

Sat. 29th July.

Returned from holiday on Yorkshire coast, leading a party of seven boys on an organised Eagle and YHA tour. Arrived Bradford about 3.0 p.m. and departed by taxi for the 1.40 a.m. train from Forster Square.

Sun. 30th July.

2.43 p.m. train from Leeds City to St. Pancras. Arrived about 8.30 a.m. Tube to Paddington. 10.0 train to Oxford. Met others in the den, 26A, Pembroke Street, St. Aldates. Lunch there. Helping with packing at 60, Lake Street, and making cable drums. Continued all evening.

Mon. 31st July.

Continued packing and making cable drums for geophysical work. Got Ann's exam results from Exam Schools. Haircut. Departure from Oxford about ~~XXXX~~ 7.0 p.m. - about an hour behind schedule. Journey to London, stayed the night at Ian's and Mike Austin's homes, myself at Mike's flat. Telephoned home evening, speaking to Graham Poole, who used to live in Twickenham! Bath.

Tues. 1st August.

Departure 8.30 a.m. for Dover, arriving about 12.0. Shopping for solder, and rods for geophysical trolley. Pulleys also. Car ferry from Eastern Dock, after a little trouble getting the duty-free cigarettes, films and fruit drinks (the latter had been shipped in the Queen Mary from America) through the customs. *Compiègne* French boat. Crossing about an hour and a quarter. From Calais journey via Boulogne to the village of Vron, where we camped. Vehicle registrations are 118 MFC and 547 LJO, and I travelled in the 3-tonner, 547 LJO. Were given some cider to drink by the farmer.

Wed. 2nd August.

Journey on the Route National 1 via Montreuil and Abbeville to Rouen. The brakes were giving trouble on 547 LJO, and after stopping outside Rouen near a rubbish dump to repair the brakes, it was also discovered that the ball race on one of the wheels needed changing. This necessitated the purchase of a spare part from Rouen, and since the shops were now closed, we decided to stay the night at the rubbish dump.

Thurs. 3rd August.

Departed from the rubbish dump after nearly 24 hours there, at about 12.0 a.m. Journey on N.154 via Evreux, Nonancourt, Dreux, Chartres, Vendôme and Tours to Montbazou, where we camped near an

explosives factory. The site of the camp was the site of some former houses which were destroyed when the factory blew up! Luckily nothing happened when we were there.

#### Friday 4th August.

The weather has continued very hot. Journey on N.10 (Paris-Bordeaux) via Châtellerauld and Poitiers to Ruffec, where we bought food, and nearly ~~had an~~ caused an accident at the top of a hill by backing the vehicle. At Angoulême had difficulty finding the way onto N.139. At Brantôme bought food and paddled in the river. At Périgueux took the N.89 towards Brive, turning off to Montignac. Camp near Montignac in preparation for our visit to Montignac-Lascaux. Camp in field near farm. Star gazing at night. Saw artificial satellite, and the moons of Venus.

#### Saturday 5th August.

In the morning went to Lascaux, hoping to get into the caves and to get beyond the public section. Found that the letter MJW had was in fact no authorization whatever, and returned to camp, where we spent the afternoon until about 4.0. MJW and others went to Montignac and got permission from Abbe Gloire to visit the caves, and to go beyond the end, conducted tour being by the Abbe, or so we thought. Visited Les Byzies and one of the caves which had some cave paintings in bad condition. In the evening went back to Lascaux, Abbe Gloire did not in fact turn up, and we had to pay the guide a special tip for taking us round the caves after hours. Naturally we thought that we had been done, but the paintings at Lascaux were very well worth seeing nevertheless. Looked for tree-frogs while waiting at Lascaux.

#### Sunday 6th August.

Journey via Bergerac, Marmande, Mont-de-Marsan, Bayonne and Hendaye to the Spanish frontier. At Bayonne we got caught up in the Basque festival week celebrations, including dancing in the streets. Kept a good look out for the Taylor car, but no luck. After the formalities at the French side of the border, the Spanish customs would not release our equipment until the morning, although MJW thought that we had clearance. Accordingly we toured Irun, some eat out in a restaurant, and some, including me, returned to the frontier area, backed the lorries into a parking space, and cooked Spaghetti Milanese. Spent the night there, most people sleeping under the lorries. The customs officers must have thought us the maddest Englishmen they had seen, since we duped them into looking through a telescope at a non-existent satellite, amused them with the communications telephone in 547 LJO, gave one some tea, and got water from their lavatory.

