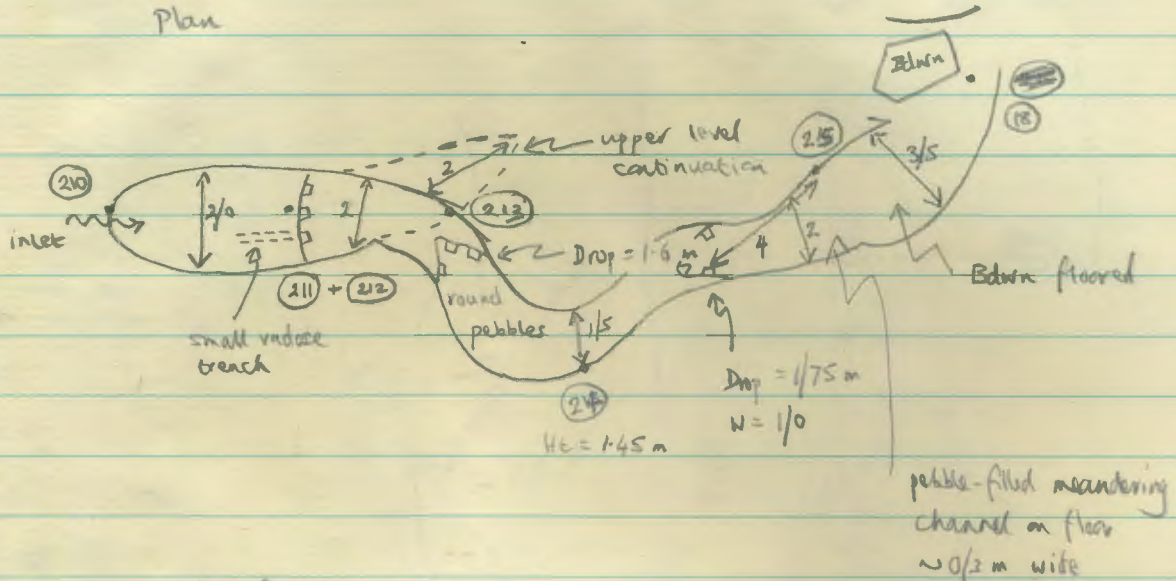
Cross-section into cave

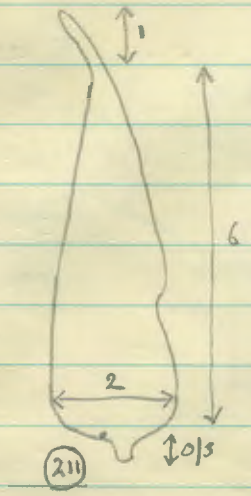




B34

Plan

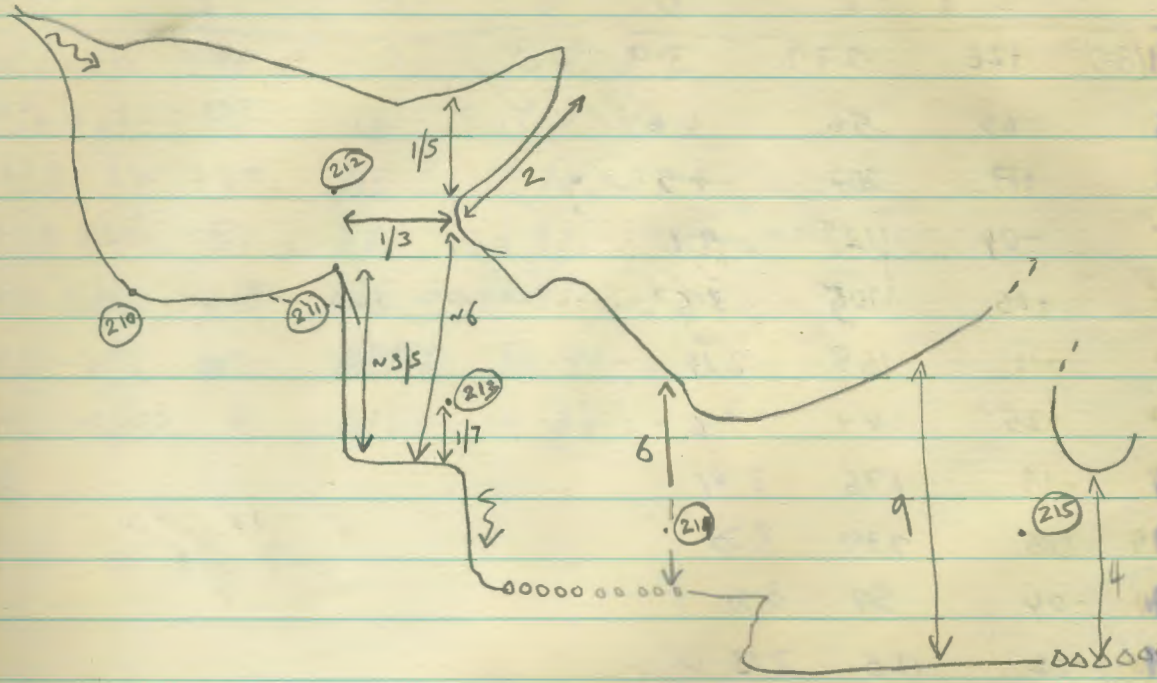




Cross-section out of cave

Ht of stn (18) = 1·8 m

B35



Stream way survey II.

Book RG.
Tape DR
Instruments SW.

B36

S→S.	I.	B.	D.	
A2 → A1(87)	+26	279	3·9	✓
125 – 126 A2 → A3	-45	56	4·6	✓
127 – 126 A4 → A3	+17	267	4·5	✓
127 – 128 A4 → A5	-04	12	4·1	✓
129 – 128 A6 → A5	+06	305	3·6	3·56 on survey sheet
129 – 130 A6 → A7	-11	168	2·14	✓
131 – 130 A8 → A7	+25	44	2·6	✓
131 – 132 A8 → A9	-18	176	3·41	✓
133 – 132 A10 → A9	+25	279	3·35	✓
133 – 134 A10 → A11	-04	59	8·51	✓
135 – 134 A12 → A11	-02	125	3·13	✓
135 – 136 A12 → A13	+10	351	4·25	✓
137 – 136 A14 → A13	+21	240	4·09	✓
137 – 138 A14 → A15	-42	348	5·54 (ceiling)	✓
139 – 138 A16 → A15	-07	257	7·98	✓
139 – 140 A16 → A17	-28	50	7·8 six	✓
141 – 140 A18 → A17	+46	220	5·1	✓
141 – 142 A18 → A19	0	346	4·6	✓
143 – 142 A20 → A19	+90	0	20·5	✓
143 – 144 A20 → A21	+16	37	9·7	✓
145 – 144 A22 → A21	+10	194	4·45	✓
145 – 146 A22 → A23	-54	98	3·24	3·23 on survey sheet
147 – 146 A24 → A23	+03	232	8·33	✓
147 – 148 A24 → A25	+23	36	5·71	✓

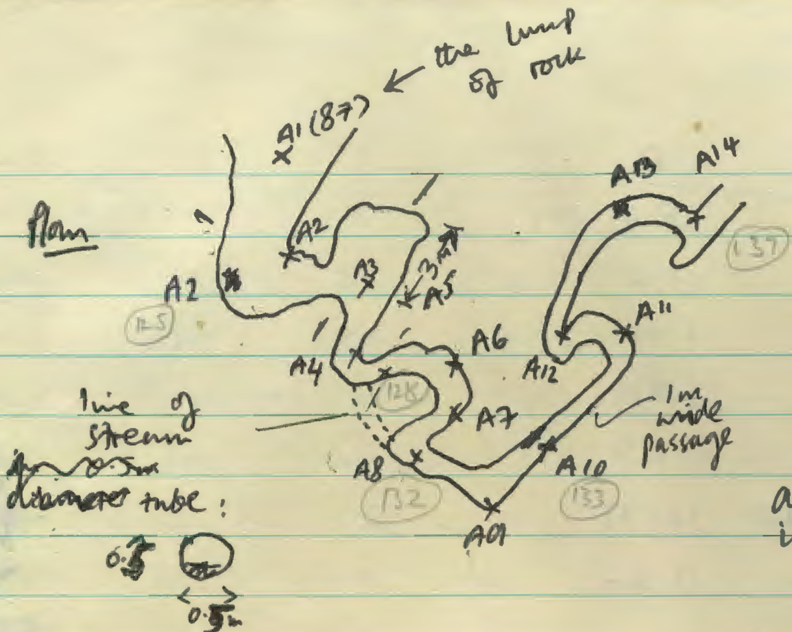
B37

S→S	I	B	D.	
149 - 148 A26→25	+90	0	18·91	✓
149 - 150 A26→27	-03	16	13·0	✓
151 - 150 A28→27	+45	213	6·94	✓
151 - 152 A28→29	-53	68	3·81	3·82 on survey sheet
153 - 152 A30→A29	+18	185	4·49	✓
153 - 154 A30→A31	-90	[illegible]0	34·76	
155 - 154 A32→A31	0	216	9·87	✓

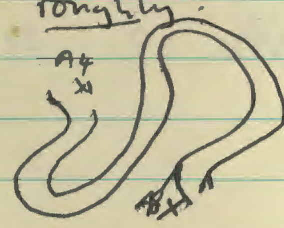
HM

B38

Plan

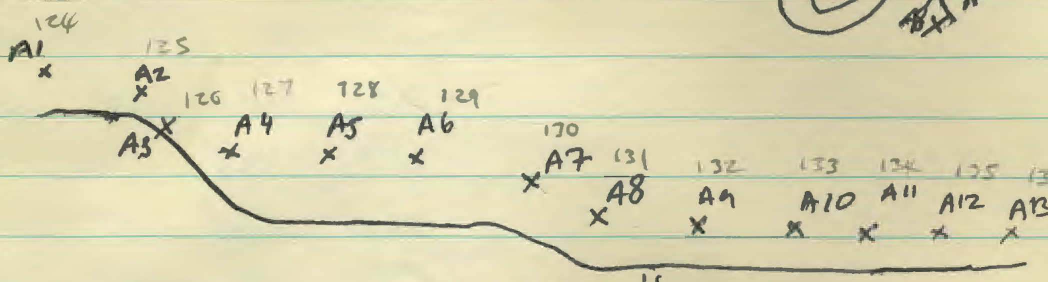


The Oxbow lies between A5 and A8 and is roughly:



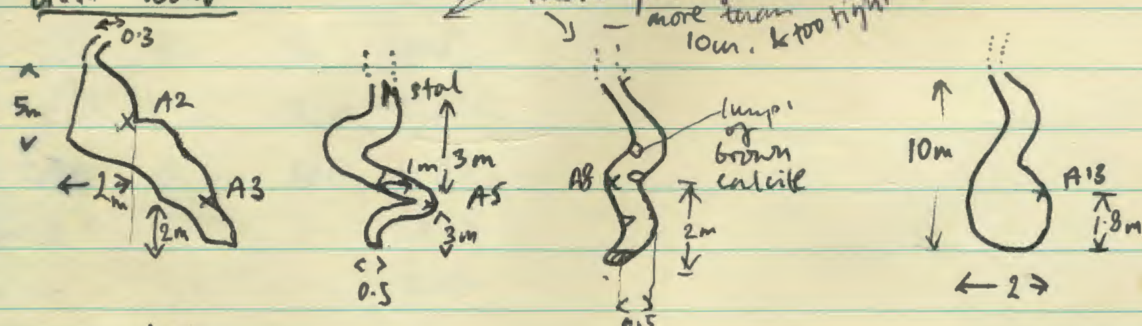
but I could be wrong.

