



# **OSTON 2004**

**Oxford University Cave Club  
expedition to the Picos de  
Europa**

**6th July to 30th August**

# With thanks to...

The Gordon Foundation (<http://www.gordon.foundation.btinternet.co.uk>)  
The Ghar Parau Foundation (<http://www.bcra.org.uk/gpf>)  
The Royal Geographical Society (<http://www.rgs.org>)  
Oxford University (<http://www.ox.ac.uk>)  
Floorplans North (<http://www.floorplansnorth.co.uk>)  
Lyon Caving Equipment (<http://www.lyon.co.uk>)  
Dragon Caving Gear (<http://www.dragon-speleo.co.uk>)  
Mornflake Porridge Oats

Steve Roberts (home agent)  
Juan-Jose Gonzales Suarez (field agent)

Gavin Lowe  
Dave Legg  
The expedition committee

& the expedition members!

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# Introduction

On the 6<sup>th</sup> of July this year, Oxford University Cave Club left the UK for the next episode in the story of the caves around Ario in the Picos de Europa, and area that has been being explored by cavers from our university since 1961. Many entrances had been logged over the years, and quite a few of them had been developed into deep caves, in some cases over a kilometre in length. But many had been left unexplored or partially explored, and the hills had many more yet to be discovered. This year, our task would be to look at these unpushed entrances, and to search for more, particularly in the direction of Oston and the Ceres Gorge, the area covering the gap between Ario (where we have entrances to deep caves) and Culiembro (where many of their streamways have been shown to resurge). This area had not been looked at before, and could help us join systems together to produce caves of over 1400m in depth!

On the 2003 expedition, one particularly promising hole was discovered on the slopes down from the far side of the valley of the orange rock – Pozu Chicago (17-13), named for the chirpy family song sung frequently throughout the initial exploration of the cave. A few pitches had been dropped, including one huge one (~70m), and at the limit of exploration was another big black open space leading downwards. This would be another important focus for our expedition.

**Paul Garver**

## Expedition Members

<b>Gareth</b>	<i>“all English people sound posh to me”</i>	<b>Phillips</b> (treasurer)
<b>Chris</b>		<b>Sinadinos</b> (gear)
<b>Mike</b>	<i>“I don't penetrate old wrecks”</i>	<b>Hopley</b>
<b>Keith</b>	<i>“life is about being in the middle of nowhere”</i>	<b>Hyams</b>
<b>Arry</b>	<i>“I think it's going to be dark tonight”</i>	<b>Fraser</b>
<b>Chris</b>		<b>Fernau</b>
<b>Matt</b>		<b>Robinson</b>
<b>Rosa</b>	<i>“we need more lizards”</i>	<b>Clements</b>
<b>Matt</b>		<b>Robinson</b>
<b>Paul</b>	<i>“absentee”</i>	<b>Garver</b> (leader)

# Diary

Date	People	Place	ETB	Callout
15/Jul	Al	Areas 4 and 13	07:00 PM	11:00 PM
16/Jul	Gareth + Rosa	Chicago	08:00 PM	12:00 AM
16/Jul	Al	Areas 4 and 13	07:00 PM	11:00 PM
18/Jul	Al	Areas 5 and 10	07:00 PM	11:00 PM
21/Jul	Keith + Arry	Area 12	06:00 PM	10:00 PM
22/Jul	Keith + Arry	Area 11	08:00 PM	10:00 PM
23/Jul	Keith + Arry	Area 12	07:00 PM	10:00 PM
24/Jul	Everyone!	Area 11		
26/Jul	Mike + Rosa	Chicago (surveying)	12:00 AM	07:00 AM
27/Jul	Keith	Trea path/Huerto Ray/Jultayu	07:00 PM	09:00 PM
29/Jul	Keith + Rosa	Chicago (pushing)	09:00 PM	12:00 AM
30/Jul	Mike, Matt + Gareth	Area 10	07:00 PM	11:00 PM
30/Jul	Keith + Rosa	Chicago – Disposable Belays	09:00 PM	07:00 AM
31/Jul	Gareth + Matt	Chicago	10:00 PM	07:00 AM
03/Aug	Mike and Rosa	Chicago – Disposable Belays	11:00 PM	07:00 AM
07/Aug	Chris F + Rosa	Chicago – WW survey	11:00 PM	07:00 AM
09/Aug	Chris F + Rosa	Areas 8 and D	07:00 PM	11:00 PM
12/Aug	Gareth + Chris S	Chicago	08:00 PM	07:00 AM
13/Aug	Gareth + Rosa	Chicago – Tacklesack Ledge	08:00 PM	07:00 AM
14/Aug	Gareth + Chris S	Chicago	09:00 PM	07:00 AM
16/Aug	Gareth + Chris S	Chicago derig	09:00 PM	07:00 AM
18/Aug	Chris S + Rosa	Chicago derig	11:00 PM	07:00 AM