#### Monday 7th August.

The good weather continued, and after the equipment had been released at 10.30, continued via San Sebastian, where we went swimming, Zarauz, where I saw the hotel at which Ann stayed, and

we also went swimming. Met Peter Myers, who was acting as courier for the Under-30s travel club. Surf riding on air bed. As the cooler evening returned, we travelled along the coast road to Deva, and then inland by a mountainous road to Bilbao. The centre of Bilbao was very ill-lit, and the road worsened. Had supper in a cafe there. We eat in two groups, and Martin had found us some dive to eat in. Our meal consisted of fish soup, with lumps of decaying fish, squidlets cooked in their own ink, and iced melon. The best part of it was the last course, and many people said that had the meal been served in camp, they would not have eaten it! Did a night drive as far as the coastal village of Castro Urdiales, where we again slept under the vehicles. Wet night.

### Tuesday 8th August.

Awoke about 10.0 a.m. MJW had an attack of some disease, which involved shock and exposure as well. We discovered him on a hill in the pouring rain quietly crying to himself. We treated him for shock, made him change completely and lie down, then transported him to the village, where we got a doctor to see him. He gave him a prescription of heart stimulant ~~aminophen~~ for the complaint, but would not take anything for his services since MJW was a medic. After Mike had had his first injection of the stimulant, we went to Santander, where MJW decided to stay for a few days, the rest of the expedition going on without him. During our stay in Santander, I visited the archaeological museum with Jim, which had some fine Roman and prehistoric relics, including some of the finest Samian ware I had seen, and copies of cave paintings, as well as artifacts and bones, etc. Journey to Torrelavega, where we had supper in a cafe, and found it necessary to order second helpings of the food. The food was very good, in contrast to that of the night before. Went on past Torrelavega and slept under the vehicles by the roadside, for the third night. Wet all day and night.

### Wednesday 9th August.

Journey via Unquera and one of the worst roads I have seen to Llanes and Ribadesella. The road was part of a one-way system while a new road was being made. From Ribadesella took the road to Cangas de Onis. On the way discovered that we did not have the all-important letter from the Spanish government giving us permission to camp in the National Park and to carry out our programme. In the end John and Martin got changed into smart clothes and went to see the Mayor, who gave us written permission to carry out our work in the National Park. Camp a mile past Cangas near the river, and supper in a restaurant in Cangas. All the local populace seemed to come into the bar to have a good look at us, and at one time the waiter came across to say that some girls wanted a word with us! Most of us had drinks afterwards, and some got drunk, returning rolling to the camp about 1.0 a.m., and then some went fishing. Noisy until about 3.0 a.m. Rather pathetic, disgusting and could have had an adverse effect upon local opinion of the expedition.

Sunday 13th August.

Mike Walker arrived back, apparently well.

Since John had got permission from the mayor of Cangas to use the refugio free of charge, and to store things in the verandah, we spent most of the day resorting the equipment in the verandah. The day was mostly sunny, and we had our first view of the Pena Santa de Enol range, the most memorable time being when the peaks were tinged in red at sunset. So that we could move from the refuge to the verandah without putting boots on (the front of the steps was a morass in wet weather) we built a path of stones which we carried from a nearby gully. We can actually sleep in the dormitories free of charge except when other climbers with permission from the mayor come, when we will have to vacate the dormitories and sleep in the tents. These will be pitched in the vicinity of the refugio, and not at the site which we explored. Since it was Sunday, lots of people arrived in cars for the day, and we had lots of spectators while building the path. Typical of Englishmen, working while others were having their holiday, I'm sure! The generator was working, and we had electric light as well as the Tilleys in the verandah. In the evening we had a campfire in the verandah (fireplace as well) to which some Spanish climbers came.

Monday 14th August.