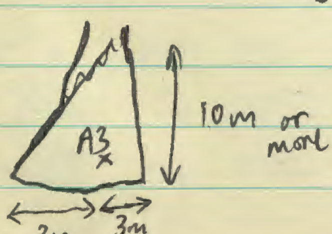
Elevation



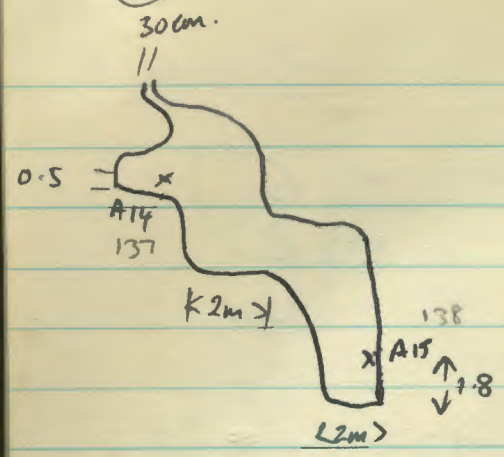
Cross section

how. high are these passage? — more than 10m, & too tight to climb.



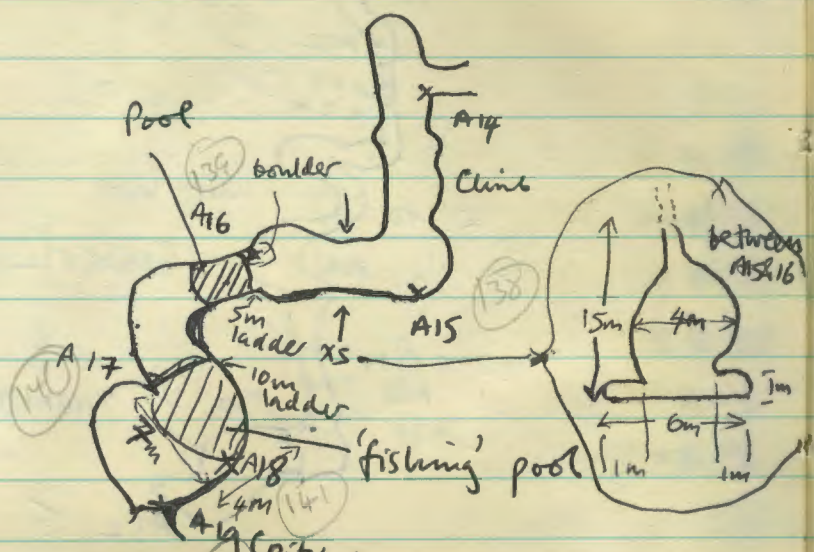


B39



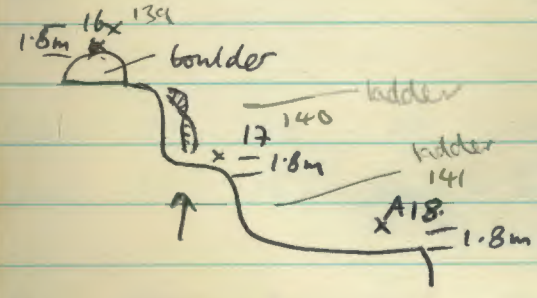
Elevation of Climb

Plan

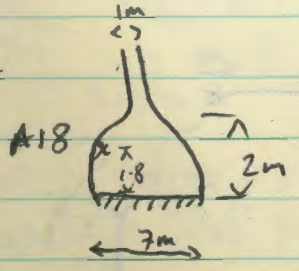


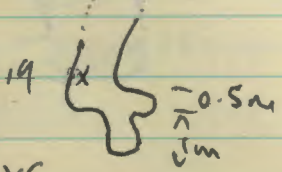
(pitch head of Cam Shaft)