# Insomnia

It's 3:30 in the morning.  
I need to be up at 6:30.  
I've had a very strange night.

I moved out of the tent tonight to escape the gurgling drone of Matt's emphysemic snoring. It was audible a long distance from the tent – I was practically on the Trea path before it relented.

- Thank God for Matt's snoring -

It was a mild, clear night; I settled down to doze under the light of a lambent full moon.

- Thank God for the full moon -

The first time I awoke, I observed a cow and calf investigate the water bottles outside our kitchen. "Perhaps," I thought, "we should move those inside too. They are being licked a lot." But the water bottles remained sealed and intact; I returned to sleep unconcerned.

The second time I awoke was different. A cow was near the kitchen again – I could tell by the sound of its bell. "I suppose I should check what it's doing." I squinted into the darkness.

Surely not.  
I must be mistaken.  
Oh bugger, not again.

The cow had pushed our daren drum barrier out of the way and was standing in the kitchen. I had only seconds to spare: time and turd wait for no man. I could already hear the gluttonous slurping as I approached – that must be the curry – which presaged another rancid defilement of our kitchen.

I reached the kitchen. But what now? I risked quite serious injury if I went inside to shepherd the invader out: in its panic to escape, I might be kicked or impaled on those not-quite-blunt-enough-for-comfort horns.

A rock.  
A nice hefty one with sharp bits.  
I've been wanting to do this for days.  
Pity I didn't have my dive knife instead.

Take aim at the cow's backside.  
Good arm swing; rotate the shoulders and...

THROW!

\* \* \* \* \*

The effect was spectacular. The cow performed the bovine equivalent of a 65-point turn and bolted out of the kitchen. I jumped up onto the rocks as it sped past.

Now to assess the damage.

It is said that quick action saves lives. This is true, but what is often omitted is that quick action also saves lentils. In the short period that it had spent inside the kitchen, the cow had sprayed wine everywhere and knocked over the bin; there was little other damage. To be sure, the cocoa would have to be thrown out as well, but it was nearly empty anyway.

I sighed the sigh of a weary caver whose kitchen has just been attacked by cows for the second time in four nights. It's a distinctive and rarely heard sound, but no-one was there to appreciate it. I wanted comfort food. The chocolate would be needed for tomorrow's caving, but there were some sultanas that would be a (poor) substitute.

The sultanas tasted of petrol.

Petrol?

Yes, petrol.

It's been a bad night.

The walls are covered in cheap red wine, and the sultanas taste of petrol.

I'm going to have a pizza in Cangas tomorrow. Hell, I might even have two.

**Mike Hopley**

## Pozu Chicago Description

The cave starts out as a rift, and the entrance is a vertical slot at the back of the indentation in slope/cliff. It's fairly narrow, but not tight. The first pitch is immediately down the entrance rift and was rigged off a bolt with a large chock-stone back up. Two single bolt rebelay then follow and a ledge is reached. Back towards the entrance a short pitch leads to a boulder filled area with no way on. The other side of the ledge is the second pitch, Adrenalin (26m), rigged off a bolt and backed up by the previous pitch. This descends via a single bolt rebelay to a large boulder pile.