Awoke to bright sunlight. Cooked breakfast. Afterwards we pitched the tents to dry them out, and I climbed the hill behind the refugio, from which there was a wonderful view of the mountains. In the afternoon I cut off 200 ft from our length of nylon line, and fused the ends to make a lifeline for the 150 ft shaft which one of the shepherds showed us. We also took 200 ft of ladder and a wire belay length to the pot. Ian, Dave, Jim, Tony and Mike Holroyd descended, and I lifelined from the top. While they were below I explored the surrounding countryside for caves, and found one or two possibilities, including a shakehole which might dig. From the reports of the cavers the pot is large and will carry a large flow of water in wet weather. The resurgence is possibly the large resurgence in the valley to the south of the refugio, but this remains to be seen when surveying, and geophysical work have been carried out, and die tests made. This being the first large find during the expedition is rather gratifying. We had a large crowd watching us during both the ascent and descent of the pot. For future occasions a circular lifeline on pulleys is to be used, and much of the vegetation removed from the shaft. Later on some of the boys explored another pot on the hillside above the refugio.

Letters A., Home.

+ John C., MJW.

## Tuesday 15th August

The small vehicle departed for Cangas in the morning, only to find that it was a religious festival and all the shops were closed. Two more maps arrived at the post office, however, and I had a letter from Ann. During the day we explored P2 and P3, two pots discovered on the hillside above the refugio, La Porra de Enol. P3, explored first, had a 25ft pitch, and at the bottom were a large chamber and a small passage, the latter with very fine calcite crystals. P2 has a 60ft pitch and is a fissure cave, consisting of a number of interlinked fissure caverns. I surveyed both to grade 2 standard, and on return to the refugio drew them out on the excellent cartridge paper which the expedition has obtained, with the free indian ink. Bed about 1.0. The weather continued fine, most days being sunlit with varying amounts of cloud.

## Wednesday 16th August.

The morning was very sunny, but later clouds obscured the mountains and it was quite chilly. During the afternoon Dave, Mike Austin, Ken and I made preliminary arrangements for the winch at the P1 (Poza Palomeru) shaft, chopping down a thirty foot tree, and clearing foliage and small trees from the shaft. The hole was then clearly visible. The sun was very hot during the latter part of this work, and very exhausting. The tree after being trimmed, was left to await more manpower. Returned to the refugio for food, then joined Ian in a walk along the road to La Rasa, where there are several deep shakeholes, and then to the bridge over Rio Pomperi. The river is dry above the bridge, but below it there is a resurgence, followed by a deep gorge. Impressive gorges of the Rio Pomperi and Rio el Osu. Discussion evening on finances of the expedition.

## Thursday 17th August.

Sunny weather. In the morning surveyed the position of several caves, then shifted the tree to P1 shaft, using all available manpower. Belayed to rocks with wire belays after moving the tree across the shaft with a block tackle suspended from a tree. 2:1 advantage tackle rigged. Returned to refugio for lunch, then afterwards I sketched the view of Santa Maria de Enol, then joined Jim, Ian and Bill in a swim in Lake Enol. Fairly warm water. Later Jim and I removed the ladder at P1 from its former position and put it near the tackle, then explored for caves. Ken and Tony found three caves near El Diadiellu. Cows chewed strap of compass, and I broke glass of compass by dropping it. In the evening wrote catalogue of caves etc. so far discovered. Letters A., Home. Postcards.

### Friday 18th August.

Today the weather began to break, back to the misty and rainy weather of our arrival. The archaeological party prepared for their departure. I began to make a charging board for the batteries, and then went with the small vehicle and the archaeological party (MJW, Bill, Dave and Martin) to Cangas, calling at the Post Office at Covadonga for mail, of which there was none. At Cangas did some shopping, for postcards, stamps, spindles for the geophysical equipment, and a whetstone, as well as logs. Returned to the mountains by walking, arriving about three hours after I left Cangas, 24Km in three hours! At Covadonga visited the shrine, at the back of the altar of which is a shaft descending to the pool below. Meal waiting for me on my return. Slept in the tent.

### Saturday 19th August.

The poor weather continued. Mike A., Mike H., Jim, Tony and Ian departed about 11.30 for the descent of Pl, Ken helping them in their descent. During the day I completed the arrangements for the charging board, and learnt how to open some of the batteries for charging. Made an electromagnet to try to open the CEAG cells, but no great success. John repaired the generator, and Ken and I cleared up and resorted equipment. Helped to take the spring temperature, flow and water sample. At 6.0 departed to help with the ascent of Pl, taking hot coffee with me. Later helped with the cooking.