Elevation

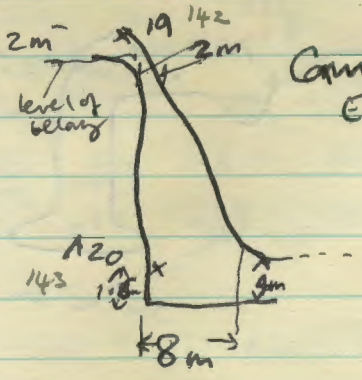


Cross-sec

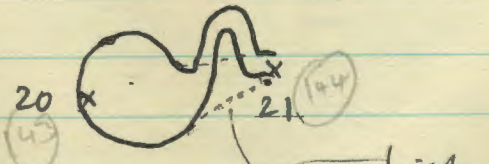




XS



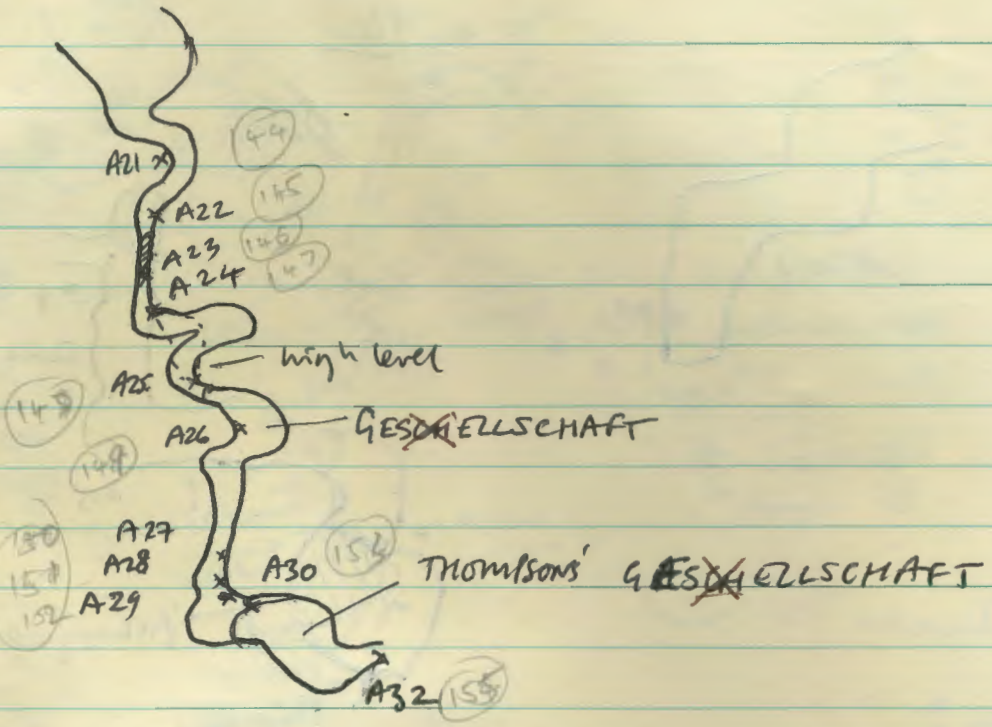
Cam Shaft Elevation



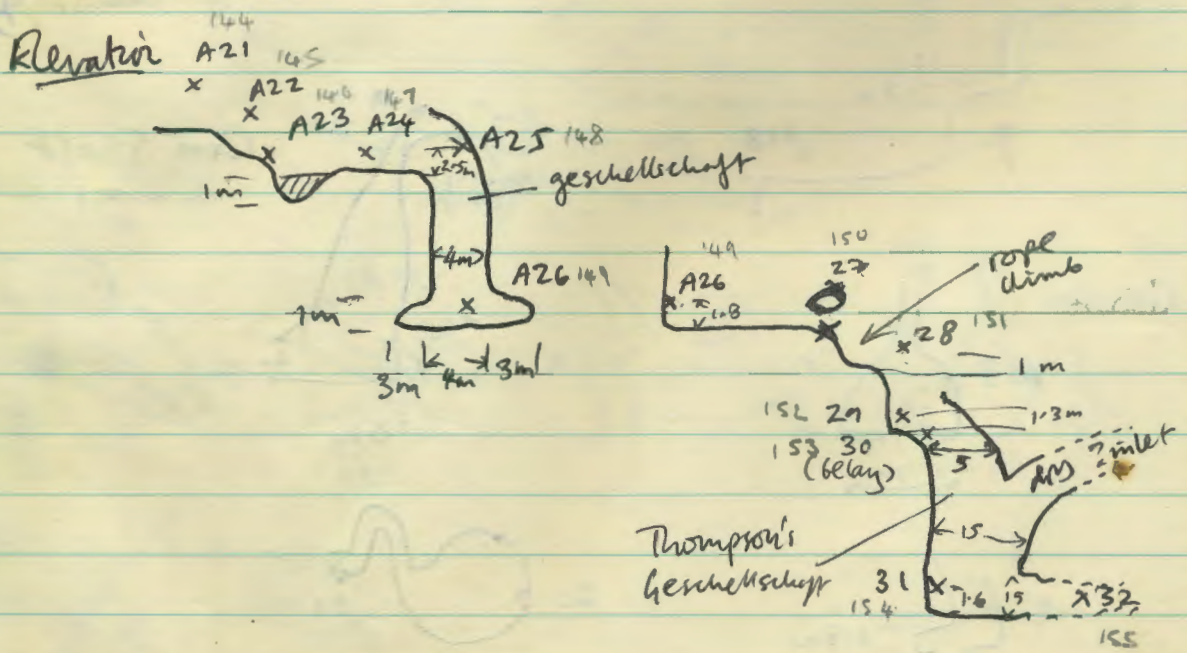
Plan

B40

Plan

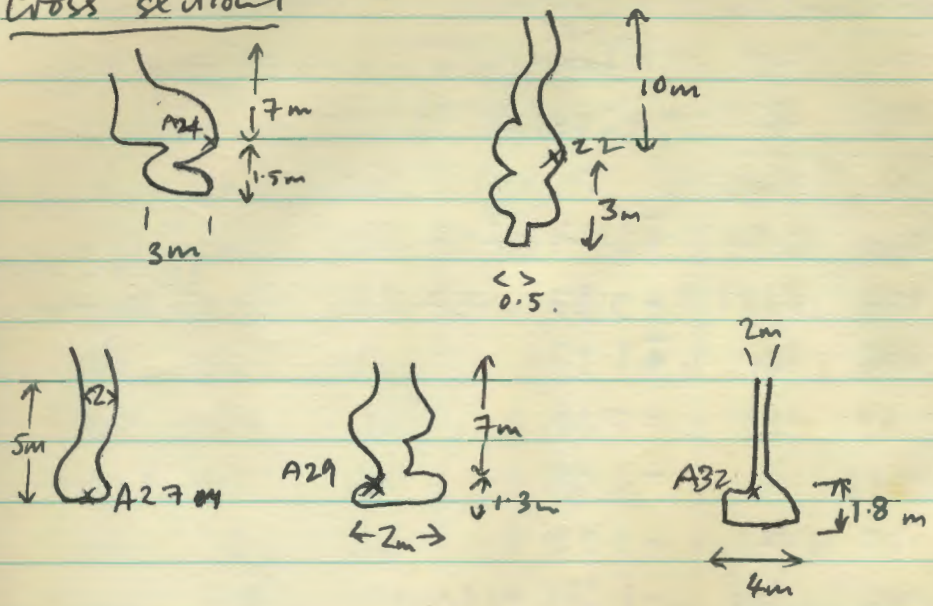


Elevation



B4t

Cross sections



Station	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
Height	1.5m	1.8m	2m	3m	high c. 3	level c.3	c.3.	2m	2m	0.5

Station	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20
Height	0.5	0.5	1.8	0.5	1.8	1.8	1.8	1.8	2m above bay	1.6

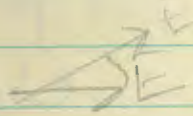
Station	A21	A22	A23	A24	A25	A26	A27	A28	A29	A30
Height	2m	3m	1.5	1.5	2.5m above head pitch	1.8	nil (stream level).	1m	1.3	below bay

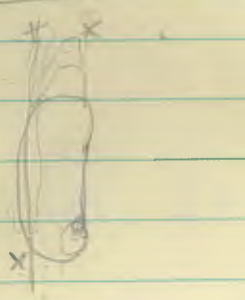
Station	A31	A32
Height	1.6	1.8.

back sight – inc & depth same sign
fore sight – inc + depth different sign

16-15 22-23	✓ 30/0	+10	295	−5.20	
17-15 23-23	✓ 30/0	−02	140	−1.03	
14-13 24-25	✓ 30/0	+07	313	∓3.66	
12-13 26-25	✓ 30/0	00	120	0	
12-11 26-27	✓ 30/0	+08	286	∓4.17	−57.31
10-11 28-27	✓ 4/83	+02	082	+0.17	−57.14
10-9 28-29	✓ 30/0	+03	329	∓1.57	
8-9 30-29	✓ 30/0	−10	166	−5.20	
8-7 30-31	✓ 30/0	+04	332	−2.09	
6-7 32-31	✓ 30/0	−02	142	−1.03	
6-5 32-33	✓ 30/0	+03	328	−1.57	−68.60
4-5 34-33	✓ 30/0	−09	162	−4.70	
4-3 34-35	✓ 30/0	+07	018	−3.66	−76.96
2-3 36-35	✓ 20/0	+05	155	+1.75	
2-1 36-37	✓ 15/5	−06	238	+1.61	−73.60

(28) coin a pole t/s top carp





(36) 1.55 m above E end of Xito entrance.

(37) at W end of Xito entrance.

VERTICAL DISTANCE BETWEEN ENTRANCES 1/5 (XITO) & 12/5 (CISTERN)

IS 73.60 m

steam methods!

PMS 9/8/84 slide rule + hand adding can!

B43

SURFACE SURVEY SARA + PHILIP S.

CISTRA → XITU 9 AUG - 1984

School of geology instruments.

S-S	t.	clino.	compass.	leg dep.	tot. dep.			
36-37 2-1	11/85	-41	110	-7.75	-7.75		SIE ① circle at	
34-35 2-3	22/40	+06	289	-2.36	-10.11		③	
34-35 4-3 ✓	30/0	00	132	0	-10.11			
34-33 4-5 ✓	30/0	+08	321	-4.17	-14.28			
32-33 6-5 ✓	30/0	+12	108	+6.24				
32-31 6-7 ✓	30/0	-13	323	+6.75				
30-31 8-7 ✓	30/0	+18	095	+9.27				
30-29 8-9 ✓	30/0	-13	307	+6.75	+14.73			
28-29 10-9 ✓	30/0	-09	108	-4.70				
28-27 10-11 ✓	30/0	+11	293	-5.73				
26-27 12-11 ✓	30/0	-08	076	-4.18				
26-25 12-13 ✓	30/0	+18	331	-9.27	-9.15			
24-25 14-13 ✓	30/0	+12	084	+6.24				
24-23 14-15 ✓	35/5	+10	281	-5.20				
22-23 16-15 ✓	30/0	+12	074	+6.24	-1.87			
22-21 16-17 ✓	30/0	+32	261	-15.90				
20-21 18-17 ✓	30/0	-13	102	-6.75				
20-19 18-19 ✓	30/0	+10	311	-5.20				
18-19 20-19 ✓	30/0	-03	136	-1.57				
18-17 20-21 ✓	30/0	+12	297	-6.24				
16-17 22-21 ✓	30/0	-11	108	-5.72	-43.25			

Richard (book) Measured over instrument.
Dave H. (tape)
Fred (instrument).

B44

Cistern survey

B1 = A32

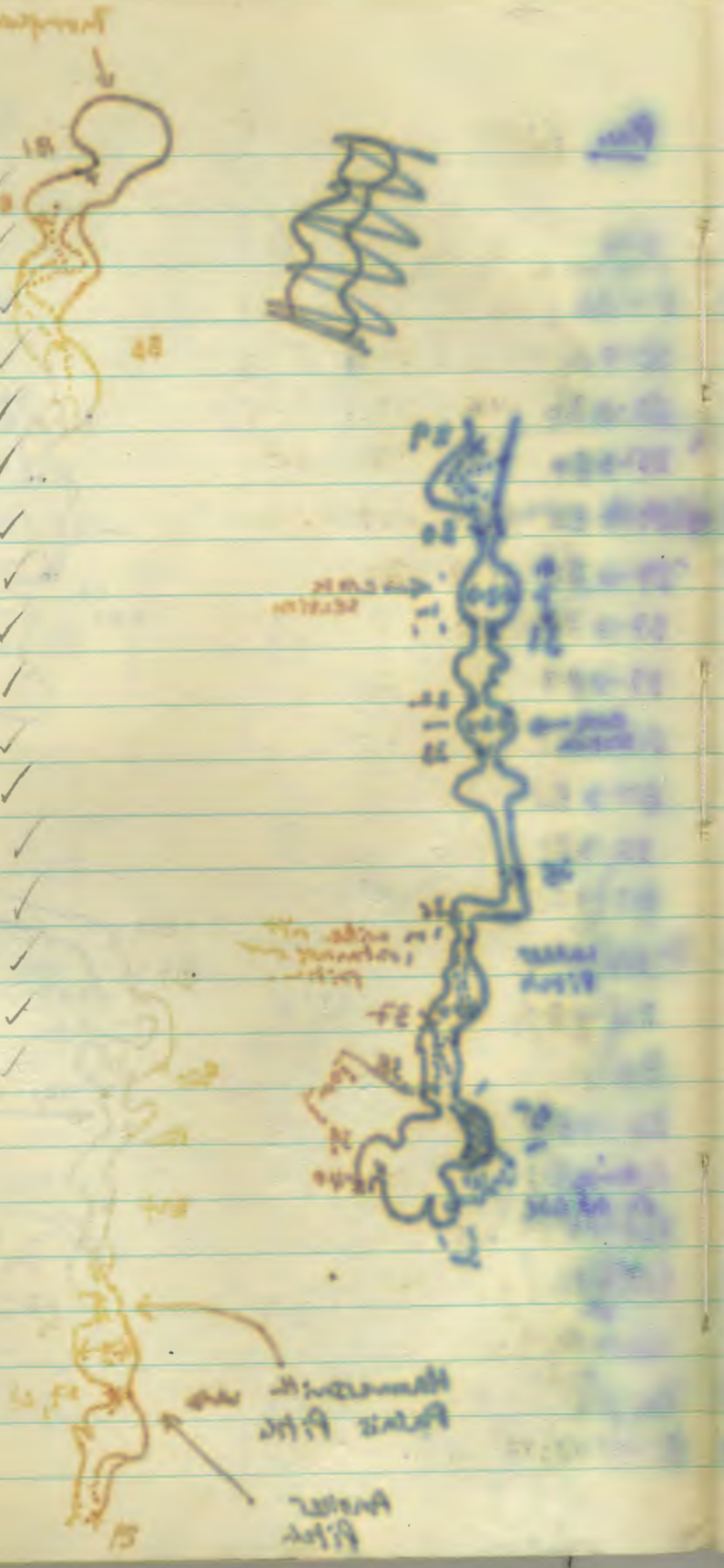
S→F	E	B	D.	
155 - 156				
B1 → B2	+32	13	5.85	✓
157 - 156				
B3 → B2	-19	247	12.89	✓
157 - 158				
B3 → B4	-09	356	6.20	✓
159 - 158				
B5 → B4	+70	172	6.8	✓
159 - 160				
B5 → B6	-59	69	6.0	✓
161 - 160				
B7 → B6	+48	246	15.02	✓
161 - 162				
B7 → B8	-90	0	6.84	✓
163 - 162				
B9 → B8	0	237	5.80	✓
164 - 163				
B10 → B9	-11	291	3.46	✓
164 - 165				
B10 → B11	+08	74	7.45	✓
166 - 165				
B12 → B11	-06	222	9.55	✓
166 - 167				
B12 → B13	+07	331	3.38	✓
168 - 167				
B14 → B13	+35	204	(10.36)	10.56 on survey sheet
168 - 169				
B14 → B15	-59	69	2.62	✓
170 - 169				
B16 → B15	-02	296	8.10	✓
170 - 171				
B16 → B17	-14	141	6.47	✓
172 - 171				
B18 → B17	0	304	4.60	✓
172 - 173				
B18 → B19	+15	132	3.96	✓
174 - 173				
B20 → B19	+1	009	4.89	✓
174 - 175				
B20 → B21	+12	(121)	5.5	129 on survey sheet
176 - 175				
B22 → B21	+72	13	(11.2)	11.1 on survey sheet
176 - 177 minus				
B22 → B23	04	118	5.08	✓