At the edge of this is Don't Stop! pitch, which was rigged with a bolted y-hang and backed up off a large boulder. Half way down this 70m pitch is a single bolt rebelay. At the bottom a climb up to the left (facing away from pitch) leads in to a parallel shaft with nothing at the bottom. To the right is a short climb down to a rift. **CAUTION: there are several loose rocks at the head of Don't Stop! Pitch.**

Climbing down to the bottom of this rift leads to a small stream-way crawl which quickly becomes

impassable. The way on is reached by an awkward traverse along the rift at a mid level until a bolt signals a short climb down followed shortly by a pitch of approximately 30-40m. The chamber at the bottom of this pitch contains a narrow unexplored unpromising rift off to the left and a slippery climb up a slope to the bottom of Disposable Belays (see below).

Returning to Don't Stop! pitch, a number of windows are visible. Swinging into one about 5m below the rebelay leads to the fossil Wild West passage. The passage begins with a rift with a calcite and boulder floor. Soon a traverse past a large column is reached. Beneath, the passage opens out but was left undescended as it was assumed that it would drop into known cave. Continuing past this leads to another traverse, lined off boulders. A second lined traverse past an impressive column leads to the top of Disposable Belays pitch. To the left is a continuation of the passage leads down via a calcite slope to the top of a climb.

About 35m down the pitch is a large ledge (Tacklesack Ledge), from which a small passage which quickly turns into an unpromising tight crawl. Following a traverse opposite this ledge leads to a pitch.

Continuing to the bottom of disposable belays via a bolt rebelay on the right hand wall dividing to passages leads to a junction in a rift with three ways on. Straight on leads to the bottom of the pitch from Tacklesack Ledge. A maze of passages ensues, but all soon become near impassable. A dedicated effort might get through one or two of the improbable squeezes which have limited the current exploration, but nothing looks particularly promising. The most likely places to extend Chicago from are the windows on Don't Stop! and Disposable Belays.

**Rift Route**

<b>Pitch</b>	<b>Rope</b>	<b>Belays</b>
Entrance pitch Adrenalin(26m) Don't stop pitch(71m)	140m	Bolt, Chock-stone backup, two bolt rebelays (-4m,-8m) Bolt from ledge, bolt rebelay next to ledge on 2 <sup>nd</sup> wall, -10m Bolted Y-hang on left wall, with boulder back up, bolt rebelay (-35m)
Rift pitch	40m	Natural Y-hang, with natural backup lead to main hang a bolted Y-hang

**Main Route**

<b>Pitch</b>	<b>Rope</b>	<b>Belays</b>
Entrance Pitch Adrenalin(26m) Don't stop pitch(45m)}	125m	Bolt, Chock-stone backup, bolt rebelays (-4m) *maybe two* Bolt from ledge, bolt rebelay next to ledge on 2 <sup>nd</sup> wall, -10m Bolted Y-hang on left wall, with boulder back up, bolt rebelay (-35m), tied off to natural for pendule into wild west passage
Traverse		Rock at start of 1 <sup>st</sup> traverse to rock between 1 <sup>st</sup> and 2 <sup>nd</sup> traverse to thread left of Disposable belays pitch head.
Disposable Belays(35m)	50m	Y hang from thread and bolt, backed up by traverse, deviation from thread (-10m), rebelay 10m from bottom.
5 <sup>th</sup> Pitch (5m)		Single bolt, backed up from last pitch.
6 <sup>th</sup> Pitch (30m)	35m	Chock-stone backed up by spike, needs improving.
7 <sup>th</sup> Pitch (5m)	15m	Large boulder, followed by bolt rebelay at end of climable part





*Rosa considers some alternative methods of transporting gear up the hill.*

# Shaftbashing

Shaftbashing was the primary goal of this expedition. As it happened, the exploration of Pozu Chicago managed to become quite a focus, but there was nevertheless a lot of surface work going on. In this section of the report I will not list all the new holes discovered and old holes logged on GPS – the complete list of known OUCC caves in this area will be updated in the OUCC Shaftbashing Guide (currently available at <http://users.comlab.ox.ac.uk/gavin.lowe/Caving/Spain/total.pdf>) – but I will say a bit about a few of the more interesting discoveries.

