

These notes are for your help in the event of a major accident such as a fall or a roof collapse. They are not a substitute for qualified aid. They are designed to help you bring a victim alive to the surface.

DO THE FOLLOWING IN SEQUENCE.

- 1 DON'T PANIC. Be methodical. Don't be rushed into hasty action. Keep your reason.
- 2 MAKE PREPARATIONS TO TAKE THE VICTIM OUT. Unless the injury is obviously trivial, all accident victims should be brought to the surface as soon as possible. Beware those who have been hit on the head but look "all right now". They could be bleeding inside the skull and be unconscious and dying in a couple of hours. GET THEM OUT.
- 3 CONSCIOUSNESS. Is the victim able to talk? If so, ask them if they can feel and move their limbs. IF NOT, ENSURE AN AIRWAY.

4 AIRWAY. PULL THE JAW FORWARDS, AND KEEP IT THERE. This stops the tongue lolling back into the windpipe. The ideal position is "sniffing the spring air" - head forwards and chin up. An unconscious patient will die rapidly without an airway. If they puke or look as if they might, roll them on their side and let the vomit come out - BUT SEE "BACK".

5 BLEEDING. If they are obviously bleeding, PRESS ON IT with your hand or a pad, for five or ten minutes without peeping. If it doesn't stop, keep pressing.

6 PULSE. Compare the victim's pulse with your own. SHOCK - severe blood loss - the victim has a fast, thready, weak pulse; they are cold, clammy and sweaty. If you are in no doubt that the victim looks like this, they need an intravenous line (see below). If you are in ANY doubt, don't; caves are mucky places and you'll cause more trouble than you'll cure. When you have a line, give all the fluid you've got. GET THEM OUT.

7 BACK. DON'T MOVE THE VICTIM UNTIL YOU'VE FELT THEIR BACK, OR IF THEY ARE PARALYSED OR LACK SENSATION ANYWHERE. Feel all the way down the spine. You will feel a row of regular bumps; if there is a gap or step, or the victim has pain at one spot on pressing, they have a back injury. If you're in doubt, treat as one.

LOG ROLL. With three people, move the victim as a unit without twisting or bending, like a log. Don't forget the head; don't turn, drop or bend it. In this fashion, get the victim out of harm's way on to a firm, flat, horizontal surface. Don't move them again until you've got them on to a Neil Robertson stretcher.

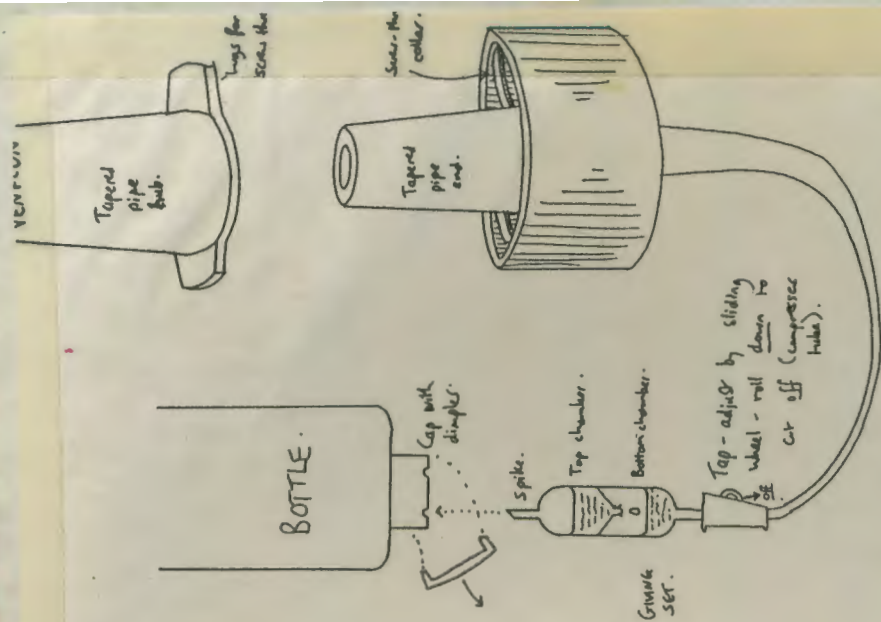
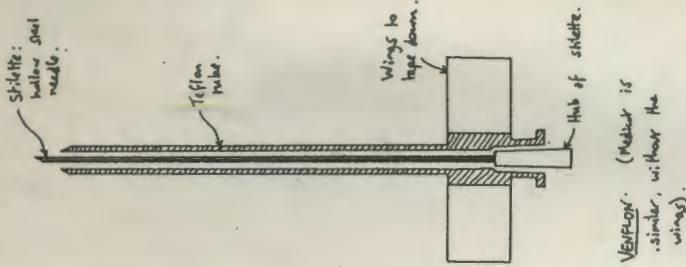
8 CHEST. If the victim has difficulty breathing, or pain on breathing, ENSURE AN AIRWAY and look at the chest (open the clothing; look at both sides). If there is a wound in the chest, PUT A PAD ON IT to stop air leaking in and letting the lungs down. Look at the movements; if one bit goes in while all the rest comes out, and vice versa, PUT A BIG PAD ON THAT BIT to hold it in - that is a "flail segment", a piece of chest wall which has come loose and is moving independently of the rest.

9 DEFORMITY. If either leg is bent out of shape, try and straighten it by pulling down on the foot. Support arms by putting them inside the clothing, or applying a sling if you can. Look for wounds on the limbs; these might connect with the fracture, so it is important to keep crap out of them. Put a pad on them, with pressure if they're bleeding. Splint broken limbs; ideally put the victim on a stretcher.

10 HEAT. EXPOSURE IS A RISK especially for immobile victims. Change wet gear for dry if someone else is wearing dryer gear. Cover with a space blanket. Put into an Eskimo or other sleeping bag if you've got one. Give sugary food ONLY if the victim is fully conscious - they might puke and block their AIRWAY. GET THEM OUT.

On the way out - keep talking to them. Keep checking the pulse - if they weren't shocked before, they might become so.

INTRAVENOUS LINES.



1 Pull the protective cap off the bottom of the bottle; stick the spike at the top of the giving set through one of the dimples in the bottle.

2 Squeeze the bottom bulb of the giving set a few times to get fluid through, then open the tap and let it run down the tube. If you get air bubbles, hold the pipe vertically and flick it or tap it to get them to the end.

3 Get someone to squeeze the victim's arm to bring the veins up; tap or flick them if they're reluctant. The biggest ones are in the crook of the elbow, but watch - the artery lurks underneath here. Check that what you're going for is a vein and not an artery; if you feel it pulsing when you touch it, it's an artery. Occasionally you find an artery near the surface.

4 Put the skin slightly on the stretch with one hand; with the other, push the Venflon or Medicut into the vein, facing up the arm. When blood comes back into the stilette hub, stop and push the tube up round the stilette into the vein (holding the stilette still).

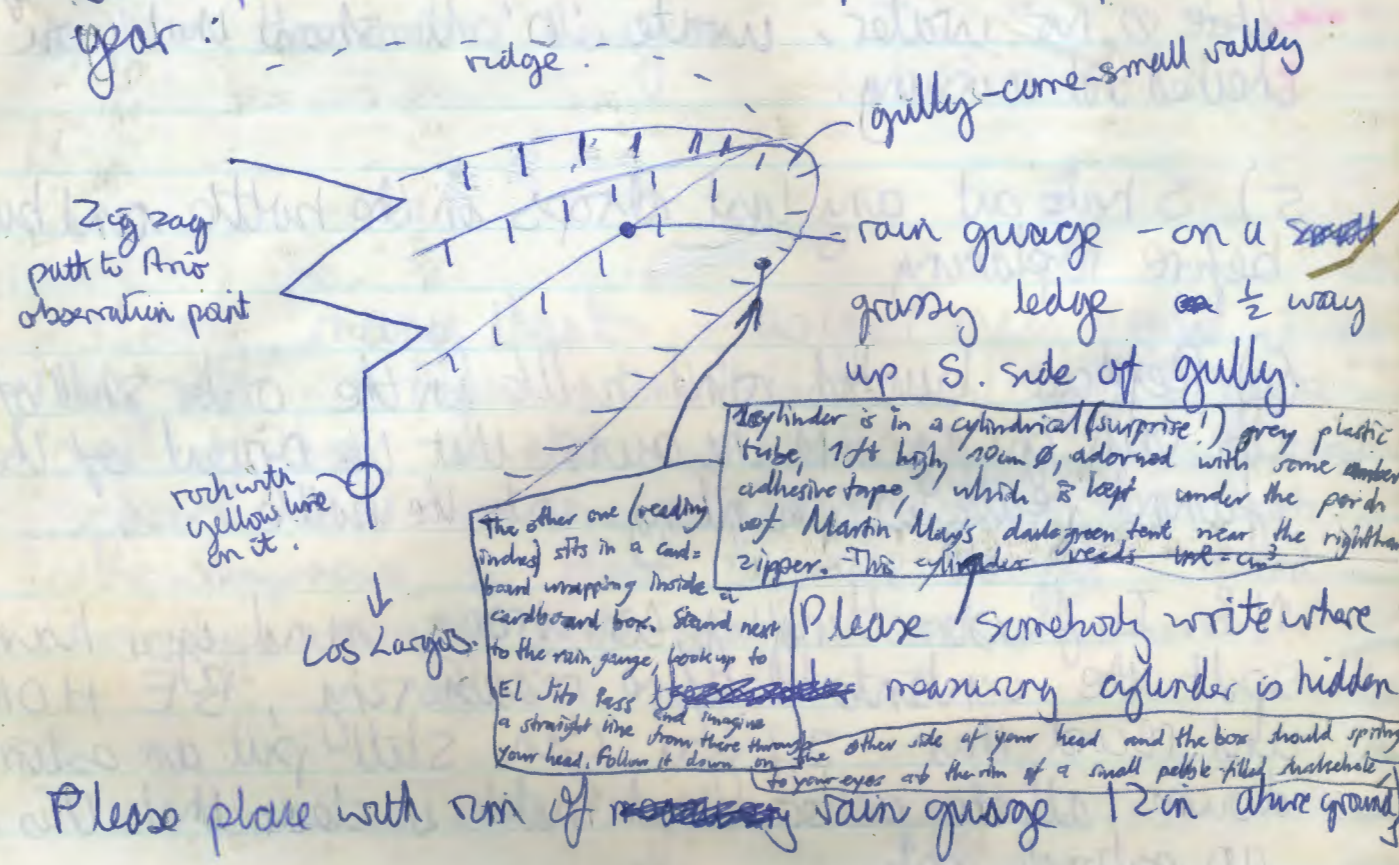
5 Release the arm from your friend's grip. Take the stilette out and connect up the fluid - the tube has a cap on the end which you take off, then push the connector on to the end of the Venflon and twist it to lock it.