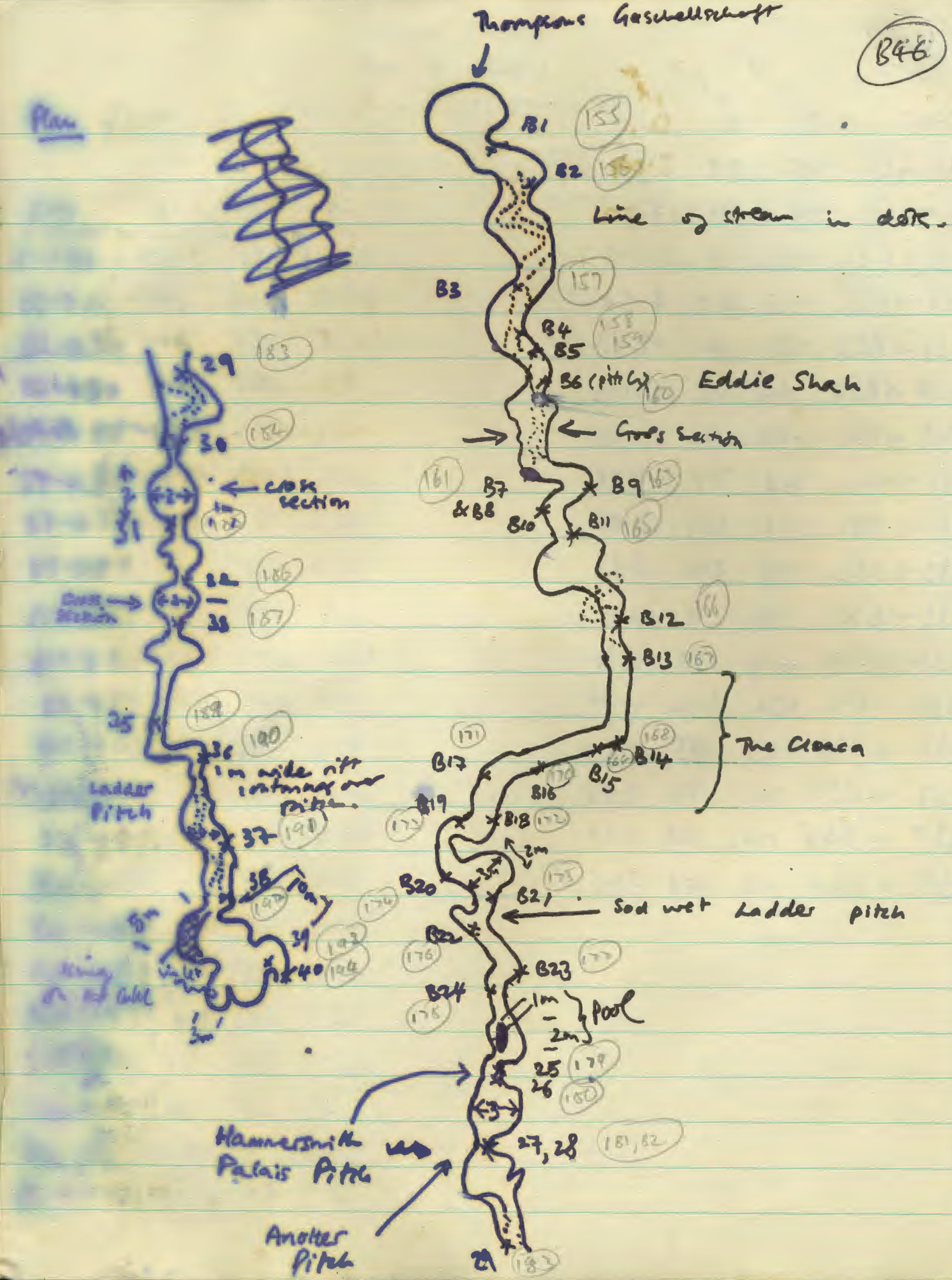
8d

p8

B45

S→S	Inclination	Bearing	Depth	
178 – 177 B24 → 23	-05	08	3·09	✓
178 – 179 B24 → B25	-52	81	17·52	✓
179 – 180 B25 → B26	-90	0	6·18	✓
181 – 180 B27 → B26	-13	209	6·30	✓
181 – 182 B27 → B28	-90	0	12·83	✓
183 – 182 B29 → B28	-26	202	12·13	✓
183 – 184 B29 → B30	-27	21	10·20	✓
185 – 184 B31 → B30	+18	214	7·28	✓
185 – 186 B31 → B32	-17	359	3·89	✓
187 – 186 B33 → B32	-03	216	3·95	✓
187 – 188 B33 → B34	-90	0	15·71	✓
189 – 188 B35 → B34	+10	196	12·36	✓
189 – 190 B35 → B36	+36	304	4·39	✓
191 – 190 B37 → B36	+43	193	16·53	✓
191 – 192 B37 → B38	-46	94	7·87	✓
192 – 193 B39 → B38	+46	188	15·39	✓
193 – 194 B39 → B40	-23	007	5·44	✓

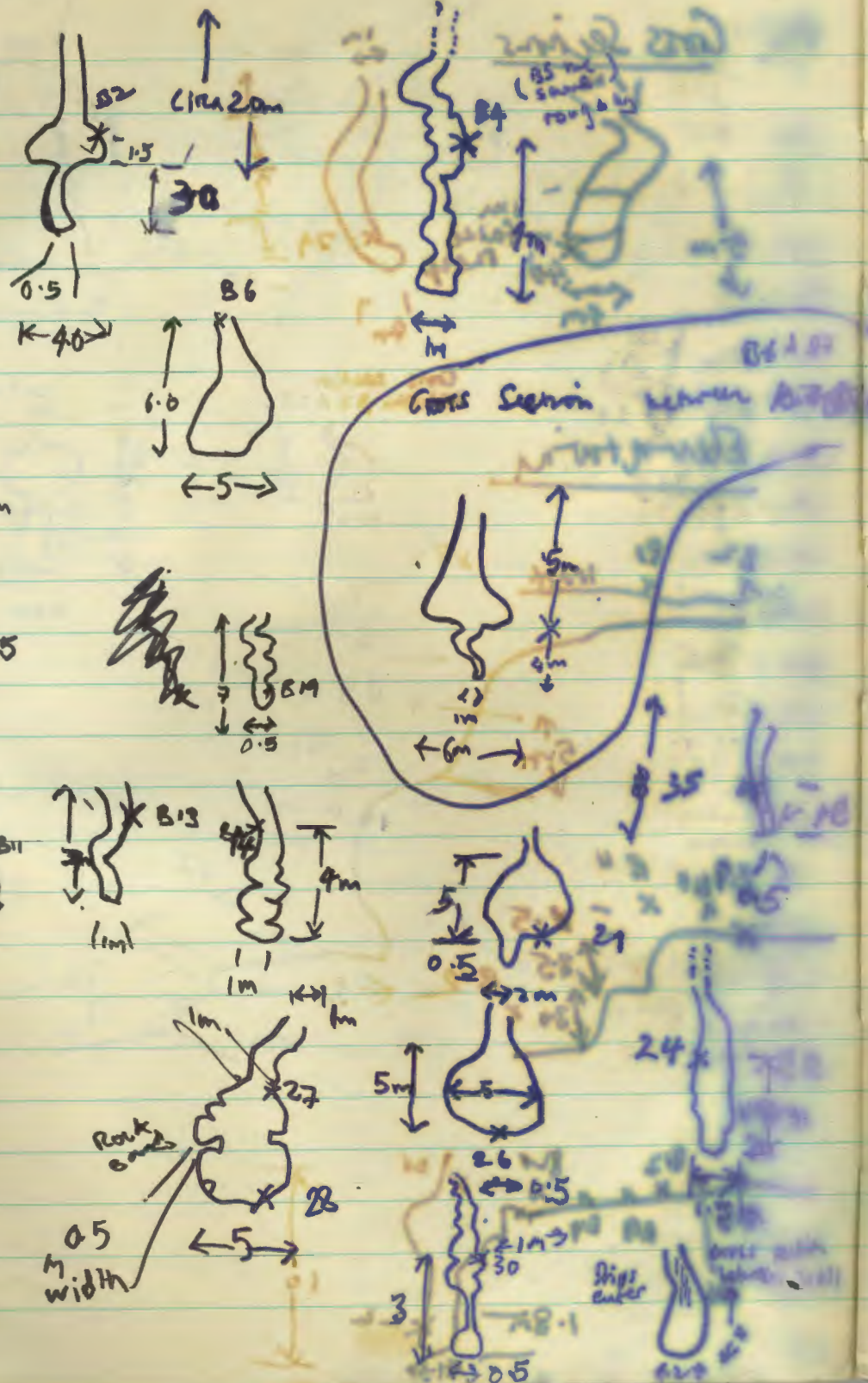



B46
Plan
Thompsons Gesellschaft
B1
B2
Line of stream in dots.
B3
B4
B5
B6 (pitch)
Eddie Shah
Cross section
B7 & B8
B9
B10
B11
B12
B13
The Cloaca
B14
B15
B16
B17
B18
B19
2m
B20
B21
Sod wet Ladder pitch
B22
B23
B24
1m
2m
Pool
25
26
3
27, 28
Hammersmith Palais Pitch
Another Pitch
29
30
cross section
31
32
33
35
36
1m wide rift continues over pitch.
Ladder Pitch
37
38
10m
39
40
3m