### Sunday 20th August.

A day with sun, bright periods and also mist. In the early morning made arrangements for records of the resurgence at Vega de la Cueva. Used Dexion strip and polythene to make a leat to divert a part of the water to a convenient area for measurement in a bucket. The usual trippers arrived for the day. Some drunken Spaniards apparently arrived in the early hours of the morning, nearly running into the tent in their car. I slept through it, but John was up until late seeing that they did no damage. For this reason, John was tired, and I did not feel too well, so we did not go down Pl as originally planned. In the afternoon played baseball with a ball made out of a stone wrapped in polythene sheeting and sewn into an old sock. Also continued experimentation with the generator and charging batteries. Constructed part of the geophysical backpack. Slept in the tent again.

Monday 21st August.

A beautiful day - blazing sunshine, and hardly a cloud in the sky. Everybody decide to go into the mountains, some to look for caves, and others to climb Santa Maria de Enol. The latter, Mike H. and Tony, brought back some snow and a snake. Ken climbed up to a ridge 7000 ft high, after showing me some of his caves already discovered. I spent the day with Mike A., in Las Reblagas and near Lago de la Ercina. Got water samples of Las Reblagas resurgence and La Meona sink. Climbed up to the ridge of La Joyasa, then down Vega el Texu to Ercina. Discovered the possible connection of the Ercina sink and Las Reblagas rising. Also plotted sinks and risings. In the early evening did pH determinations of the water samples, swam in the lake, and made tanned cotton. Letters Home, Ann.

Tuesday 22nd August.

Another sunny day, but with cloud later. Cook duty. In the morning prepared for Rhodamine test, drying tanned cotton, and making concentrated Rhodamine solution. Inserted the rhodamine in the sink S4 at 1405, but the water at the rising B6 was not coloured by 1500. Returned to refuge to prepare supper, of stewed rabbits (killed and gutted by Ian, John and Mike) potatoes, beans and fruit. Tanned cotton hanks for the test placed at B6 and at the rising of the Vega de la Cueva. Ian and John went to Cangas. Letter from home., including some from the boys which I took on the YHA tour. Jim potholing by himself.

Wednesday 23rd August.

The morning was sunny, and two Spaniards were taken down P2 and P3 by some of us. In the afternoon Jim, Mike A., Mike H., Ken and I went down P1, Jim and I surveying and the others photographing. The ascent is easy with the winch arrangement. After the ascent went to Las Reblagas with John and retrieved the tanned cotton hank left at the rising. +ve test. Hank sequestered in EDTA solution to remove iron discolouration.

Thursday 24th August.

Another scorching day. Rising at Vega de la Cueva still -ve. Started control experiment with Rhodamine solution. Finished geophysical trolley. In morning plotted position of R6-S5. In afternoon visited mines in Vega de Comeya and did some geologizing (mainly haematite). Also plotted another lot of caves, including a 'Malham Cove' type rising in the Vega de Comeya. Large natural arch. Completely enclosed valley. Mine has cable railways, mines cinnabar, haematite, and manganese oxide from wasteheaps of English mine. From 6.0 to 8.0 went around the hill and found some more cages. Stargazing.

Letters home, Ann.

Friday 25th August.

In the morning packed up the van for the weekend at Cangas - our mid-expedition holiday at the supposed fiesta in the town. There turned out to be no fiesta at all, but the rest doing nothing at all and swimming was welcome. Everybody except Mike A. and I went on the van to Cangas, but we walked there, doing our various tasks on the way. Before I departed I took the spring readings and the met observations. Then I walked round the lake, finding Mike still at the side of it supposedly working taking photographs of Maria, etc. I went down into the Vega de Comeya and put a hank in Malham Cove, then put rhodamine in the main sink. Then I climbed the pass to the stream Santa Marina, finding it dry as far as I descended, and then walked along the flank of Canto el Utre to the Rio Arganeo. This has a surface stream, but not large enough to account for the large sink in Comeya. Since the Rio el Osu tributary is dry also, we have thus failed so far to find the rising. This is not surprising because of the extreme dryness of the weather - almost an unprecedented heatwave apparently. After the abortive expedition in search of risings and after climbing a very steep hillside with five foot high gorse plants which nearly ripped me to shreds, I met Mike at the junction of the Comeya and Lagos roads. We then went down to Covadonga, where we visited the basilica, then walked to Cangas, failing to get a lift at all. I was ready for the swim which I had on arrival at the campsite. Later I put on my best clothes for the meal in Cangas. There was the usual drunken brawls on our return - rather pathetic. Two letters from Ann and one from home.