6 Tape the Venflon and the tube down to the arm.

Metereological measurements etc.

1) Rain gauge

[I hope that this will be set up in same place as last year:



1) Please read at 0900 h every morning (LOCAL TIME)

If you don't make it by then, or are a little early, please put down the actual time and note whether this would have affected the amount of precipitation recorded.

2) Pour water from bottle (and from bucket in which it sits if there is any in that) into measuring cylinder. Read amount of precipitation from base of meniscus.

4) Record reading in the table below in ml (=cm<sup>3</sup>)

If rain has fallen, or heavy mist has been felt to precipitate, within the last 24 hrs, but this was insufficient to measure in the measuring cylinder, record 'Tr' (trace) in the table. Otherwise, if there is no water, write '0' to show that you have checked that morning.

5) Shake out any last drops in the bottle and bucket before replacing

6) Replace bucket and bottle in the outer shell of the rain gauge. Make sure that the spout of the funnel really is pointing into the bottle.

N.B. If something goes wrong and you have spilt the contents before measuring, BE HONEST and record this. If you can still put an estimate down, all the better, but make it clear that this is an estimate only.

## 2) Observations.

Feel free to put any remarks you like about the weather, but you might like to include.

- 1) Average cloud cover over last 24 hrs
- 2) Weather + for how long there was mist and rain
- 3) Temperature (eg 'blazing hot', 'on the chilly side' etc)
- 4) Wind (eg 'v. still', 'gusty', 'howling' etc etc)

Perhaps you were somewhere other than Ariv for most of that day. For instance on the walk up you may have suddenly disappeared into cloud

194

and can remember the altitude and time. Do put down details like this but note if the location was not Arico itself.

3) No thermometers this year.

Many, many thanks - as you may know it is likely that Stephen and Hilary will get a paper out of this - that will certainly impress future sponsors. But even one gap in a table does look rather unimpressive, so please do make the effort to record every day, especially if the weather is wet and miserable!

Table begins next page.

Winds refer to previous 24 hours.

... ..  
... ..  
... ..  
... ..

? front preceded by wis high wispy clouds. 0930 sky 6/8 covered cloudbase above all peaks. visibility moderate. second cloud top well below Los Lagos. William  
all rising clouds filling Xitu and Arrio basin

cloud level just on top of hill to NE of camp.

at Arrio, some <sup>short</sup> sunny patches in the morning, drizzle all afternoon 'till cloud at the height of Arrio,  $\frac{3}{8}$  cover wind light 0-1 D.H.

at 11pm yesterday. This morning sky clear + a few wisps of cirrus.

red with high clouds. Wind W 3 ~~km~~, second cloud top halfway to

rapidly though. Slight wind. Very thick fog/cloud such that finding the rain gauge

### Cloud v. faint breeze

in this morning. Wind <sup>2-3</sup> W this am. The rest of the time I was down the coast. Today. William

This morning sky 1/8 covered with high cumulus clouds, wind SE 2-3 at the Los Lagos. William

at midday. Obviously not here since camp intact. Slight of at of nimb stratus. Thunderstorm 2300-0100. 0900 Cloud top w/1200 n. 219  
X local.

(0900h)	(Local time)			
Date	Actual time	ml of Rainfall	Remarks and Observat	
Tue 9/7/85	Day that	you arrived	I hope	
W 10/7		Gauge set up about	11 a.m.	
Th 11/7	9.00	zero (1 small wasp)	Cold night, clear sky, light Warm/Hot morning already set	
F 12/7	9.00	zero (1 beetle)	Warmish hazy night, clear morning sky with breeze, fm NE	
Sat 13/7	0930	Zero (1 fly)	Yesterday still hot. This morning 0900 Wind SE gusting 5 but warm & close.	
Sun 14/7	0.920	0 = 1 live beetle	Cloud level almost exactly at Aris grade	
M 15/7	09:20	Trace	Misty at Aris all day yesterday, today	
Tu 16/7	9-00	0.09 inch	misty/low cloud all day yesterday late evening; this morning low	
W 17/7	0930	Cylinder found knocked over, Est'd as trace Righted cylinder.	Thin layer of low cloud/mist cleared Wind E force 2, W.S.S.	
Th 18/7	1025	Top of cylinder found knocked off, put back on, Est'd 0	Fine day yesterday. Today sky 2/8 two Lagos & advancing W.S.S.	
F 19/7	11.00 (wouldn't have affected water amount)	Trace (this would)	Beautifully clear early morning - clogged in was problematic (hence late time - sorry)	
Sat 20/7	9.4 4 (Adds ~1/2 mm!)	23 ml.	Horrible dense mist actually properly raised during	
Sun 21/7	12 ish	0.02 inches	Light mist last night. Today lovely sunny & zero	
M 22/7	1:30 pm Sorry. I Spent 18 hrs down 3/5	Nil	Boiling hot & cloudless yesterday morning There appear to be no clouds at any level	
Tu 23/7	0930	Nil	Boiling hot with cloudless sky yesterday. Mirador. Second cloud top at about level of	
W 24/7				
Th 25/7	0910	Nil (but see comments)	Squally conditions at Lagos Aris hit ~ 2200 from patch	

refer to previous 24 hours unless dated.

mist/rain (4 am)

found bottle gone and 1 cm<sup>3</sup> in the inner metal container, transferred this to the order container for later measuring -  
Sunny ~~all~~ all day sunbore - sunset. (27/7) *reading in Los Lagos Book SWR*

depression by 1700. Lenticular clouds over Arto. Wind force 5 N. MIST filled Arto at 2215 27/7 from S (Cares) *San Wlstermista 29/7*

@ 2200m moving E rapidly. Wind 6-7 SW. *today's* Log entry for measuring cylinder locations if you don't know than yet!  
torrential rainstorm! (until 10 am)

No clouds at all below Arto. Marvellous view of the lowlands from Jito pass.

appears in clouds. More rain during the evening.

whereas Cares gorge, Vega de Arto, Valley beyond El Jito towards *(Cold)* 10 am; faint drizzle at campsite. Later rain. *Lagos 30/7*

misty & misting over - dense fog at last. Some more rain.

cumulus clinging to various mountain-sides. Sunny. View from Jito to Lagos hazy. Clouds rising from Cares. Little wind.

totally in clouds. Following night: moon comes through -

of clouds with upper bound ~1300-1400m. Cold. Wind 0-1.

alley towards evening. Clear skies.

morning. High wispy clouds. Another cloud bank at level of Xitu ridge

(4/8/85) Light wind (NE with many eddies).

nasty cold gusts of wind.

les of moonshine) all night and most of yesterday. Cold. Gusty wind 0-5. a bit in the afternoon. Sun comes out at last and rain stops ~6pm. Very cold. later clear blue sky, hot sun (7/8/85). Wind force 2.

given it was very hot, clear blueskies etc, like it was below. *has managed to* *survive* the assaults by the cows is anyone's guess. Y.W.

Date (0900)	(Local time) Actual time	Rainfall/ml	Remarks + Observations
F 26/7	~ 9am	0.01"	Horrible Cluggy day with haze Will have a look at
Sat 27/7	09.05	0.01"	Clear Sunny morning. Haze low so really Thick cumulostratus <sup>up</sup> to rim of Arrio
Sun 28/7	09.40	1.5 ml (no rain since 9am)	28/7 morning: Clouds 7/8 @ 3000m (Paisa Santa visible) with 3pm: stationary cirrus (at 3000m?) way above nasty grey cumulus Cooling down (77°C?) 28/7 5pm: drizzle turns into
M 29/7	09.20 (no rain since 9am)	154. ml !! de two drowned flies	28/7 morning: Clouds 7/8 @ 2200m. Cold, <del>W</del> Wind 1 S. Afternoon, several showers. 3pm Vega de Arrio dis- 29/7
Tu 30/7	09.30 (no rain since 9am)	112. ml	30/7 morning: Sunrise soon swallowed by 8/8 clouds descending crowds 30/7 afternoon: clearing up a bit for some sunshine. Evening
Wed 31/7	09.30 (no rain since 9am)	Found funnel & bottle pulled out & lying 3ft from the bucket. Total contents of funnel, bottle & bucket about 2.5ml. Puzzling since we've had at least 30ml rain at Arrio. Perhaps the cows have licked it out.	31/7 morning: 1/8 cirrus plus bits of 31/7 afternoon: complete
Th 1/8	09.00	Rain gauge leached over. Reassembled it and wedged bucket with pebbles. Est'd as Trace.	1/8 3/8 clouds @ 1000m. Lags under separate layer of
F 2/8	10.00	0.01"	Clear day but with mist over in rain gauge Fairly cool night.
Sat 3/8	08.45	0 (funnel top knocked off)	Lot of dew overnight. Clear but fairly chilly
Sun 4/8	09.32	Trace	Blue sky, hot sun. High cirrostratus
M 5/8	09.30 (same) 10.00 read again	2ml about 2/3 of which actually belong into tomorrow's reading by J.H. - 6/10 of smallest	Rain beginning 8 <sup>45</sup> am, completely inside a cloudy division on the inner cylinder (0.006")
Tu 6/8	09.00	153 ml	Has been raining (with very brief interludes 6/8. rain continues all morning. Clears up
W 7/8	1300	0.395 in	Ground frost. High altocumulus early,
Th 8/8	1030	0 (one flower bud! funnel top knocked off)	No one was here, after Lagos but 1 8/8; 9 <sup>20</sup> pm: checked Met-station on the way
F 9/8	0940	0	cloudless, sunny, hazy in the distance 9/8 12noon: some cirri & alto cumuli gathering
Sat 10/8	1417	not read	Overcast 8/8, thin cloud at level of Tultayuc.
Sun 11/8		Phil Sargent should have read.	