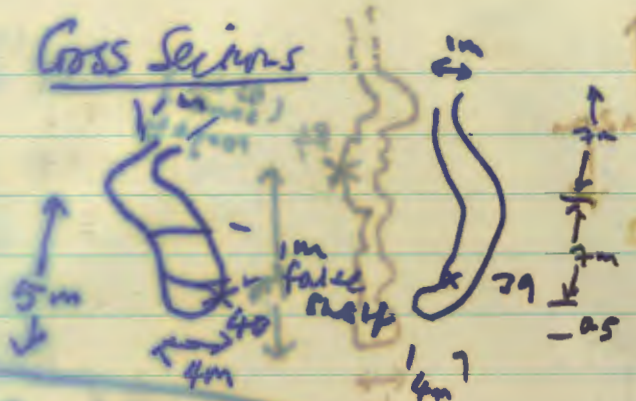
B47

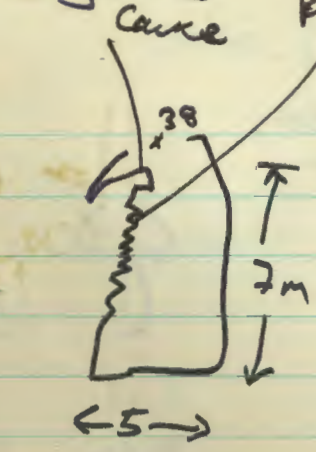
B Stations

Cross Section

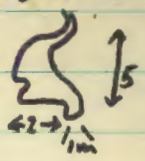


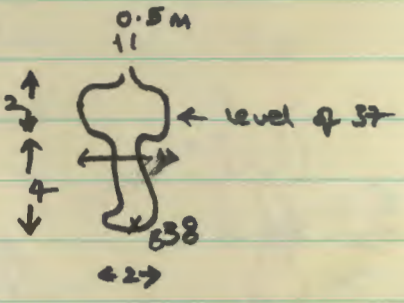
Cross Sections



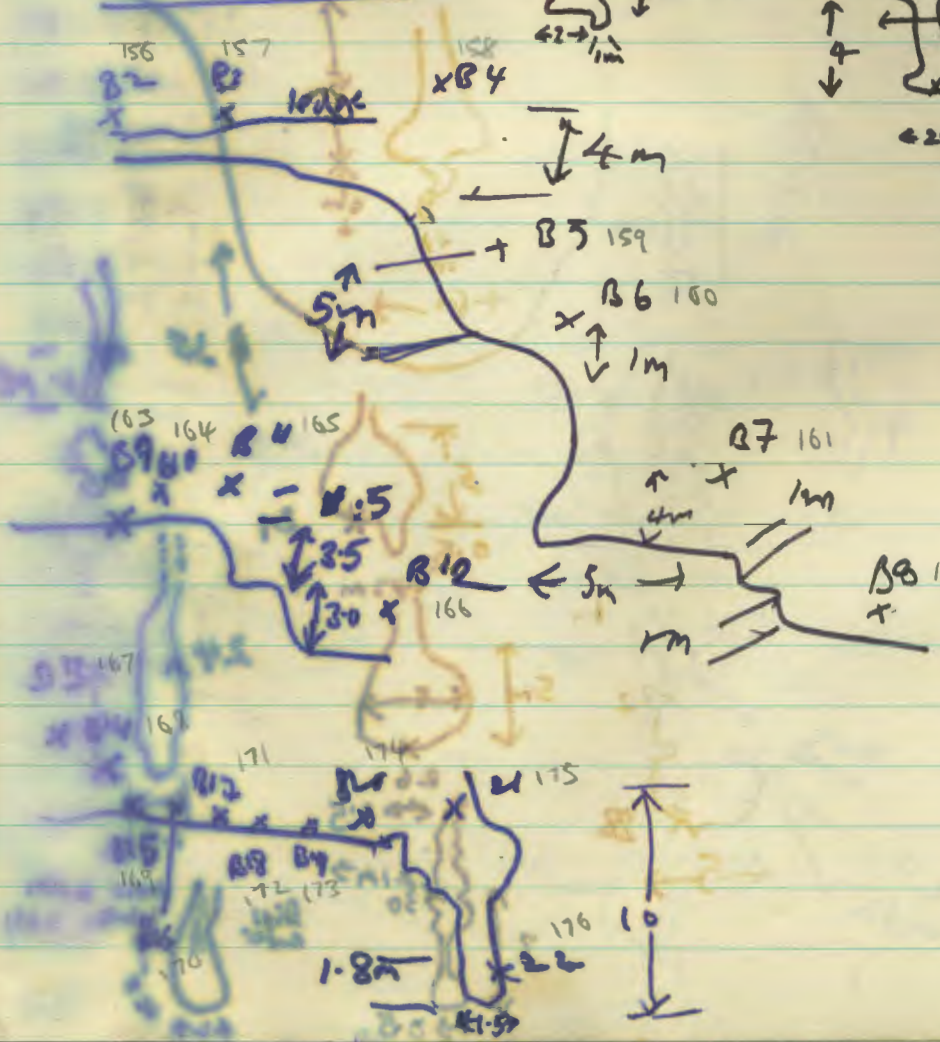


Cross section between 32 & 33.



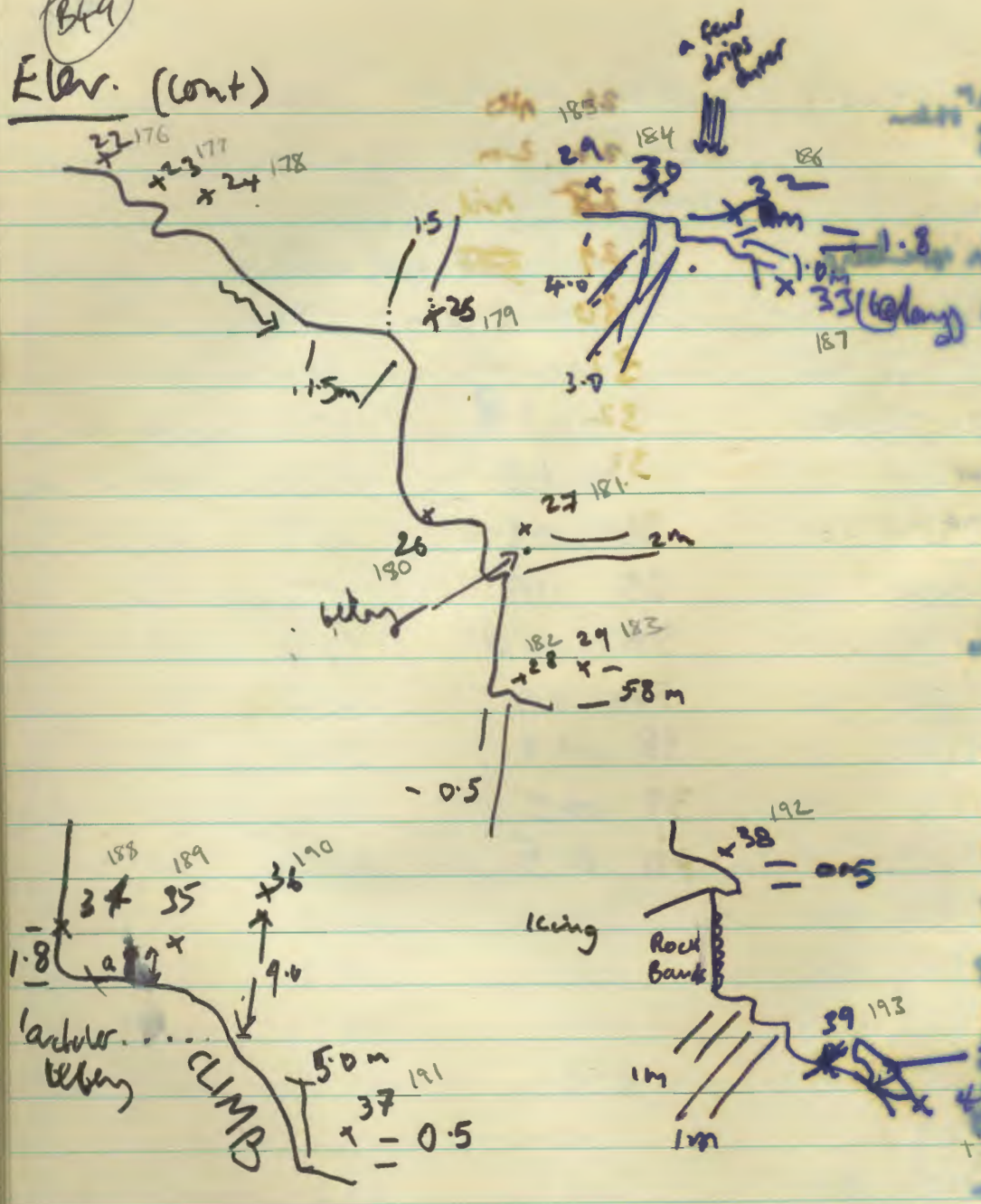


Elevation



B49

Elev. (cont)



B57

station height above stream

1	1·5
2	4·5
3	1·8m above ledge
4	4m
5	3
6	1m
7	4m
8	nil
9	nil
10	30cm
11	1·5m
12	3m
13	7m
14	4m
15	1·8
16	1·8
17	0·3
18	0·3
19	0·5
20	1m
21	10
22	1·8
23	2·0
24	1·0m
25	at belay point 10m above
26	nil
27	2m
28	nil
29	~~[illegible]~~ nil
30	3·0m.
31	
32	1·8
33	1·8
34	1·8
35	1·8
36	4·0
37	1·8
38	1·0
39	0·5
40	0·5

175

176

BS1

12 August 1984 Survey: Stephen G. (instruments and book), Jan (tape). SOG equipment.

Stn leg	Sloping Distance (m)	Declination (degrees)	Inclination	Height of stn above feature (m)
C1 → C2	3.96	106	−7.5	(C1) 1.05 above floor
C2 → C3	2.81	084	−35	(C2) 0.70 " "
C3 → C4	8.29	112	−30	(C3) 1.40 " "
C4 → C5	6.29	039	−8	(C4) 1.58 " "
C5 → C6	5.48	339	−5	(C5) 0.76 above opposite wall
C6 → C7	7.47	088	+1	(C6) 1.33 above shelf
C7 → C8	4.31	033	−19	(C7) 2.75 above stream
C8 → C9	3.32	306	−5	(C8) 1.42 " " ?
C9 → C10	1.82	231	+3	(C9) 1.36 " " ?
C10 → C11	3.42	317	+3	(C10) 0.82 " shelf
C11 → C12	4.55	038	−29	(C11) 0.78 " "
C12 → C13	5.16	125	−28	(C12) 1.25 " shelf ? stream ?
C13 → C14	7.00	079	−35	(C13) 1.13 " stream shelf
C14 → C15	12.17	005	+12	(C14) 1.01 above floor of chamber
C15 → C16	2.64	046	+11	(C15) 2.23 above floor
C16 → C17	3.39	149	−10.5	(C16) 1.60 " "
C17 → C18	8.13	130	−34	(C17) 1.14 " "
C18 → C19	2.60	071½	+10	(C18) 1.60 " "