Saturday 26th August.

A very lazy day spent mostly at the campsite, swimming and lying in the sun reading. I read some science fiction. In the evening we watched a bullfight on television in the Cafe Espanol. At all the exciting bits the set vertical hold went wrong and the waiter ran up his little stepladder to put it right. On our return found one member extra for the expedition - Jem. He had arrived at Covadonga by bus, asked for the expedition, and finally been driven in the same bus to the campsite near Cangas - it just shows how the people around here keep track of us!

Sunday 27th August.

In the morning run into Cangas in the lorry for the post. Then went to Covadonga where I attended mass at the shrine, while four others attended the service in the basilica. Then we went up the mountain, doing some wooding on the way. We also brought some wine and Coca-Cola supplies for Ramos. On our return I put up the tent, then took my spring reading. Later I went for a swim in the lake, and did a little reading of my Spanish grammar while sunbathing. Cook duty for supper, and some English climbers came for a drink of tea with us.



### Monday 28th August.

First day with an organized programme. The survey party down Pl was John, Jim and Jem. The photographers were Mike A. and Ken. The geophysical party was myself, Ian, Mike H., and Tony. Ray and Bushy did water tracing. The survey was extended to the second lake, now dry. Some skiving was done by the lake by the rest of the geophysical party, with the result that I had to do the plane table survey of the first site, across the head of the Vega de la Cueva, by myself. The Hidden Valley survey was begun and the gear left in a peasants hut. Unfortunately I missed the party in two places and as a result did not take part in the first part of this second survey. Ray and Bushy explored the caves in the Vega de la Cueva, and got me a water sample from R9 (Malham Cove). I inserted a cotton hank in the Vega de la Cueva rising, and put rhodamine in the Hidden Valley sink.

### Tuesday 29th August.

A very warm dry wind blew very strongly during the night, buffeting the tent very strongly. The heat was stifling, the minimum temperature being 69°F, and as a result not many people got a good night's sleep. However, we got up early in general and started the day early. Jim, Ray and Bushy went down Pl to survey, but lost the clinometer in a pool, doing no survey work. Mike A. and Ken did photography in some small caves (overalls). Mike H., Tony, Ian, Jem and myself did geophysical work and plane-tabling in the Hidden Valley, doing the step traverse along the valley, and a depth survey across the valley. The work was done in the morning and evening, the heat of the day being spent by the lake, swimming and reading. I learnt some Spanish and Marie came to teach us the language. Letters home, Ann.

### Wednesday 30th August.

The warm spell seemed to have finished in the morning, since there was cloud and mist. I went down Pl on the survey party with Mike H., Tony and Jim; Jim only went down to find the clinometer which he dropped in a pool, and later was lifelined to the surface. The geophysical party was Ian, Ken, Ray and Bushy, and Mike A. John went to the Vega de Comeya and Jem charged batteries and serviced the generator. We did 640 ft survey to the 'Grand Piano', not a bad day's work. The geophysical party had difficulty in detecting a cave below the pass between Lago de la Ercina and the Hidden Valley, since they were unable to go deep enough, being restricted by the available space. Bed early, since I was tired after the potholing.

#### Thursday 31st August.

The survey party at P1 was Ian, Jem and Tony, and after some slight mishaps they surveyed to the end of the main passage. Low with pools. Came up about three. Mike Austin and I, being on cook duty, did some surface work. Began P1 surface survey, marking with green paint. Tending down towards Vega de Comeya. Very hot day. John and Ken departed for their trip into the mountains, and I began to take the met, readings until John's return.

#### Friday 1st September.

The good weather began to break. Several other parties prepared for their departure for the mountains - Ian and Mike A., Jem and Tony, leaving Jim, Mike H., and myself to hold the fort with Ray and Bushy. During the day there was thunder. We walked to P9, a pothole discovered by Jim between the valleys of La Meona and Riega la Vega el Texu. Large open potholes with natural bridge. Surveyed the main passage and explored a side passage which had a strong draught. Nothing very extensive.