(5m visibility, apart from the still illuminated Refugio) but <sup>on</sup> the walk up down Lago, ~~that been~~ 20m visibility or more on the average. Hardly any wind, only 1E right on the pro pass.   
 Slightly misted, cool wind 13 SE.

cloudy all day.

08:00	0.35	1/8
09:00	0.35	1/8
10:00	0.35	1/8
11:00	0.35	1/8
12:00	0.35	1/8
13:00	0.35	1/8
14:00	0.35	1/8
15:00	0.35	1/8
16:00	0.35	1/8
17:00	0.35	1/8
18:00	0.35	1/8
19:00	0.35	1/8
20:00	0.35	1/8
21:00	0.35	1/8
22:00	0.35	1/8
23:00	0.35	1/8
00:00	0.35	1/8
01:00	0.35	1/8
02:00	0.35	1/8
03:00	0.35	1/8
04:00	0.35	1/8
05:00	0.35	1/8
06:00	0.35	1/8
07:00	0.35	1/8

Date (0900)	(Local time) Actual time	Rainfall/ml	Remarks + Observations
M 12/8		John Hatch should have read	1218 i 11pm: Vega de Arrio in dense fog
Tu 13/8		gill reads on way to Top Camp	830am: S/Cirrus & Cirrostratus, sunny, mfd.
W 14/8			
Th 15/8			
F 16/8			
Sat 17/8	1339	trace.	From top camp it looked like it was with occasional hazy sunshine
Sun 18/8			
M 19/8			
Tu 20/8			
W 21/8			
Th 22/8			

(BII)

INFECTED OR RED EYES are usually due to a conjunctivitis caused by a bacterium. Optrex is not very useful. Use Polyfax or tetracycline eye ointment 3 or 4 times a day. Put a little snake of cream on the turned down lower eyelid. Put the upper eyelid over it and massage gently. This should clear the infection in the course of a couple of days.

ATHLETES FOOT This can be particularly tiresome if you have sweaty feet. Wash your feet thoroughly and dust the feet and socks with Mycil or some similar antifungal dusting powder.

FLEAS AND LICE Dust your clothes and sleeping bag with flea powder (kills pests on pets and undergraduates!). Go to the nearest pet shop and ask for dog flea powder. Hunt for fleas and lice on you. If badly bitten use Betnovate or Synalar cream or Eurax cream.

TAPEWORMS AND ROUNDWORMS For tapeworm take Yomesan (niclomaside 500 mg) four tablets, chew well and wash down with water. A cascara tablet should be taken as a purgative. For roundworm take Vermox (mebendazole 100 mg) one night and morning for three days.

AMOEBIASIS If you think you have got amoebiasis (bloody diarrhoea) take tinidazole 2 gms (four tablets) every morning for three days and then Furamide, one tablet (of 500 mgs) three times a day for five days.

HIGH ALTITUDE Note that above 8-10,000 feet the contents of full tubes of ointment will shoot out under pressure. Unscrew cap with care. You may be given Diamox 500 mgs twice a day to counteract mountain sickness.

GENERAL NOTE

It is important that drugs not used are handed in to me for use of future expeditions, or burnt. They could be dangerous particularly for children and in foreign parts any expedition refuse is often avidly collected by the locals.

Bent Juel-Jensen.  
University of Oxford.  
Trinity, 1984.

812

*Remember use with Care in rather*

**ECZEMA** With irritating skin conditions, use ~~Banarate~~ cream locally or Vioform and hydrocortisone cream. Both contain steroid and an antiseptic.

**DISINFECTANTS** For cuts and scratches use tincture of iodine unless you are hypersensitive to iodine. Bigger cuts may be washed out with Savlon. A sachet of Savlon concentrate will make a pint of disinfectant ready for use.

**MOTION SICKNESS** Marzine tablets, 1 every two to four hours, or Dramamine tablets, 1 every two to four hours, help most people.

**SORE THROATS** Most are not due to bacteria and a soothing gargle with some soluble Aspirin (Disprin) usually takes the worst agony away. If the throat is dark red and very sore it is possible you may have a bacterial infection and if you have a fever, take clindamycin (150 mg capsule) or erythromycin 1 four times a day for five days.

*Rohypidol*

**SLEEPING TABLETS** You have been given ~~Mogadon~~ (nitrazepan) 1 mg. One will send the average adult off to sleep. If one does not work you can safely take two or even three.

**N.B.** Keep these tablets safely and ensure that they do not fall into the hands of children or irresponsible people.

**HEADACHES AND OTHER PAINS AND ACHES** You have been given ~~Parasodol~~ (paracetamol and ~~codeine phosphate~~) tablets. ~~Each tablet is in tinfoil.~~ Dissolve 2 tablets in a little sterilized water and swallow. Do not eat tablets dry, the tablets will fizz all the way down if you do.

As an alternative use soluble aspirin, 2 tablets, which may be taken every four hours. Cut the dose if you get ringing in the ears.

*Gaviscon*

**INDIGESTION** Use ~~Aten~~ tablets, chew or suck one or two as often as necessary.

**SUNBURN** Avoid going into blazing sunshine or working by the sea unless you have used Uvistat ointment on the exposed part of your body, and pomade on your lips.

**MOSQUITOES AND FLIES** If you are in an area where there are tsetse flies, black flies (simulium damnosum), or a lot of anopheles or aedes, you must use a mosquito net. Both in the Tropics and Arctic and Antarctic mosquitoes can be a nuisance. They will descend in their millions from nowhere and you should have a good mosquito repellent. The best is a mixture of 2-ethyl-1-3-hexandiol (94 G/l), 56.4 ml and N, N-diethyl-m-tolumide (99.7 G/l) 6.3 ml and industrial methylated spirit 66 O.P. to 1 litre. It can be bought in America and Sweden. The Swedish variety is known as Djungel Olja 3 x 6. Do not put it in the eyes or in the mouth.

In some parts of the Arctic tiny flies can be a great nuisance, crawling into the ears, eyes, mouth and nose. Insect repellent does not work on them, but the local population usually will be able to advise you. In Greenland you should go to the Royal Greenland Trading Company (KGH) and buy a very fine mesh shopping bag, put it over your head and wear mittens. This works. Do not put a polythene bag over your head: you stand a reasonable chance of asphyxiating very rapidly.

**TYPHUS** If you are going to areas where you are likely to encounter rickettsial disease (epidemic typhus, tick typhus, scrub typhus, Rocky Mountain spotted fever) you may be given a supply of tetracycline. If you get a fever (particularly following a tick bite) take two, 4 times a day for a week, and then one 4 times a day for a further week.

IMPORTANT INSTRUCTIONS

*Thompson  
- W. D. S. P. C.  
P. H. W. L. :- 12*

DIARRHOEA. Much of the diarrhoea encountered in foreign parts is due to change of diet. Some is due to infection. Prevention is important and half the battle is won by taking simple precautions. Travellers often show a remarkable lack of common sense. Spanish pears may be luscious, but if a Spaniard eats 8 large Spanish pears he will get diarrhoea, so eat fruit in moderation. If you do eat fresh vegetables or fruit make sure that these are washed in water purified with Sterotabs (or Puritabs). Salads that include green lettuce are particularly hazardous. Vegetables are often manured with human dung, and those with a large surface (such as lettuce) are particularly dangerous. You have a little free acid in your stomach, it will cope with a few nasty germs, but not with a lot. Cucumber and tomato salads are relatively safe. If you get diarrhoea, take codeine phosphate, two 30 mg tablets, every 4 hours until the diarrhoea has stopped, or take Lomotil, 4 tablets at once, and then 2 tablets four hourly until the diarrhoea has stopped. You may have been given Imodium (loperamide): take two capsules at once, and then one every time you have a motion until you seize up. If none of these stop the diarrhoea and you are feeling ill, and particularly if you are passing stools with blood and mucus, take Septrin or Bactrim (cotrimoxazole) ~~two~~ tablet twice a day for five days. You may have been given Amoxil (amoxycillin) 500 mg capsule. Take ~~two~~ <sup>two</sup>, four times a day for five days. If this does not clear the diarrhoea you must seek medical help. Septrin or Bactrim should not be taken by people that are hypersensitive to sulphonamide. Amoxil should not be taken by people who are hypersensitive to penicillin.