(852)

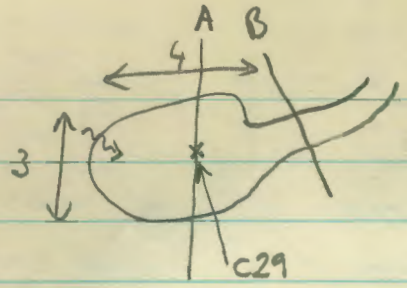
Stn leg	Sloping Distance (m)	Declination	Inclination	Height of stn above feature (m)
C19 → C20	7.72	—	−90	(C19) Roof of pitch
C20 → C21	1.70	—	+90	(C20) Floor of shelf at base of pitch
C21 → C22	5.69	005	−6	——
C22 → C23	2.16	321	+9	(C22) 3.45 above stream
C23 → C24	3.64	073	0	(C23) 0.89 above shelf
C24 → C25	6.32	349	+9	(C24) 7.2 above stream
C25 → C26	1.75	325	+4	(C25) >5 " "
C26 → C27	3.92	047	−21	—— } v. high
C27 (247) → C28 (248)	2.58	065	−9	—— } above stream

nb B40 = C1

Pres 12/8/84

C28 → C29	14/39	000	−90	1/6 m above floor in chamber

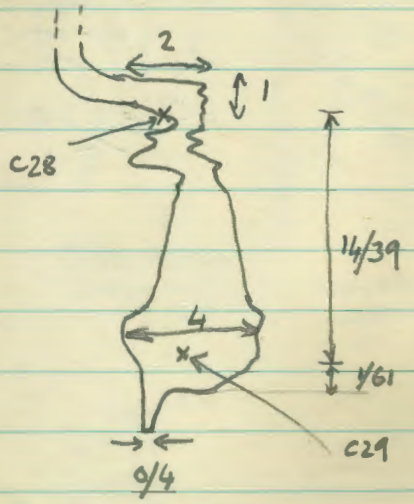
B53



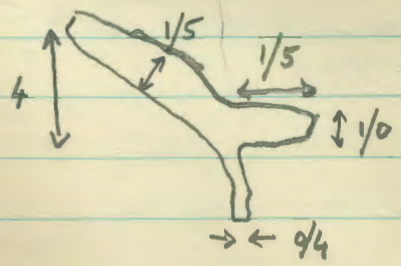
PLAN

THE HEATH PITCH & CHAMBER

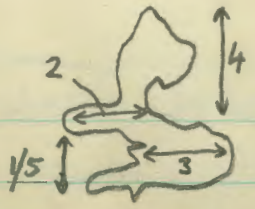
PMS
12/8/24



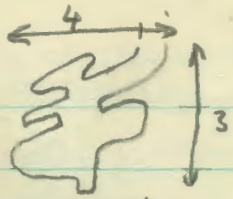
ELEV. A



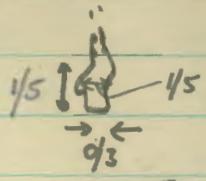
ELEV. B.



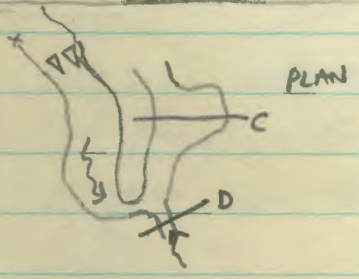
C INTO CAVE ELEV.