#### Saturday 2nd September.

Overcast in the morning. The mountains ~~looked~~ looked quite forbidding in the cloud. Bushy went down to Covadonga, returning with letters for me from Ann and home. First of all we went to explore and survey P8, a pothole I discovered near the road on the crest above Lake Enol, near Fuente Seca. Surveyed it also to grade three. About forty feet deep, but blocked at the bottom. Then we climbed the Cerro de Schornin and descended the other side towards the Vega de Comeya. Found several promising entrances, and in particular explored and surveyed the cave discovered by John in a basin-like valley behind the Natural Arch. Found a new part, opening out of a crawl. Near this we found P11, an extensive pothole with several connected open shafts. Very fine formations and rimstone pools. After taking photographs and exploring as far as the tackle allowed, we returned to the surface and walked back via the gorge and around Lake Enol. In the evening Ray and Bushy eat with us, making a very fine stew. Drew out the P9 survey.

#### Sunday 3rd September.

Drizzle all day. After a late rising, made out new form for met. observations, and recorded discoveries. During the day, Ray, Bushy (Dave's overalls), Jim, Mike H., and myself explored P11 further and surveyed it. Good rimstone pools. Steeply descending stream passage which finally narrows. A good day's potholing. As the parties had not returned from the mountains, we made up our own menu, paelæ, followed by cabbage and York ham.

Monday 4th September.

The three walking parties returned from the mountains, Jem and Tony in the morning, Mike and Ian later and John and Ken in the evening. Meanwhile Jim and myself went to the Vega de Comeya and explored the small caves that I discovered there. None of them were extensive. A shepherd told us of another pothole, but we were unable to go and look for it as the mist came down. On the way back explored the level on the side of the valley. Drew survey of P11 in the evening. The parties report extensive potholes in Hoyo de Kas Pozas and at Gran

Tuesday 5th September.

Horcada de Pozas.

Decided to have a day in the mountains and to visit the caves found by John and Ken. Up the track to Vega el Espino and along the Canal de Canraso to Cueva del Viento, a cave with a strong draught. Left my potholing kit there then continued up the mountain, reaching the refuge at Vega Redonda in 65 min from Enol. The zig-zag track wound up the mountain to an ice cave at the junction of tracks below Porru Bolu. Porru Bolu is a large butress of limestone. Near here is Campo de los Pozos, a slightly sloping grass mound with small shakeholes dotted all over it, in a completely enclosed valley. John thinks that this is the result of the slow drying up of a lake. Climbed the pass Horcada las Merinas, then descended along the stony path along the side of the Santa Maria massif. Had lunch at the first snow patch, getting a sample of the snow for pH test, and then descended to the cave again. 150 minutes to my stopping place from Enol. Highest point reached 2030 metres. The mist overtook me just below Campo de los Pozos, and persisted with increasing thickness as I got lower. At C15 found Jim's and Mike's kit, so went into the cave and took a rough survey. Did not get past the boulder choke, however, and did not make contact with them. Left the cave and returned to Enol, taking 40 minutes from the cave. Jim and Mike H. found an extensive system, which we will have to survey. In the evening did the P10 survey. Ray and Bushy departed.

Wednesday 6th September

Expedition down C15 (Cueva del Viento). Jim and I did a grade 2 survey. Jem and Tony explored further, and the two Mikes and Ken photographed the beautiful rimstone pools. A good trip. Drew out the survey on our return.

Thursday 7th September.

Got ready for the trip to the fiesta in Covadonga. Letters home, Ann. Tent down, then went down to Cangas in the lorry, lunching in the Cafe Espanol. We then returned to Covadonga, having bought presents in Cangas, and made camp on a former road course above Covadonga. In the evening watched the religious procession from the Basilica to the shrine through the tunnel blasted out of the rock, which has a calvary half way through. Lots of rockets let off, and we let off one of our signal rockets.

Later in the evening drunk cider at one of the bars, then returned to camp.