*500 mg capsule*

OTHER INFECTIONS Do not use antimicrobials recklessly. If you have boils and a raised temperature, or infected wounds, or you think you have pneumonia or bronchitis it is reasonable to take a drug. For boils and infected wounds use first clindamycin. The capsules are 150 mg. Take one tablet four times a day. If you are no better at the end of 72 hours, take Septrin (or Bactrim) two tablets (or capsules) twice a day for five days. (Remember that the latter must not be given to people who are hypersensitive to sulpha drugs). Do not give both drugs at once. If you are in doubt you must seek medical advice.

*Don't use clindamycin it's not nice really*

*The white, get out, best, it's not*

Some of you may be given flucloxacillin (Floxapen). This is also useful for infected wounds, boils. Take one capsule (250 mg) four times a day. If the infection is not better after three days go on to Septrin or Bactrim as above.

HEAT EXHAUSTION AND SUNSTROKE. Keep your water and salt requirements in balance (see other sheet).

ANTI-HISTAMINES These drugs suppress allergic reactions of various sorts and are useful in suppressing nettle-rash, itchy skin conditions, hay fever, and to some extent mild asthmatic wheeze. Remember that they all, but to a varying extent, tend to make you sleepy. Do not drive if you are at all drowsy. You will have two drugs, Pro-Actadil and Phenergan. Each tablet of the former is of 10 mg, the latter 10 mg or 25 mg.

PRO-ACTADIL is suitable for use in the day time. One once a day may be adequate but one may be taken at night and morning if necessary.

PHENERGAN The most powerful antihistamine, is likely to make you sleepy, so take preferably at night. Do not take if you are driving. The 25 mg tablet is very potent.

DRUGS - HOW TO USE THEM

**ACROMYCIN** Tetracycline eye ointment. Only use this if your eye is actually producing pus (ugh). Apply to inside of eyelids 3x /day.

**AMOXIL** Chest infections, with green or yellow sputum only. 500mg 3x /day for five days at least.  
Might also work for cystitis but Trimethoprim/Septin is better. Also use for cellulitis (red, v. inflamed & sore skin patches around cuts or grazes).

**BACTRIM** Septin. For Cystitis. One tablet twice daily, FOR FIVE TO SEVEN DAYS. Two tabs for bad goes.

**BETNOVATE and BETNOVATE-C** Powerful steroid ointment. DO NOT USE except under qualified supervision. Do not use for rashes. Do not use for burns.

**CODEINE PHOSPHATE** For shits. As Lomotil.  
Also - it's a good painkiller - better than aspirin / paracetamol (but it bungs you up!).

**DAKTARIN** For really nasty jock-rot & skin rashes which can't be cured any other way (ie by leaving them alone). Use as per leaflet in box.

**DALACIN** An antibiotic. Broad spectrum, effective but can cause unpleasant colitis (bloody shits+). Use other antibiotics (eg. Amoxil/Septin) rather than this.

**DIOXALYTE** For the shits. Make up and drink to replace lost fluid.  
If you run out, make your own:  
1 litre boiled water  
1 tablespoon sugar  
1 teaspoon salt

Cheers!

**EVRAX** Use for itchy rashes, NOT if they're oozing or blistered.

**PASIGYN** Tinidazole. For amoebiasis - chronic, really appalling bloody foul shits which won't go away any other way.  
Take as per directed on JJ's sheet.

**FLAGYL** Specialised antibiotic, qualified use only. One tablet 3x /day, for 7-10 days. NO ALCOHOL.  
For: - certain types of diarrhoea or vaginitis (thrush).

**FLOXAPEN** Antibiotic for use only for Amoxil-resistant infection, under qualified supervision.  
Weaker than Amoxil but works on more bugs. One or two capsules, 3x /day, for 5-7 days.

**CAVISCAN** Makes a sort of raft on the contents of your stomach, which plugs up your gullet and stops honk coming up when you lie down.  
Use for Heartburn.  
Also said to be good for hangovers, though I (Tom) haven't tried it and can't imagine why it might work. (ps. I now have and it doesn't!)

**IPRAL** See Trimethoprim.

**LOMOTIL** For shits, if it's really inconvenient. If you've got the shits, something in there wants to come out. Use with caution and not for long periods (ie. more than a few days).

**MARZINE** Prevents Travel sickness.

**MYCIL** First remedy for athlete's foot. Use as directed, with the prickly heat powder.  
Use for foot or jock - rot.  
If doesn't work after a few days, try Daktarin.

**PIBITON, PROACTIL, PHENERGAN** Antihistamines (for hay fever).  
Use pibiton first, then (if it doesn't work) proactil, then (ditto) phenergan.  
Phenergan is also good for a night's sleep, if you don't mind sleeping the day after as well.  
DO NOT MIX WITH DRINKING OR DRIVING

**POLYPAX** Eye ointment. For milder nasties than achromycin; apply to inside of eyelids 3x /day.

**ROHRPNOL** Sleeping pills. Don't work for pain.

**TRIMETHOPRIM (Ipral)** As Bactrim (but if you start on one, don't change to the other). One tablet twice daily for 5-7 days.

**VERMOX** For worm infestations, not very likely in Spain.

(BIS)

2

**CAVER - HEAL THYSELF !**  
A guide to the medicines herein

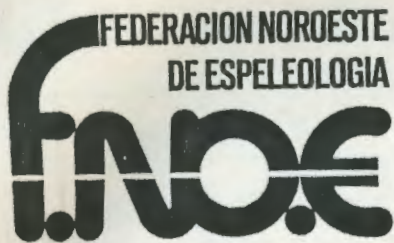
**WARNING-** A lot of the stuff in this box is powerful juju indeed. Refer to the "Drugs - how to use them" sheet BEFORE taking anything other than aspirin ! Items marked \*\* are quite drastic and should only be taken in dire emergency, after consulting a doctor. If it's that bad, maybe you should be in hospital.

<b>AILMENT</b>	<b>DRUG</b>
<b>SHITS</b>	Codeine Phosphate Lomotil Dioralyte (replaces lost fluid) Fasigyn **
<b>CHUNDERS</b>	Gaviscon Marzine (?)
<b>PAIN</b>	Aspirin Paracetamol Watch it ! Aspirin causes gut bleeding and overdose of Paracetamol is VERY NASTY indeed. Codeine Phosphate (?)
<b>FESTERS</b>	Try Savlon FIRST Mycil Daktarin **
<b>RASHES</b>	Try Savlon FIRST Evrax
<b>BURNS</b>	Cold water, use burn bags, or leave exposed to harden. Keep clean (Savlon).
<b>NASTY EYES</b>	Polyfax Acromycin
<b>HAY FEVER</b>	Piriton Proactil Phenergan
<b>ANTIBIOTICS</b>	None of these to be used trivially. Amoxil Bactrim Trimethoprim Ipral Dalacin ** Flagyl ** Floaxapen **
<b>ECZEMA</b>	Betnovate ** (see Urs if no Doc.)
<b>CAN'T SLEEP</b>	Alcohol ? Oh, all right, try Rohypnol Phenergan ?
<b>WORMS !</b>	Vermox





PERMIS



OXFORD UNIVERSITY CAVE CLUB  
Steven G. Roberts  
OXFORD  
INGLATERRA

FEDERACION NO. DE ESPELEOLOGIA  
c/ Foncalada, 15, 8ª izda.  
33002 - OVIEDO

24/6/85

Examinada la solicitud presentada por el O.U.C.C. para la realización de trabajos espeleológicos durante 1985 en la provincia de Asturias, dentro de los concejos de Onís y Cangas de Onís, la Asamblea Territorial de esta Federación celebrada el 25 de Mayo del presente año ha acordado la autorización para los mismos.

DURACION: todo el año 1985 ( Campaña de verano del 10 de Julio al 22 de Agosto, y cualquier otra posible actividad dentro del período anual indicado ).

ZONA : Delimitada topográficamente en fotocopia adjunta del plano 1/50.000 del IGN, dentro del Macizo Occidental de los Picos de Europa y Parque Nacional de la Montaña de Covadonga. Al N. de la divisoria provincial con León, entre las cumbres de la Punta Gregoriana y Cabeza Llabria, cerrando el contorno la Pica la Jorcada, Conjurtao, pico Gustuteru, Cabeza la Forma, Cabeza Julagua y Cabeza Verde.

La Entidad solicitante debe cumplir las normas administrativas relacionadas con el Parque Nacional, en todo lo tocante a acampadas y respeto del medio exterior y subterráneo. Asimismo, en el plazo de seis meses tras la finalización de los trabajos, remitirá a esta F.NO.E. un informe completo de los estudios realizados, que incluirá:

- Coordenadas geográficas de cada cavidad, y/o localización precisa de las mismas sobre un plano 1/50.000 o más detallado.
- Plano topográfico ( cuando se haya realizado ) y descripción de las cavidades, junto a cualquier otro dato o estudio complementario de interés para la elaboración del Catálogo de Cavidades y un mejor conocimiento de la zona.

El envío de este informe es condición previa e imprescindible a una posible renovación de la autorización para 1986.