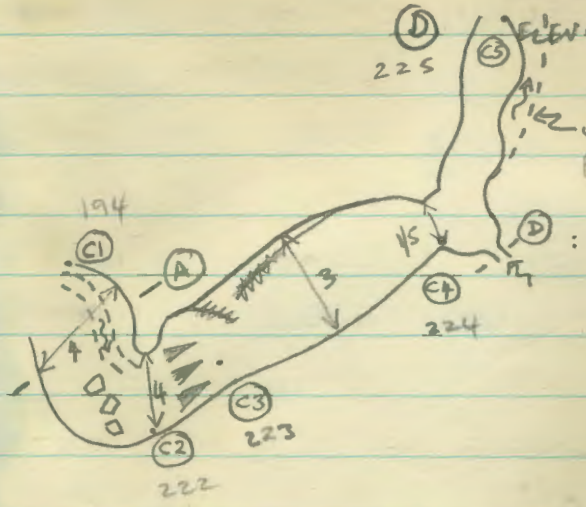


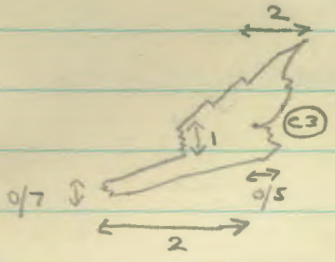
A INTO CAVE ELEVATION



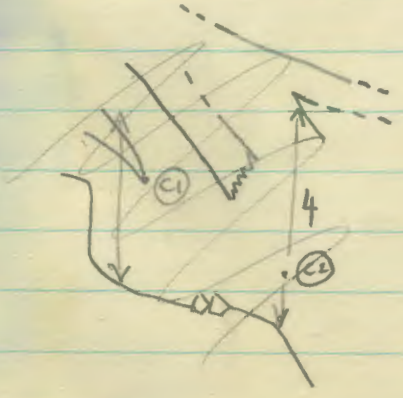
INTO CAVE



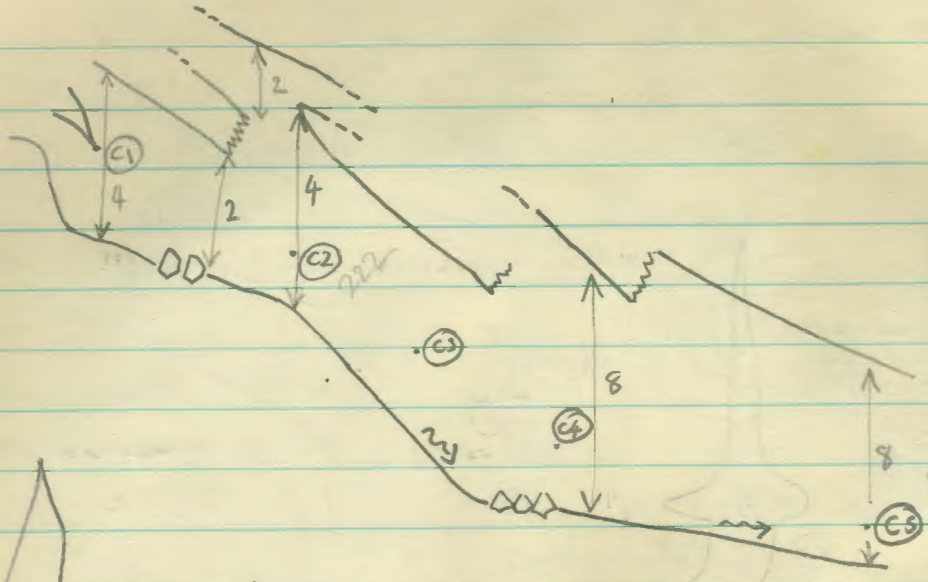




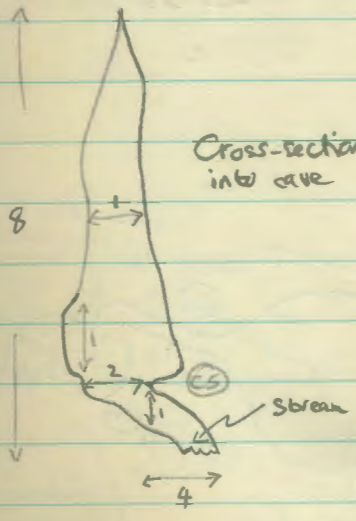
Cross-section into cave

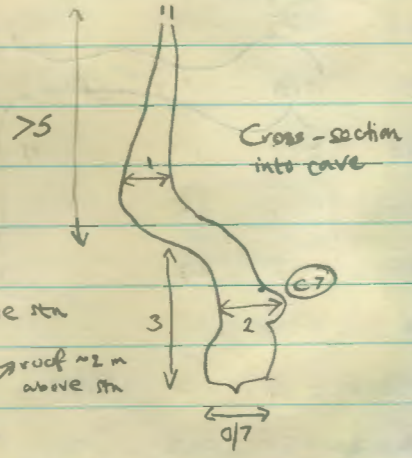


B55

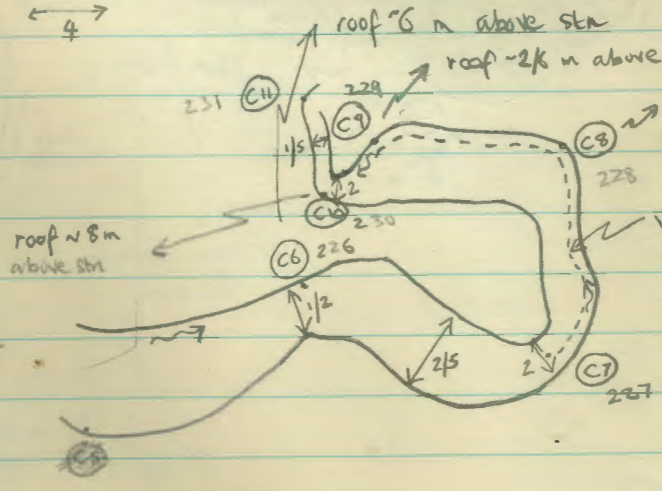


Cross-section into cave

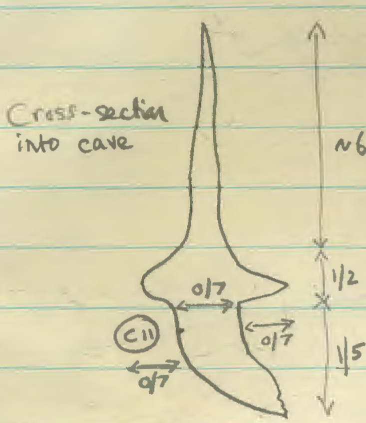


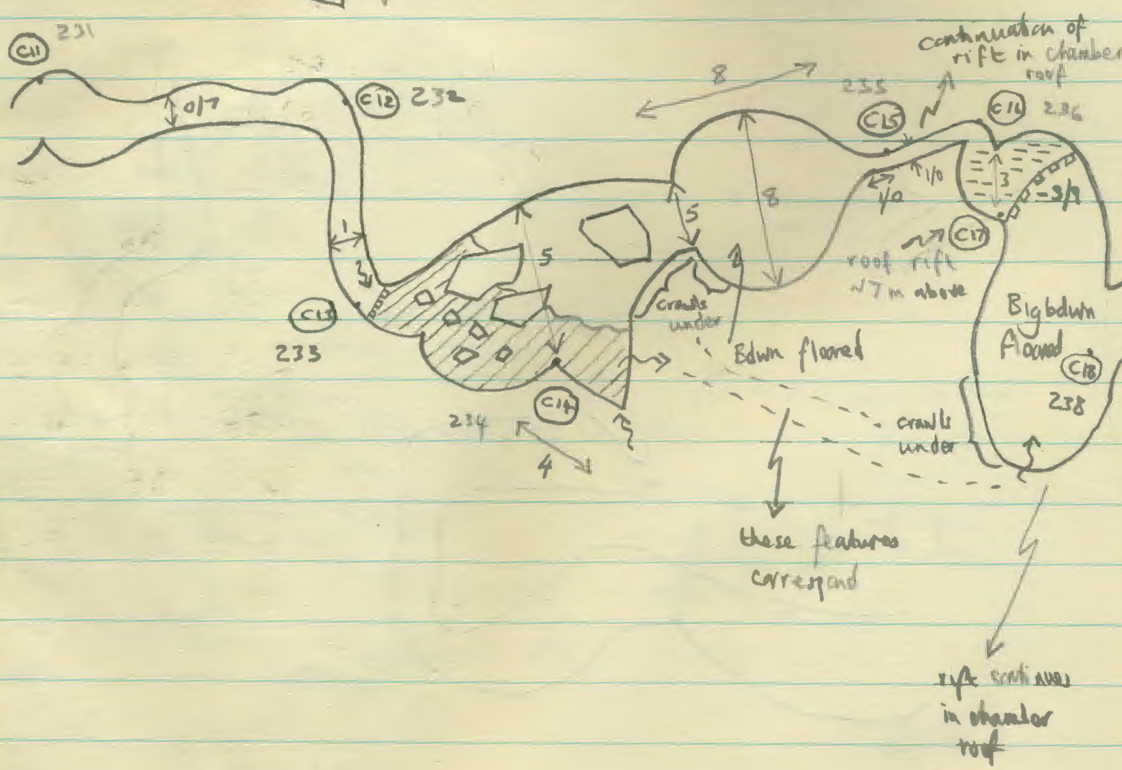


Cross-section into cave

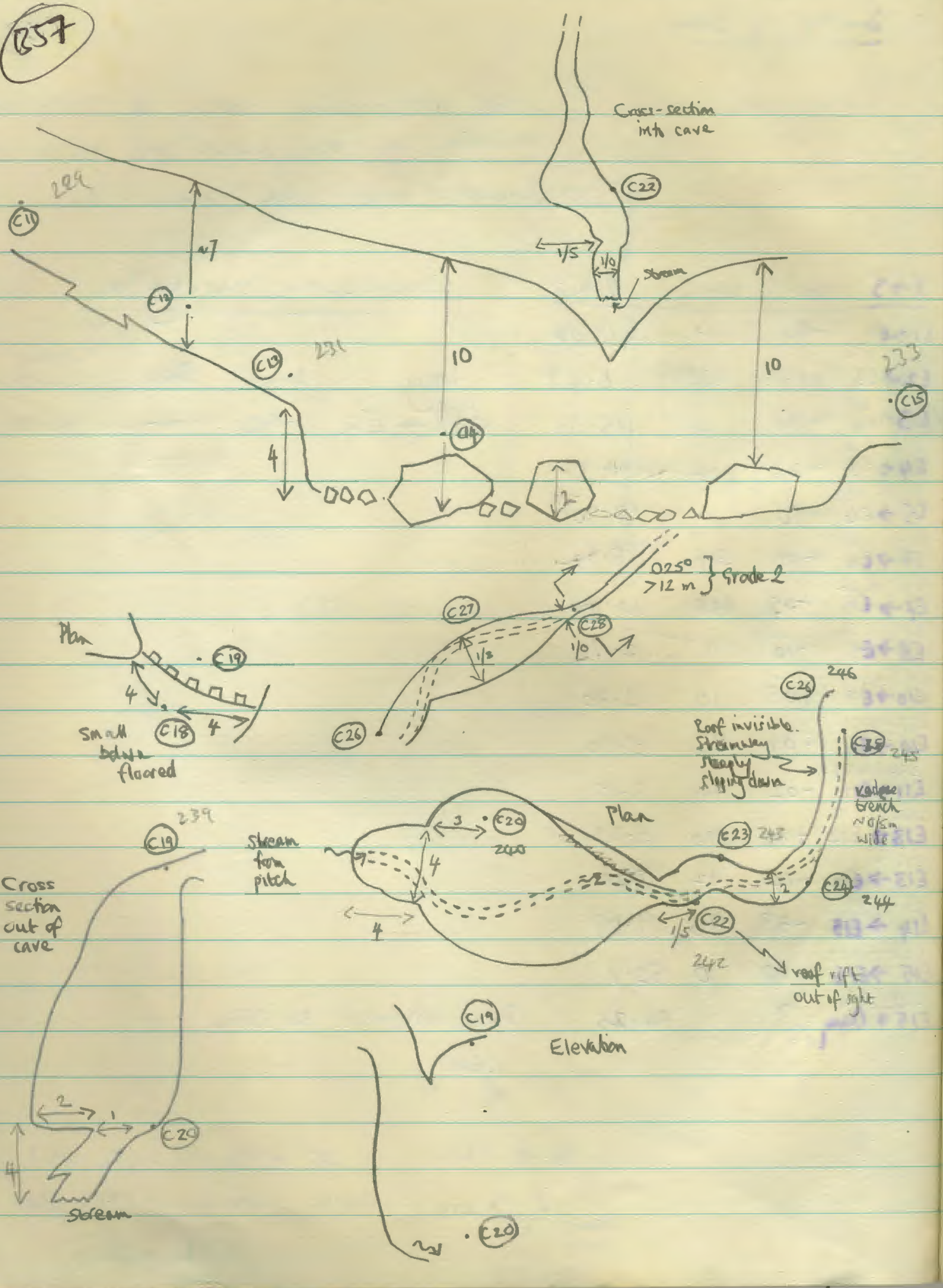


N.b. roof forms continuous rift from C5 →


Cross-section
into cave
~6
1/2
1/5
0/7
0/7
0/7
C11


C11 231
0/7
C12 232
1
3
C13
233
5
5
8
8
C14
234
4
crawls under
Bdwn floored
235
C15
continuation of
rift in chamber
roof
C16 236
1/0
1/0
3
3/1
C17
roof rift
~7 m above
Big bdwn
floored
C18
238
crawls
under
these features
correspond
rift continues
in chamber
roof

B57


Cross-section into cave
C22
1/5
1/0
Stream
229
C11
~7
231
10
10
233
C15
4
C14
2
025°
>12 m
Grade 2
C27
C28
1/8
1/0
Plan
C19
4
C18
4
Small boulder floored
C26
C26
246
Roof invisible. Streamway steeply sloping down
C25
245
vadose trench ~0.5m wide
239
C19
Cross section out of cave
Stream from pitch
3
C20
240
Plan
4
4
2
C23
243
2
C24
244
1/5
C22
242
roof rift out of sight
C19
Elevation
2
1
C20
4
Stream
C20

Survey of Cistra.

B58

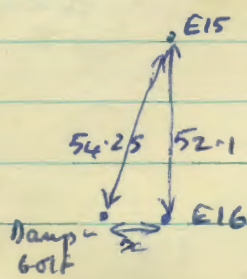
Our first survey station is the lowest Maillon on the belay of the Traverse line pitch main bang.

S→S	Inc	Bearing	Distance
E1→E2	-90	0	13.54
249-250 E2→E3	+24	63°	6.67
250-251 E3→E4	-90	0	35.39
251-252 E4→E5	-26	104	7.99
252-253 E5→E6	-90	0	7.80
254-253 E7→E6	-01	314	8.97
254-255 E7→E8	-05	138	10.49 — must be -90
255-256 E8→E9	+10	0	2.92
257-256 E10→E9	+08	10	2.30
257-258 E10→E11	-01	85	5.10
258-259 E11→E12	-02	44	3.15
260-259 E13→E12	+32	190	5.23
260-261 E13→E14	-14	97	3.79
261-262 E14→E15	-58	96	9.29
262-263 E15→E16	-90	0	52.1
262-264 E15→Dampton bolt?			54.25

Connecting survey leg:

Leg	Inc	Dec	Sloping Length
248 C28 → 249 E2	-90	—	15.00

Dec estimated to 096



$x^2 + (52.1)^2 = (54.25)^2$

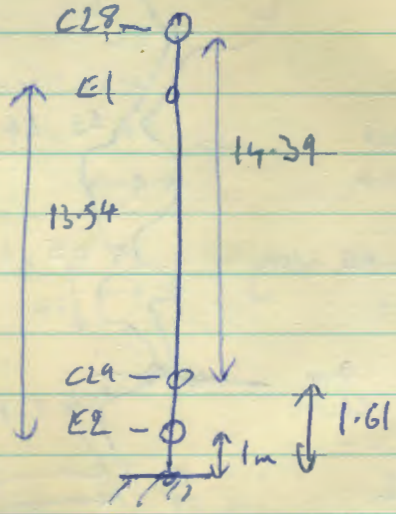
$228.62 \quad 2714.41 = 2943.0625$

$\therefore x = 15.1$ metres,

B59

ss C29 is 1·61 m above the floor, 14·39 m below C28

ss E2 is 1·00 m " " "