#### Friday 8th September.

In the morning, Ian, John, Ken and myself attended mass in the Basilica, after which there was another procession, this time with a band and more fireworks. Mike H., Tony, Jim and Jem went down the Cueva de Orandi, the cave which emerges at the shrine. They found several pitches, first a thirty foot pitch, then a fortyfive foot pitch ending in a fifteen feet deep lake. They then returned for lack of tackle. I went up to the cave, up a very steep winding track, and met them as they came out. Mike A. went butterflying, then joined the others in a trip to Cangas to get food. There were crowds in Covadonga, and in Cangas, it being the equivalent of a Bank Holiday. I watched and photographed some dancing to bagpipes in Cavadonga. The bagpipes have only one drone, and are slightly shriller than Scottish bagpipes. The cavers and I went to a bar in Covadonga and had some cider and food, then waited for the lorry to return, when we went back to camp, packed up and returned to the mountains. Put up the tent in the dark. **Jem - Billy's overalls.**

#### Saturday 9th September.

Survey trip down P1. Jim, Tony, Jem and myself were two survey parties, and Ken and Mike A. did some photography. Jem and I surveyed the main side passage to Candy Cavern, the bypass to Brass Monkey Pool and the bypass to Puente del Hogbog. Jim and Tony, in addition to surveying various side passages, discovered the far series off the first lake of Blue Pool passage. John and Ian went a hike across the hills to the Rio Cares. Mike H. detackled P2. In the evening, in addition to cook duty, had a swim in the lake, and fiddled around with the P1 rough survey. The usual rowdy night, with singing **Spaniards.**  
**Fluorescein in hidden valley sink - 2lb at 1100.**

#### Sunday 10th September.

Final survey trip down P1 - Tony and Jim. I did a surface survey of the main passage and the side passage to Candy Cavern. A suitable place was found for a geophysical survey. Ken and Mike H. went for separate walks on the hills and Mike A. caught butterflies. John and Ian surveyed caves in the Vega de Comeya. The survey in P1 was of the second main passage - far series off Blue Pool Passage. After finishing the side passage surface survey, I helped to detackle P1. We were unable to move the tree we used to support the tackle very much. Cave surveys in the evening.

Monday 11th September.

A misty day with drizzle in the late afternoon. John and Ian went down C15. Jim and Tony surveyed C1, then Tony went for a walk, discovering and surveying C19 and P13. Ken went down to Covadonga for news of the Galicia party, but no luck. The two Mikes and I did a geophysical survey over P1 main passage, then I surveyed the position of the traverse. In the evening I did cave surveys.

Tuesday 12th September.

Sunny in the morning with haze. The day we had intended for packing up for the return journey, but since the Galicia party had not returned we were unable to do this. In the morning and early afternoon I explored the Minas de Bufarrera with Ken and Mike A., who went on later to P11. I did a plan of the mine workings and buildings for future reference. Took several flash photographs in the mine of fungi and of miners working. Wagon train pulled by horse. The Galicia party returned in the afternoon. Pif-Paf bombs. Surveys in the evening, but was unable to finish them, and shall have to do it at home.

Wednesday 13th September.

Packing-up day. Cleaning up and packing of geophysical, survey and potholing equipment. The party which had been exploring the Cueva de Orandi overnight returned in the afternoon. The party was Tony, Jim, Dave and Mike H. (Jim wore Tony's overalls and Tony an exposure suit.) Cook duty. Inspected and removed the sluice from Vega de la Cueva, but the fluorescein had not come through - it seems that the connection from the Hidden Valley is negative. In the morning took the final meteorological readings and then dismantled the station.

Thursday 14th September.

Final packing up, and departure from the mountains about 11 a.m. Took the mountain road to Panes from just before Cangas. On the way down the mountain the big lorry developed brake trouble again, and the little vehicle went to Cangas for brake fluid and to visit the mayor. John and Mike H. walked up the mountain again from Covadonga, meeting us just after we had set off again. The rear offside wheel was removed and the brake shoes burnt off (they had oil on them from a faulty oil seal) The oil seal was repaired by home made equipment. Meanwhile Tony and I looked for potholes in the vicinity without success, then I finished 'The Last of the Wine'. Met the others at Covadonga after meeting and picking up Mike and John. The road to Panes goes through the impressive gorge of the Rio Cares. At Unquera some shopping was done - I bought a pot. Camped for the night at a layby near St Vicente de la Barquera. Slept under the stars, and got up at 5.45. The view of St Vicente in the dawn was beautiful.