**21/10**                      **UTM 0344922 4788446**

“La Cueva de la Mariposa” - the entrance to downstream 2/7?!

Near the end of the E-T ridge, following the line of 2/7 but beyond Huerta del Rey/choke Egbert, a rift in the ridge reveals a hole which can be entered. Progress is halted 2m in by a scary boulder choke, but a large rift cave is visible beyond and it draughts well. A fair digging effort is required. Possible other entrance: a hole in the cliff just beyond (following the line of the rift), a very dramatic abseil above nothingness.

**38/11**                      **UTM 0343452 4789869**

At the head of small valley 50m south of the path with a 2m high small cliff above is a very strongly draughting grassy hole. You can see 3m down through squeezable boulders. A possible alternative entrance is in the second of two shakeholes about 5m behind the grassy hole.

**24/13**                      **UTM 345090 4789633**

A 10-15m shaft in shakehole just uphill and to the north of 23/13, with no bottom visible. Inhabited by a pair of nesting birds (2004).

**27/13**                      **UTM 345078 4789619**

A strongly draughting choke in a rift in the hillside overlooking La Texa. Rocks dropped through holes in the choke rattle for several seconds, and it is easily diggable; would probably take less than half an hour.

# The Technological Revolution

Twenty-five years of exploration and surveying by OUCC in the high Picos has produced an extremely detailed set of underground survey lines. These have been compressed into one remarkable 3d model of the inside of the mountains. As well as the poignancy of this tangible product of tens of thousands of man-hours of physical exertion, it is an extremely useful guide to prospecting for new caves.

Knowing that a cave winds its way close to the surface in a certain place makes it all the more exciting to search there for another way in, promising areas can be identified where not all the water is accounted for, and this approach offers the best hopes for bypassing unexpected ends to going caves. To this end, I experimented this year with taking a computer, containing these maps and models, to our base camp at Ario.

Survex, OUCC's cave software of choice, needs only a very simple machine. Even a cheap computer these days has a lot of power and durability is a much more important concern. The Picos are abrasive on all gear, and in the worst of the storms keeping a computer dry is easier said than done. However, it's by no means impossible to keep one going, and ours survived unscathed: indeed, I'm typing on it right now.

The power came from a battery supplied by a reasonably large solar panel: probably, in retrospect, larger than necessary. The Picos sun is very strong, and modern solar panels can charge even in the clag, so a panel as small as A4 or A3 size would be able to power a laptop in intermittent use. Of course, having a 12V battery at Ario presents various other opportunities, of which charging mobile phones was the most useful. The prospect of everyone using solar-charged caving lights is appealing, but one for the future: as things stand, rechargeables aren't practical enough for serious caving.

On this expedition, the laptop was more of a novelty than a serious tool: it provided interest and entertainment, but overall the expedition was on too small a scale to make the best use of it. A larger expedition, with more caves surveyed, would be able to benefit much more. Various lessons have been learnt, and next year will hopefully be able to make better use of the technology.

**Al Wilson**

## Medical Officer's Report

### The Risks

Caving is a very safe activity when conducted carefully. Expedition caving, however, is more dangerous than the usual club caving in Britain. The main difference is that expedition cavers are more remote from immediate medical assistance; the caves can also be deeper and more difficult than a standard weekend trip. The camp at Ario is only a two hour walk from the car park at Los Lagos, from

where the hospital in Arriondas may easily be reached within an hour's drive. But that does not imply that medical assistance is within three hour's reach. In terms of the actual time taken for outside help to reach a caving casualty, we are more remote than we appear – hence the need for an increased degree of self-reliance in urgent situations. It is also helpful to be able to treat minor injuries and illness without resorting to a time-consuming trip to the doctor!

## **Preparation**

All expeditions must prepare adequately in order to protect the health and safety of their members. Preparation for this year's expedition was much the same as in previous years. All members received a refresher basic first-aid course of six hours duration; two members (including myself) received more advanced training from the company Wilderness Medical Training, in association with the Royal Geographical Society. This training covers the full range of likely injuries and illnesses that may be encountered on expedition, and teaches how to treat these up to the point of evacuation.