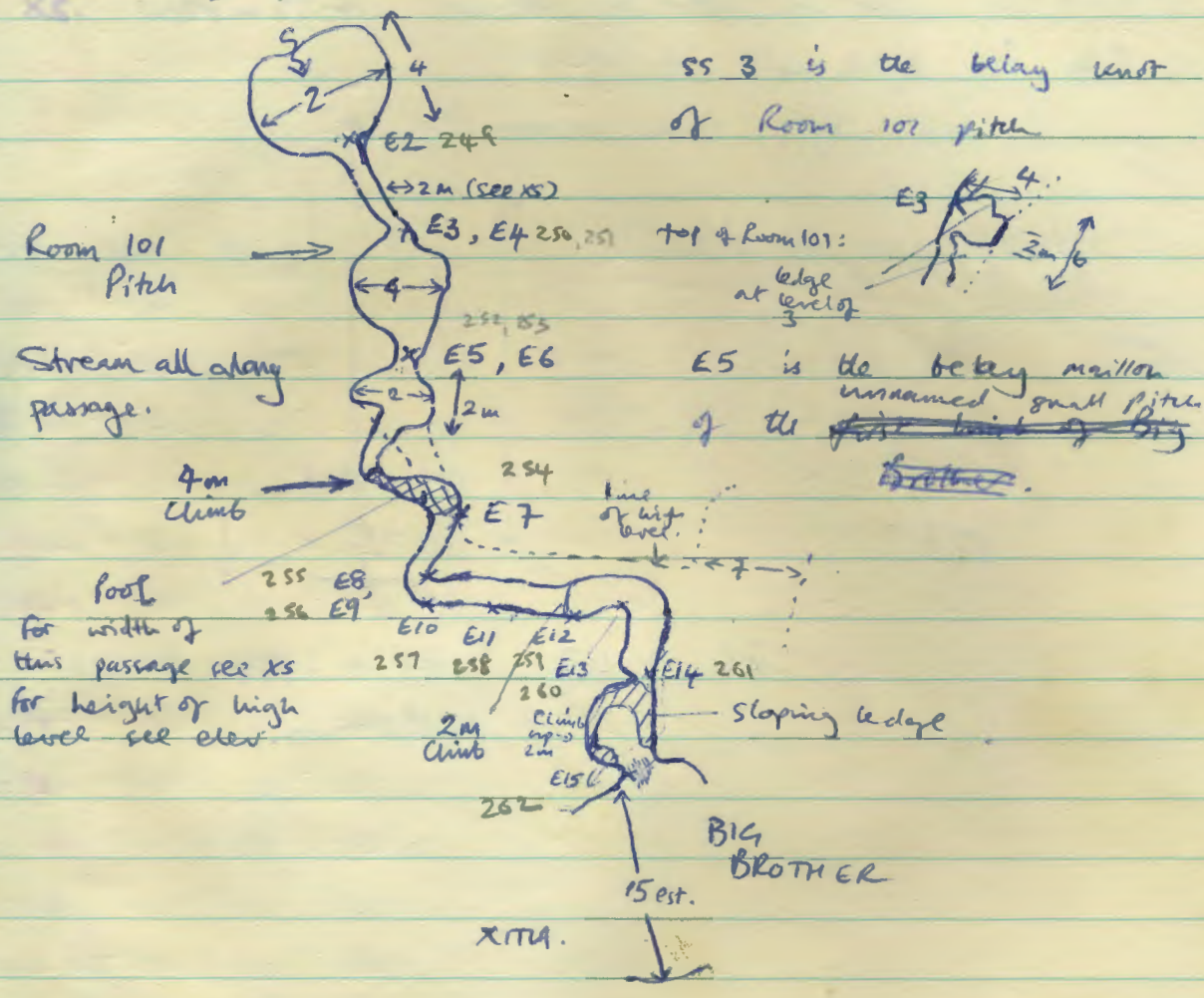


~~E2~~

$\therefore$ C28 → E2 = 14·39 + 1·61 − 1·0

= 15·00 m

Plan

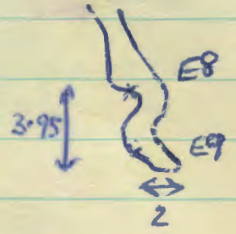


SS 3 is the belay knot of Room 101 pitch

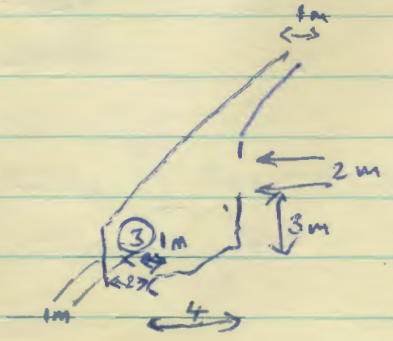
top of Room 101: edge at level of 3

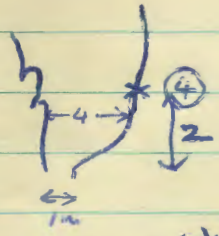
E5 is the belay maillon unnamed small pitch. of the ~~first~~ ~~third~~ ~~Big~~ ~~Brother~~.

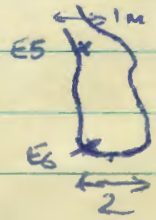
Cross Section



(at E7 basically the same)

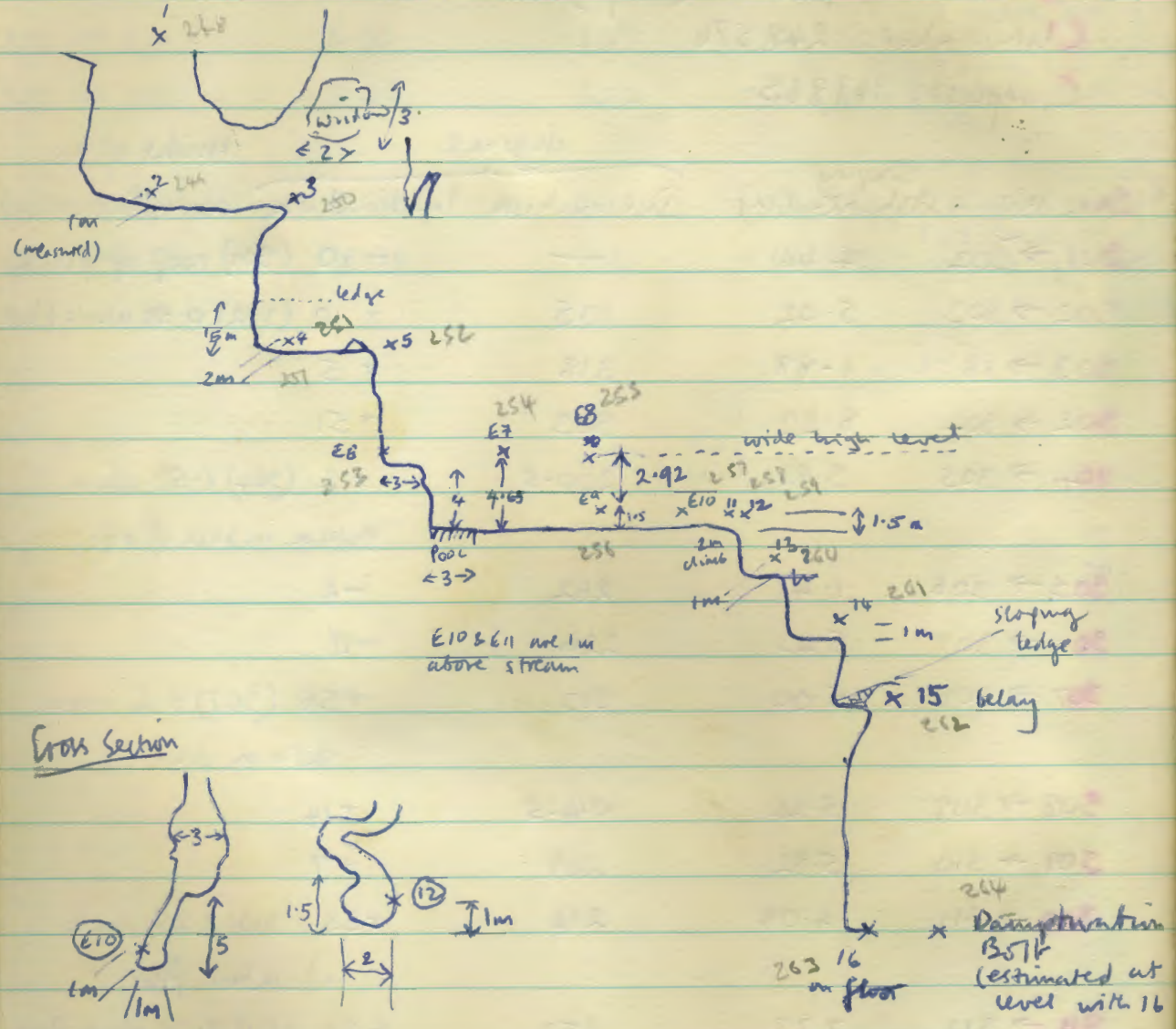






B61

Elevation



Cross Section

Checked from survey sheets

362

13 August 1984 Survey: Stephen G. (instruments and book), Jan (tape).

Clinometer: 248576

Compass: 949865

Stn leg	Sloping Distance (m)	degrees Declination	degrees Inclination	Height of stn above feature (m)
301 → 302	14.68	—	-90	(301) roof of pitch
302 → 303	5.02	105	+ 10	(302) 0.58 above floor
303 → 18 (54)	1.88	318	+5	
302 → 304	8.22	303	+51	
304 → 305	3.81	200.5	+2	(304) 6.50 above stream in base of rift
305 → 306	1.41	262	-4	
306 → 307	5.43	226	-18	
307 → 308	5.00	313	+56	(307) 5.2 above stream bed
308 → 309	5.24	014.5	+14	
309 → 310	5.82	269	+7	
310 → 311	4.08	264	+53	(310) 2.25 above chamber floor
311 → 312	7.73	250	+24	(311) 3.55 above floor
312 → 313	0.50	—	+90	(312) top of stalagmite
313 → 314	11.20	288	+33	
314 → 315	27.29	256	+20	(314) 0.87 below roof 1.22 above floor base of stalactite
315				

LA PREVISTA

SEE ALSO NOTES IN MASK CAMP LOG.

end B63

Checked from survey sheet:

Stn leg	Sloping Distance (m)	Declination	Inc	Height of stn above feature (m)
301 → 330	4·08	107	+36	
330 → 331	3·21	159	−31 (330)	1·5 above base of small vadose trench.
331 → 332	3·26	325	−39 (331)	0·7 above base of vad trench; top of stal floor.
332 → 17 (53)	3·00	025	−49½ (332)	0·85 above base of vad trench
331 → 333	5·74	144	+46 (333)	1·45 above floor at base of ladder.

3