Friday 15th September.

Continued the run through Spain, setting off very early, and made good time. Stop for shopping at a small village, where I bought potatoes (Laredo) and then at Castro Urdiales I bought melons and onions. Stop for lunch outside Bilbao. Rest in the shade outside Bilbao, and then the little lorry went ahead, so far that we did not catch up with it until near Zumaya. We had a drink at the village of Durango, on the steep road to Eibar. The weather was sweltering, and we stopped for a swim at Deva, where I also posted letters home and to Ann. When we met the others, it was decided to have a meal in a cafe in Zarauz. The lorries departed from Zarauz early in the morning, about 3 a.m.

Saturday 16th September.

Spent the night in an oak wood by the roadside outside Zarauz, and then had a lazy day reading, having moved the lorries into a small quarry out of sight of the road. Walk over the hills to the sea, where a large estuary enters it. Return by tracks to the lorries. Polythene catchment sheet used to catch small trickle at a spring, and the accumulated water was then siphoned into the drums.

Sunday 17th September, Monday 18th September.

Remained at Zarauz until 6 p.m., when we started the non-stop drive through France. Drove through San Sebastian, and arrived at the frontier about 8.30. No trouble whatever with the customs, and we spoke to the customs officer to whom we gave tea on a former occasion, who shook hands with us. The driving was in relays, and I helped to co-drive in shifts, two drivers sleeping in the back of the big lorry and two others driving. By dawn we were near Angoulême, where there was a stop to attend to the tappets of the little lorry. I slept for an hour meanwhile. In Angoulême we went to the bank, where money was changed and petrol coupons bought, and also Ken and I bought food in the market. The day was very hot indeed, and we stopped in the early evening ~~near~~ in the centre of Montbazon, where we had a drink, then went on to Tours. Just outside Tours we were invited for a drink to a chateau, where the owner was very hospitable, his daughters and small son served the drinks, and then he insisted on showing us his Citroen 2 CV, and putting it through its paces, I think to the slight disapproval of his wife. Continued the night drive, stopping outside Tours for a meal. There was a further stop in the night at Chartres to attend to the tappets, of which I was oblivious, sleeping in the back of the little lorry. I took over the navigation outside Dreux, and continued to Rouen. By this time the little lorry was pulling very sluggishly indeed, and took all the time in the world to climb hills, even slight risés. In one place it had to be towed by the big lorry. We had coffee and croissons in a Cafe outside Rouen, then a further stop for some of our own coffee by the roadside, while the engine was attended to. Three plug leads were discovered disconnected.

~~XXXXXX~~ 19th Tuesday  
~~XXXXXXXXXX~~ September.

Dawn just before Rouen. Passed our former home at the rubbish dump. Continued the journey to Boulogne, where the little lorry was put in the General Motors garage, and we went out to camp on the cliffs overlooking the harbour, near a gun emplacement. During the whole return journey no tents were used.

Wednesday 20th  
~~XXXXXXXXXX~~ September.

Awoke to stormy skies, and after our first good night's sleep of the journey, got up about 11.30. Went into Boulogne and spent the day there, the repair of the little lorry continuing in the garage. Very wet day. Left Boulogne after dark, and drove to near Calais, where we camped near the sand dunes about a mile outside the town. Many fortifications visible, left over from the war.

Thursday 21st September.

Got up at 5.45, and cooked breakfast. Repacked all the lorries, re-arranging the equipment for the customs. Drove into Calais and had a coffee in a cafe before the boat sailed. The crossing was smooth, and I had a coffee on board to use up my French coins. I also changed my French notes and bought some cigars. The customs check at Dover was surprisingly easy, then we went to a pub in the centre to toast the successful completion of the expedition, Drove to Clapham Common, where there was certain re-arrangement of the kit, and Jim, Martin and Billy departed. The little lorry then went to Oxford direct. The big lorry went to Twickenham for the night. Ken, Tony, Dave and Mike ~~N~~ came to Oxford, where after unloading we slept in the den. We had fish and chips on the way - it's nice to be back in England.

Friday 22nd September.

Repacking of kit. Tour of the centre, going to a bank to change travellers cheques, and went for a haircut.