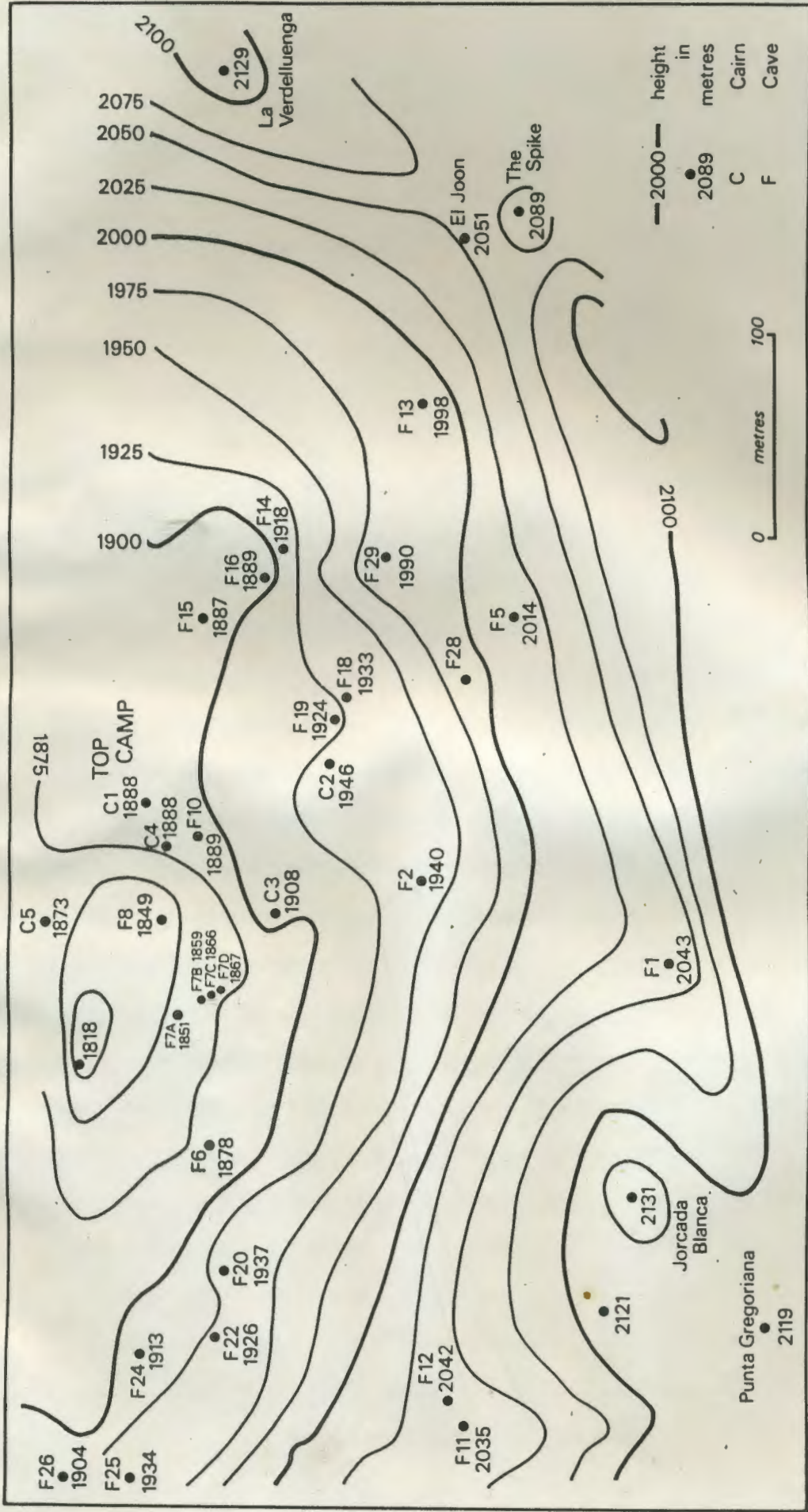
Juan José González Suárez



SCALE 1:2000  
 20 40 60 80 200m  
 Contour Interval 10m

- Streamway Streambed
  - Path (surveyed)
  - Path (unsurveyed)
  - Boundary of wood
  - Contour, Depression
  - Slope: where contours are inadequate to describe surface features
  - Shear face
  - Shale-hole / Small depression
  - Tree
  - Cave
  - Cave reference number
- Note: Contours by spot heights, clinometer, sketch maps and photographs





Location of caves around Top Camp

NAME	(B21)	BEERS CANS	VINO	LITROS
SGR			675 pd	2 to be accounted for
D.R.	<del>    </del>		2380 owed	15 July pd exp.
P.R.			<del>   </del>     1310 owed	225/4 900 pd
G.M.			4	
M May			410 owed	
W.S.			860 owed	pd exp
D.H.			635 pd	
SM			450 owed	pd exp
RG			860 owed	pd exp
PB			225 pd.	
SW			225 owed	pd exp
P.D.			225 owed	
A.D.			225 owed	pd exp
FW			<del>    </del>     1985 Pd.	
SWR SCR			225 owed	pd exp
GN			450 owed	
IW			185 owed	pd exp
SS D			185 owed	pd exp
SDW			450 owed	pd exp.
UC			450 pd	
JDG			225 pd	
PMS			225 pd	

Fred says this should be "UR"  
 FRED CAN FUCK OFF  
 U

16

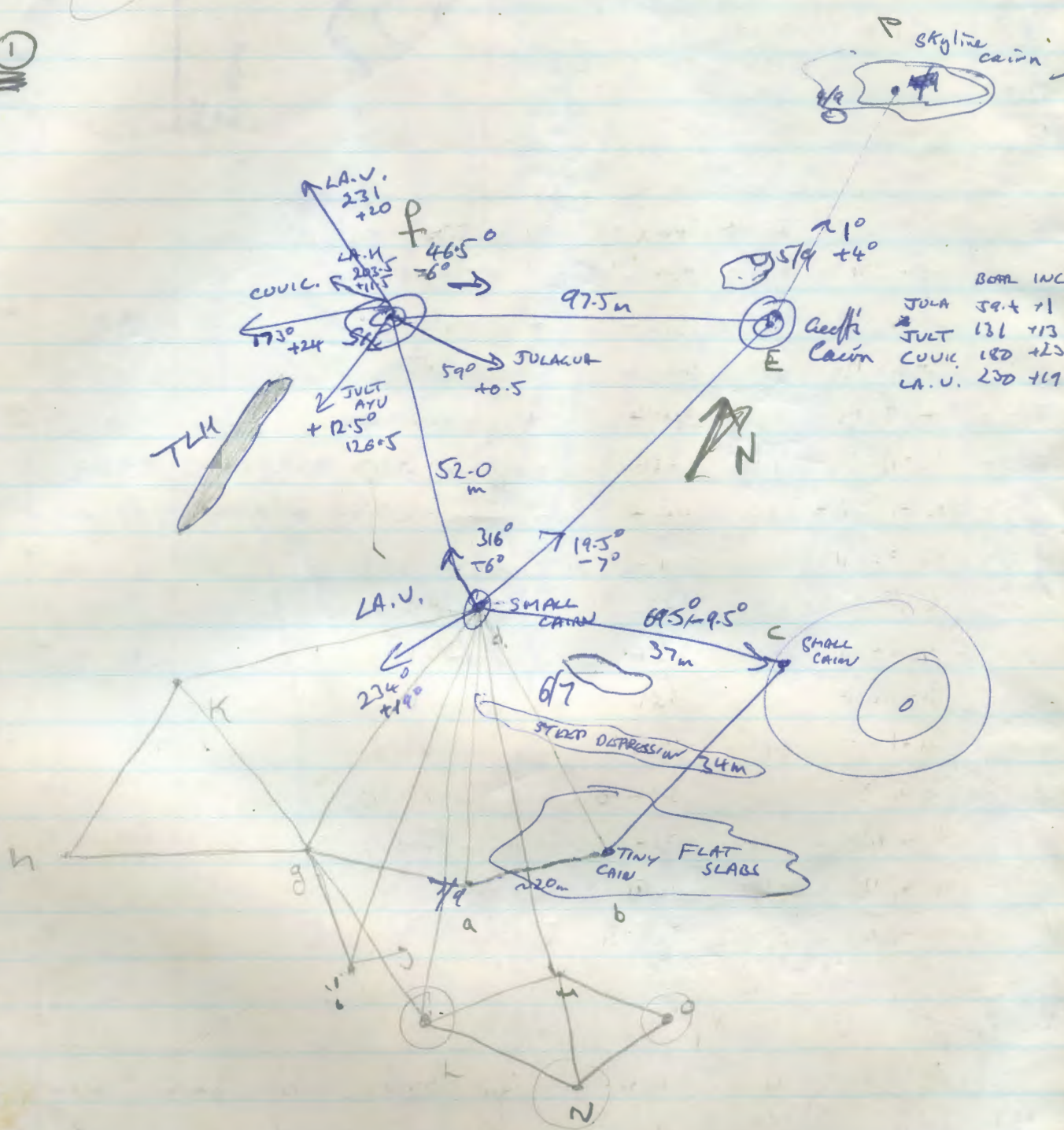
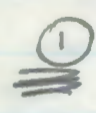
46

185			
<u>1480</u>	185	225	185
64		5	
900		<u>7125</u>	
		12	
2380		185	
		<u>1310</u>	
225			
<u>185</u>			
.10			
.10			

235
<u>3</u>
675
<u>185</u>
860
1

1322

# Surface Surveys of around Area 9.



	BORN	INC
JULAC	59.4	+1
JULC	131	+13
COVIC	180	+23
LA.V.	230	+19

	Beat	INC
A → B	45	-5
G → A	31	-10
G → H	190	+20
i → G	267	-12
δ → u	215	+3
v → D	317	-5

13 INC

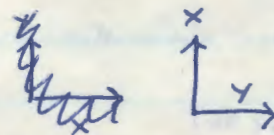
JULA. 645 +1  
 JULY. 135 +12  
 CIVIC. 178 +20  
 LA.H. 202 +8

	BEAR	INC	BEAR	INC	BEAR	INC	BEAR	INC
	138	-2	114	+9	21	-7	341.5	+0
	316	-9	284	-18	4	-11	33	-8
	302.5	-13	261	+11.5	267	-4	299.5	+12.5
	319	+7.5	241	-3	271.5	+3		

Bearings	H		S		L		O	
	Bear	INC	Bear	INC	Bear	INC	Bear	INC
Selagua	58	+1	-	-	55	-1	52.5	+1
Tulkay	181	+32	188	+34	123	13	124.5	+24.5
Covichetti	238	+20	243	+22				-8
La Verd!	321	+9	319	+9	237.5	21	239	+22.5

276

$r = \text{dist}$   
 $\theta = \text{bearing}$   
 $\phi = \text{inclination}$



$x = \text{North}$

$x = r \sin \theta \cos \phi$

$y = \text{East}$

$y = r \sin \theta \sin \phi$

$z = \text{down UP}$

$z = r \cos \phi$

$\text{Ext} = \text{extended elevation}$

$\text{Ext} = r \cos \phi$

How to set up Geoff's calculator for converting spherical coordinates into cartesian coordinates, according to the above conventions.