The basic first-aid training was provided by Dr. Tariq Qureshi of O.U. First-Aid Unit. Organising these sessions was surprisingly difficult; Dr. Qureshi is considering beginning the process earlier next year, so that training takes place in Hilary term instead of Trinity. It is hoped that earlier preparation will allow training to be completed before the pressure of exams becomes too severe.

A useful rescue practice was held in the Mendips. We practised casualty evaluation and treatment for a mock accident, and used hauling systems to move the "casualty" part of the way out of the cave on a stretcher.

The medical equipment remained largely unchanged since last year, with restocking as necessary. Personal first-aid kits, which every caver carries underground, were much the same as before. I made a complete inventory of the medical kits; a few items needed to be removed or replaced since they had passed their expiry dates. This check should be made every year before expedition. The dates on a few of the items suggested that

I made slight changes to the organisation of the medical kits, which was already well thought-out. Medium and strong painkillers were moved from the "open access" wound care kit to the "restricted" infections kit, to discourage casual or covert use. I created two new kits: rescue 2 and the underground IV kit. Rescue 2 is a smaller version of rescue 1, which was previously the first medical kit to take down a cave in the event of a rescue. I suggest that rescue 2 be used in preference to rescue 1, except when the cave is known not to be tight. In a tight cave, the extra bulk of a larger kit may slow the rescuer. Rescue 2 can be fitted inside a prussic bag. The underground IV kit is intended to allow intravenous fluid therapy to be started rapidly in the case of severe shock – a potentially life-saving measure. In addition to one litre of fluids, it contains two giving sets pre-packed with all the equipment needed to start treatment. One set has a large cannula; one set has a small cannula. I recommend that the small cannula is set up first; once therapy has started, the more difficult large-bore cannulation can be attempted to give faster fluid replacement. Extra equipment remains in the injections kit at camp.

I wrote a new set of first-aid guidelines for expedition caving, which amends the first-aid information contained in the rescue guide. The rescue guide remains our main reference document for cave rescue, but some of its first-aid advice is not appropriate to expedition caving. The new guidelines should take precedence.

## **Incidents**

Ironically, most of the minor incidents involved me – minor burns, generic gastro-intestinal infection and falling rocks in the kitchen. Other complaints included small cuts, foot pains, (probably overuse) and mild sunburn. All were easily resolved.

The only incident of importance was a major dislocation of the knee. Astonishingly, this happened inside our tent. I was not present at the time, but found out the next morning. Unfortunately this injury meant an end to the casualty's expedition. Since the injury was stable and the casualty secure, it was easy to deal with; I had the luxury of consulting my books without urgency. With the assistance of our other WMT-trained member, I splinted the casualty's leg. I also gave some ibuprofen to reduce the swelling. He was unable to walk. Following a call to the emergency services for advice, a helicopter was sent to evacuate him. I was not allowed in the helicopter, nor could they tell me where they were going; however, I was able to pass my notes to them.

There was some confusion following a communication breakdown between the casualty and his parents, but this was resolved – although it did involve me acting as detective for a day in Arriondas! The casualty returned home safely and is expected to make a full recovery, provided that he rests sensibly.

## **Recommendations**

OUCG expeditions are safe and well-prepared for medical emergencies. However, there is always room for improvement:

- The medical kits should be checked every year for out of date items. It is not acceptable to administer old drugs.
- More rescue practices would be useful, as would a special gym practice for removing an unconscious casualty from a rope.
- First-aid training should be started earlier, to make organisation less difficult and ensure attendance.
- The rescue guide should be updated so that it does not contradict the new expedition first-aid guidelines.
- The second page of the new first-aid guidelines document contains a flow-diagram to help decision-making in a crisis. Ideally, small laminated copies of this diagram would be distributed to the personal first-aid kits (this was something I wanted to do, but ran out of time).