1 Programming - If the program is not yet stored,

1.1 2nd CP clears the program storage

2nd PART 1 Z defines program/memory space division (displays "15.11")

LRN switches to programming mode (displays "ST")

1.2 The program:

LBL A

RCL 01

x<=t

RCL 03

2nd PAR

R/S

x<=t

R/S

x<=t

REV 02

2nd PAR

R/S

x<=t

R/S

RST

LRN switches back to calculating mode

(press the figure keys slowly the display must show "01" here)

q/n 15.7-85  
see over for more comfortable version

2 Calculating - 21 enter length of leg

22 STD 01

23 enter bearing

24 STD 02

25 enter inclination (+ = up, - = down)

26 F0 03

27 A shows Δe

R/S shows ext. elev.

R/S shows Δy

R/S shows Δx

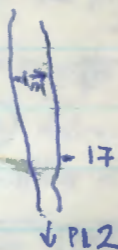
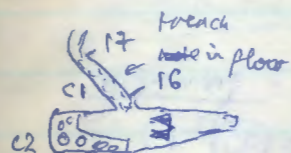
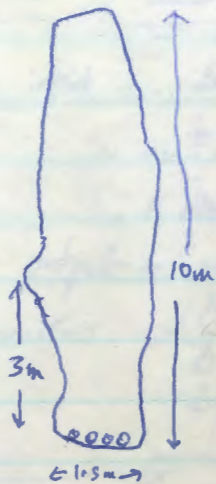
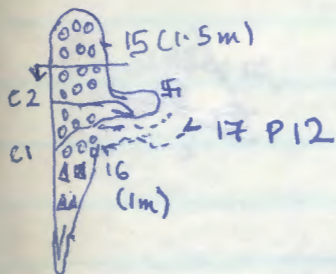
28 for reverse bearings, note the Δx, Δy, Δz each with the opposite sign.

29 repeat the above (as from 21) for each leg.

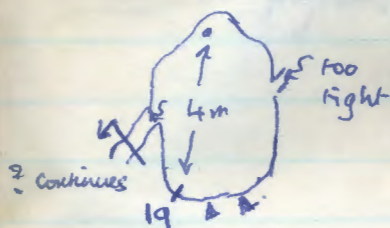


~~sketches from~~

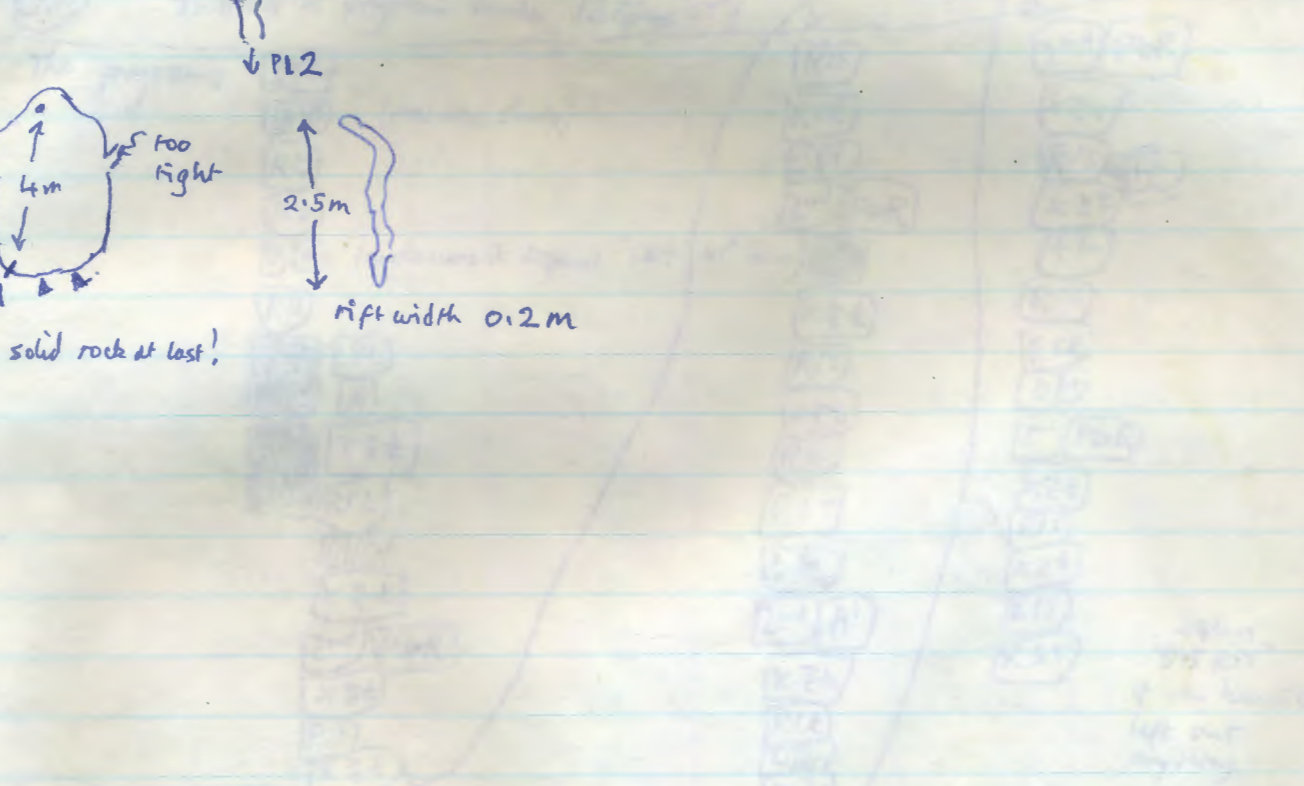
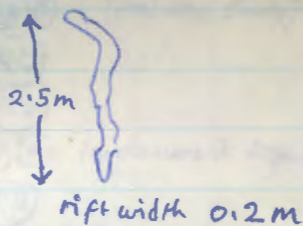
3/5 Alternative Route (cont-4)



NB. Station 18 is on a ledge halfway down the pitch.



floor solid rock at last!



279

# Surface Survey of Area 9

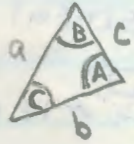
(1)

Using letter notation as in (1)  
sine rule

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

cosine rule

$$a^2 = b^2 + c^2 - 2bc \cos A$$



Survey of relative positions is no peak readings.

Points	Horizontal Dist	Vertical Dist	Bearing
F → E	97	-10	46.5
D → F	51.7	-5.4	316

(2)

Conversion of raw surface data into cartesian coordinates, release 1.2  
 (using Geoff's calculator) (1329)

Conventions:

input - length of leg in m  
 bearing in  $^{\circ}$   
 inclination in  $^{\circ}$ , positive = up, negative = down

output - extended elevation in m (always positive)

$\Delta z$   
 $\Delta x$   
 $\Delta y$  } in m: positive x going north  
 positive y going east  
 positive z going up

Programming: (if the program isn't already stored)

- 2<sup>nd</sup> CP clears program memory
- 2<sup>nd</sup> PART (1) (2) defines prog. memory space (displays "415.11")
- LRN switches to program mode (displays "ST")

The program:

STD  
 0/0 (press keys slowly)  
 RIS  
 STD  
 0/1 (make sure it displays "004 01" here)  
 RIS  
~~LBL~~  
~~A~~  
~~RCL~~  
~~X $\rightleftharpoons$ T~~  
 RCL  
 0/0  
 X $\rightleftharpoons$ T  
 2<sup>nd</sup> PDR  
 X $\rightleftharpoons$ T  
 RIS  
 X $\rightleftharpoons$ T

RIS  
 RCL  
 0/1  
 2<sup>nd</sup> PDR  
~~0/0~~  
 X $\rightleftharpoons$ T  
 RIS  
 X $\rightleftharpoons$ T  
 RIS  
 RST  
 LBL  
 2<sup>nd</sup> A'  
 X $\rightleftharpoons$ T  
 RCL  
 0/0  
 X $\rightleftharpoons$ T

2<sup>nd</sup> PDR  
 X $\rightleftharpoons$ T  
 RIS  
 X $\rightleftharpoons$ T  
 +/-  
 +/-  
 RIS  
 RCL  
 0/1  
 2<sup>nd</sup> PDR  
 X $\rightleftharpoons$ T  
 RIS  
 X $\rightleftharpoons$ T  
 RIS  
 RST

displays "045 RST" if you haven't left out anything

LRN switches back to calculating mode

Use: for each leg type RST length of leg RIS bearing RIS inclination  
 then for a forward leg, A — for a backward leg, 2<sup>nd</sup> A'

- after a while, the display shows the extended elevation.
- press RIS to show  $\Delta z$ , RIS again to show  $\Delta x$  (takes a while),
- RIS again to show  $\Delta y$ .
- repeat the above per leg.

Don't press any other keys between these or you'll get funny results.  
 15-7-85

530

R. Rose Survey station 315 from  
to Wingerts Riff to Kater 20/7/85

Station	Time	Compass	Clino	Stn Ht etc (Approx)
2 → 1	<del>13/22</del> <sup>8/39</sup>	131/15	+24	1/45 ①
2 → 3	6/9	311	-44	4/0 ③
4 → 3	4/95	063	+62	4/95 ④
4 → 5	1/51	041	-31	1/00 ⑤
6 → 5	3/69	111	+13	0/8 ⑥
6 → 7	1/25	260	+9	⑦ 0/40 from delay.
8 → 7	20/11	-	+90	⑧ 1/15
9 → 8	14/66	136	-4	
9 → 10	37/50	-	-90	⑩ 1/60
11 → 10	13/14	325	+24	⑪ 4/100
11 → 12	3/30	166	-35	⑫ 2/100
13 → 12	5/63	279	-13	⑬ 4/100
13 → 14	5/55	171	-29	⑭ 4/100
15 → 14	3/48	330	+75	⑮ 5/60
16 → 15	2/14	237	-2	⑯ 1/70
16 → 17	1/29	345	0	⑰ 1/90
17 → 18	1/08	118	-7	⑱ 1/80
19 → 18	1/14	339	+12	⑲ 1/70
20 → 19	3/46	261	+5	⑳ 1/60
20 → 21	2/08	046	+45	㉑ 3/100
21 → 22	3/21	100	-4	㉒ 4/00
22 → 23	2/32	032	+1	—
23 → 24	4/02	085	-35	㉔ 7/50
25 → 24	8/24	281	+32	㉕ 4/100
25 → 26	3/83	135	-26	㉖ 2/70
27 → 26	4/05	3853	+10	㉗ 10/30
27 → 28	9/62	144	-54	㉘ 8/20
29 → 28	8/72	300	+70	㉙ 4/00
29 → 30	27/22	114	-74	㉚ 1/50

Calculated with the ~~and~~ ~~Graph~~ ~~add~~ Program

ExVEL	$\Delta x$	$\Delta x$	$x_{cm}$	$\Delta y$	$y_{cm}$
7.66	-3.41	5.082	502	-5.78	-5.78
4.96	-4.79	3.26	828	-3.75	-9.53
2.32	-4.37	-1.05	723	-2.07	-11.6
1.29	-0.78	0.98	821	0.95	-10.75
3.60	-0.83	1.29	9.5	-3.36	-14.11
1.23	0.14	-0.21	924	-1.22	-15.33
0	-20.11	0		0	-15.33
14.6	1.02	10.52	19.81	-10.16	-25.49
0	-37.50	0	19.81	0	-25.49
12	-5.34	-9.83	9.98	6.89	-18.6
2.7	-1.89	-2.62	736	0.65	-17.95
5.99	1.27	-4.80	2.56	-2.66	-20.61
4.85	-2.64	-4.79	-223	0.76	-19.85
0.9	-3.36	-6.78	-9.01	0.45	-19.4
2.19	0.075	1.16	-7.91	1.79	-17.6
1.29	0	1.24	-8.67	-0.33	-17.99
1.07	-0.13	-0.503	-7.173	0.946	-16.99
1.11	-0.24	-1.04	-8.21	0.90	-16.59
3.45	-0.3	0.54	-7.67	3.4	-13.19
1.47	1.47	1.02	-6.65	1.06	-13.13
3.2	-0.22	-0.56	-7.21	3.15	-9.98
2.32	0.04	1.97	-5.24	1.23	-8.75
3.29	-2.3	0.29	-4.95	3.28	-5.47
6.99	-4.37	-1.33	-6.28	6.86	1.39
3.44	-1.88	-2.43	-8.71	2.43	3.82
3.44	-0.7	-3.98	-12.67	-0.789	3.33
5.65	-7.78	-4.57	-17.24	3.32	6.69
2.98	-8.19	-1.49	-18.73	2.58	7.23
7.5	-26.17	-3.05	-21.72	6.85	16.8

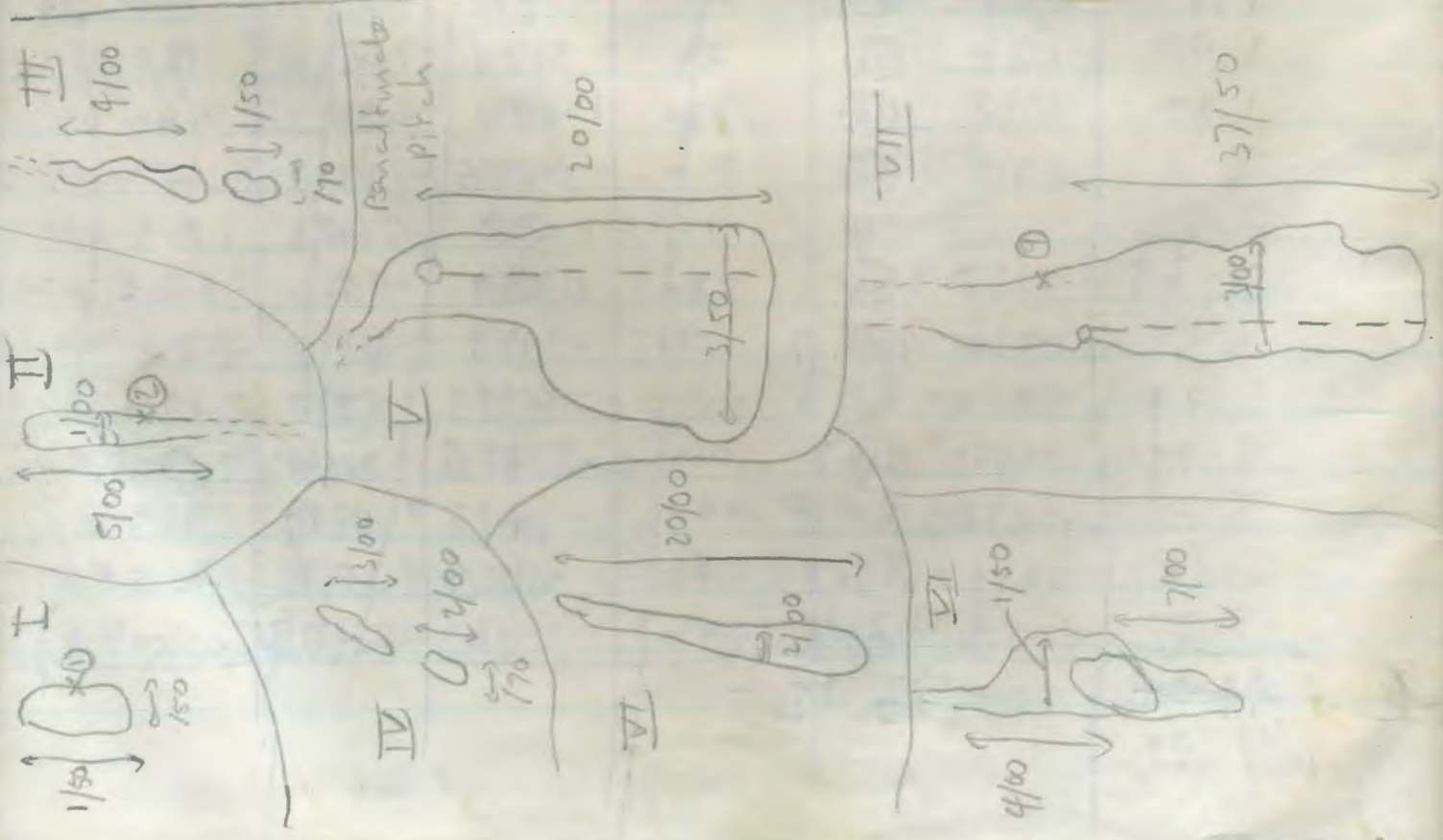
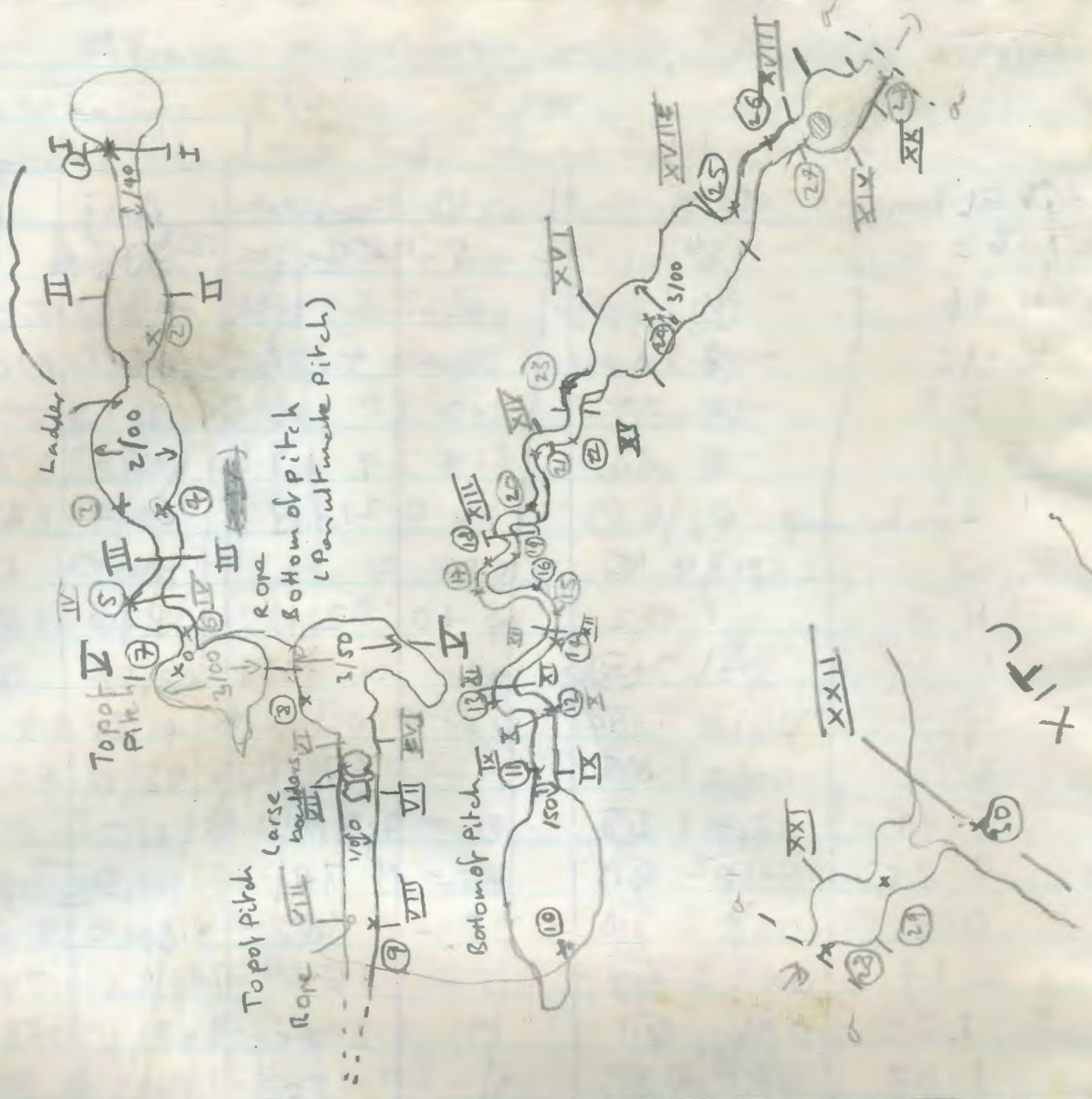
~~44.25~~  
111.49