**Mike Hopley**

# Accounts

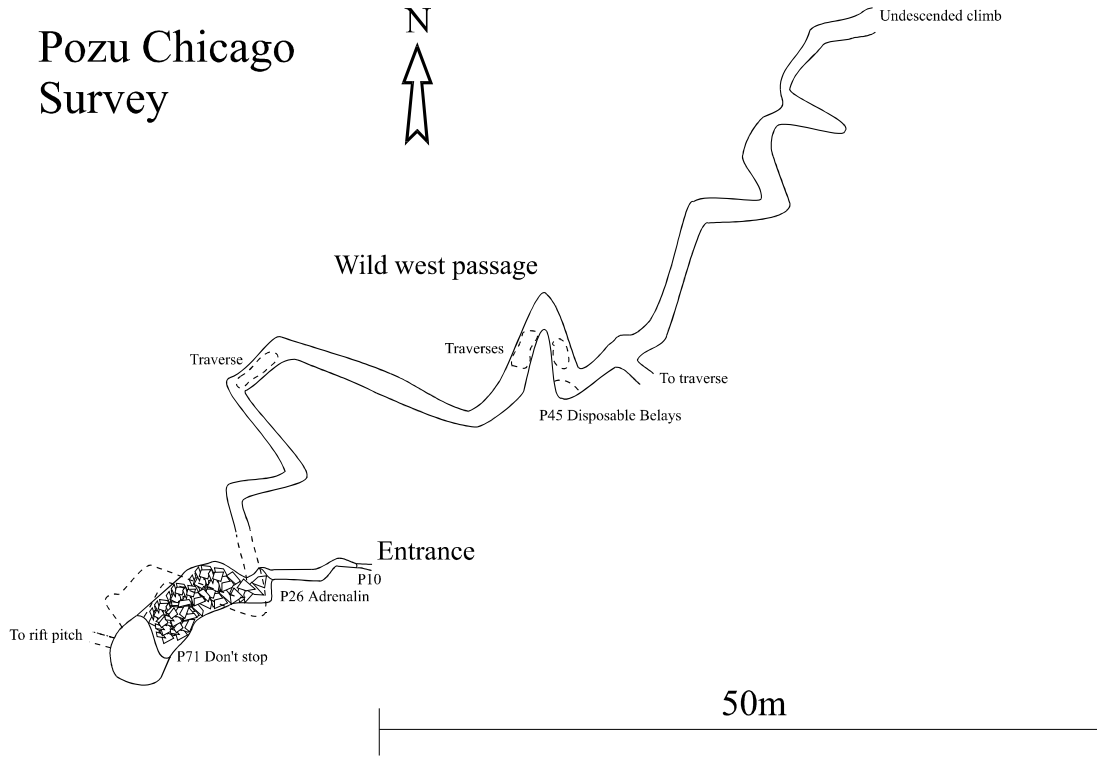
## Income:

<b>Grants:</b>		
	Ghar Parau	£500.00
	Oxford University	£500.00
	FloorPlansNorth	£100.00
<b>Individual Contributions:</b>		
	Deposits	£780.00
	Kitty Payments	£570.00
	Top-up charges	£418.32
	STR training week charges	£208.00
	Individual Gear Orders	£2,304.00
	Individual travel (estimated)	£1,000.00
<b>Other:</b>		
	Owed from previous years*	£1,655.00

## Expenditure:

<b>Equipment &amp; Training:</b>		
	Communal caving gear	£885.00
	Dragon spares kit	£50.00
	Personal gear	£2,304.00
	Medical supplies	£180.87
	Other communal gear	£506.83
	Medical training	£489.50
	SRT training	£205.00
<b>Transport &amp; Logistics:</b>		
	Communal transport costs	£1,478.57
	Individual travel (estimated)	£1,000.00
	Food	£373.55
	Insurance	£169.00
<b>Other:</b>		
	Emergency phone calls	£73.00
	OUEC bulletin (03 and 04)	£200.00
	Publications	£120.00
	<b>Total income:</b>	<b>£8,035.32</b>
	<b>- Total expenditure:</b>	<b><u>-£8,035.32</u></b>
	<b>Balance:</b>	<b>£0.00</b>

# Pozu Chicago Survey



# Pozu Chicago Extended Elevation