-133.125

(22)

Plan

win 2000 ft.





See Next Page for continuation.



B34

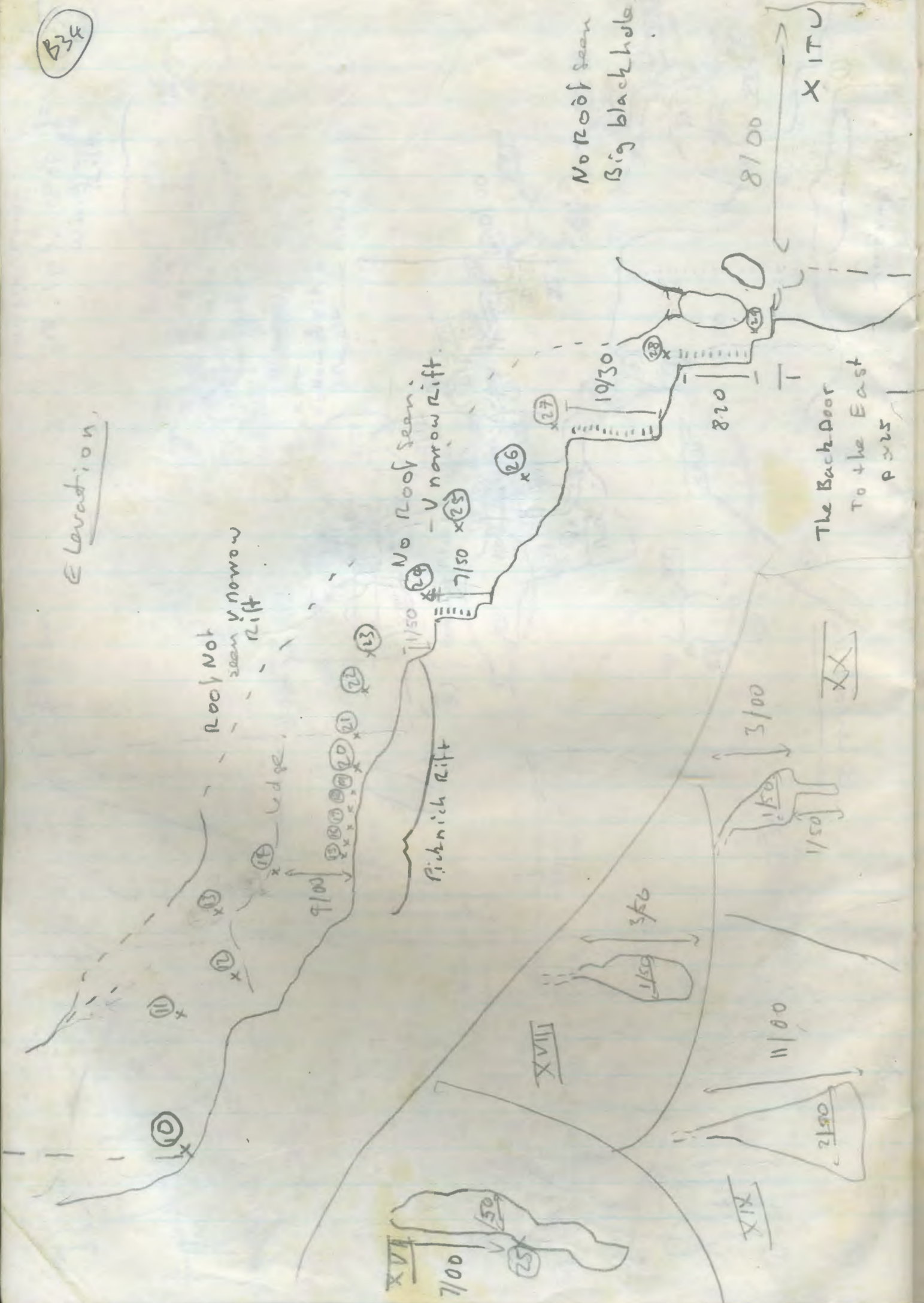
Elevation

Roof Not seen  
- narrow Rift

No Roof seen  
- V narrow Rift

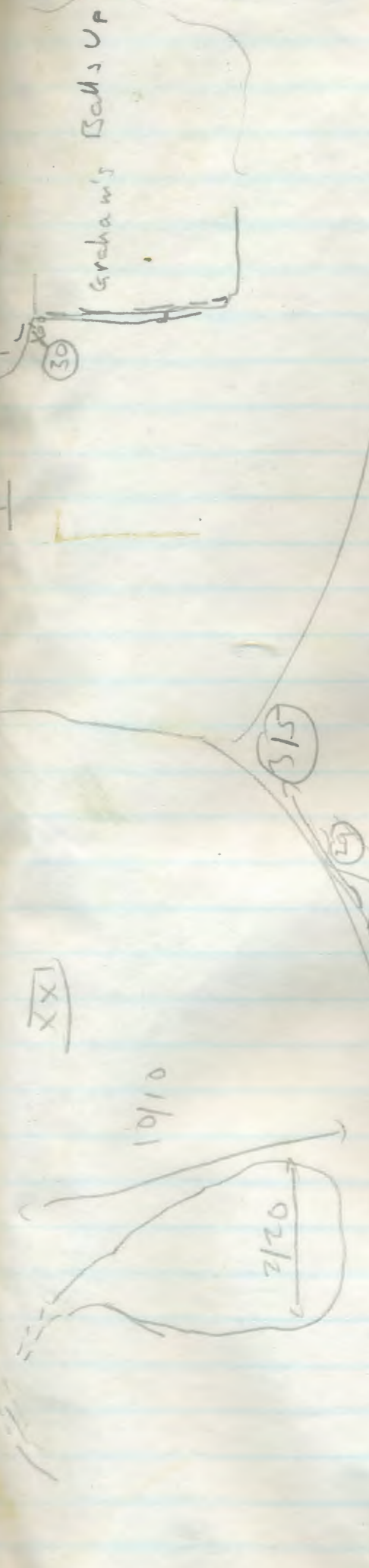
No Roof seen  
Big black hole!

The Back Door  
To the East  
p. 215





Graham's Balls Up



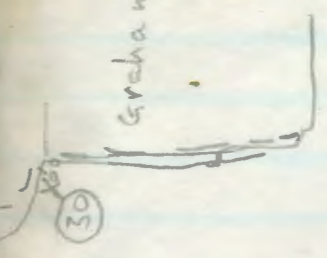
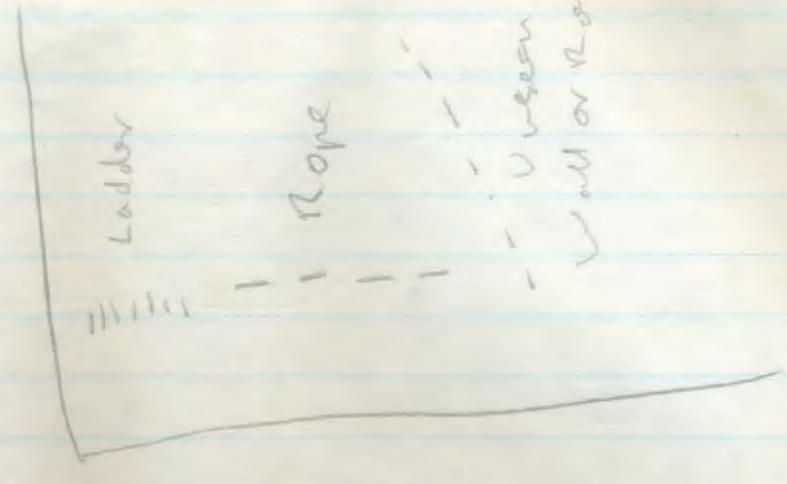
XXII

XIV

Choss +  
boulders

30

Graham's Balls Up



30

315

35