

PROBING THE DEPTHS OF THE PICOS PHREAS

Diving in the Picos de Cornion

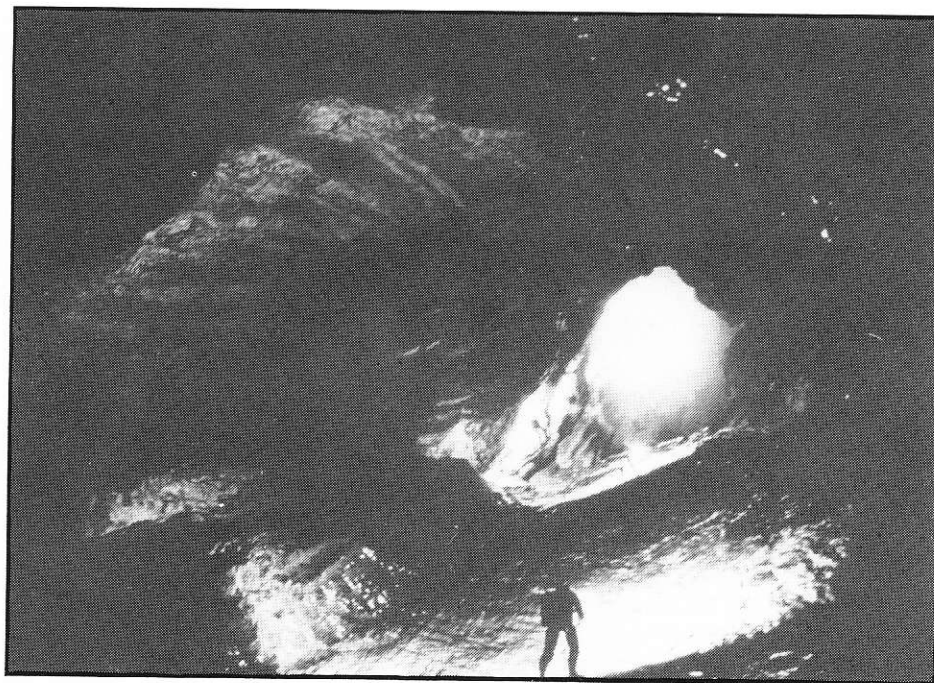
Background

The Picos de Cornion form the Western Massif of the Picos de Europa in Asturias Province, Northern Spain. In 1985 a small group of cavers from the Northern Pennine Club visited the area to assess the potential for exploration by cave divers (Refs: 1, 2, 3, 4). Their discoveries led to a larger expedition in 1986 which covered a much larger area including the River Cares Gorge (Refs: 2, 5).

One of the sites visited in 1986 was Cueva Culiembro; a resurgence cave which drains a large part of the Picos de Cornion. The major finds in 1986 led to a return to Culiembro in 1987 (Ref: 6), however the progress which had been hoped for was unfortunately thwarted by both depth and the growing complexity and remoteness of the system. Consequently a new approach was decided upon for 1988.

The 1988 Expedition

The nearest caves which drain to Culiembro are found around Ario, a small pasture 1200m higher up the mountain. The aim of the 1988 Expedition was to put a diver into the terminal sump of one of these caves. The cave chosen was Sima Cabeza Muxa (Ref: 7) and in many ways this was the obvious choice. The entrance is at an altitude of 1504m. The cave is 906m deep, 2.6km long and contains the largest stream in the area. A plot of surveys puts the ends of Culiembro and Cabeza Muxa as being about 1500m apart with a height difference of about 200m. Drawbacks however were the distance from the nearest road (over 10km including more than 600m of climbing) together with the amount of tackle required. A Himalayan approach was therefore adopted and a 19 strong expedition organised. Our base camp would be at Los Lagos, the road head. We would establish a top camp at Ario, the nearest water source to the entrance, and be prepared to camp underground if necessary.



El Gran Abisu

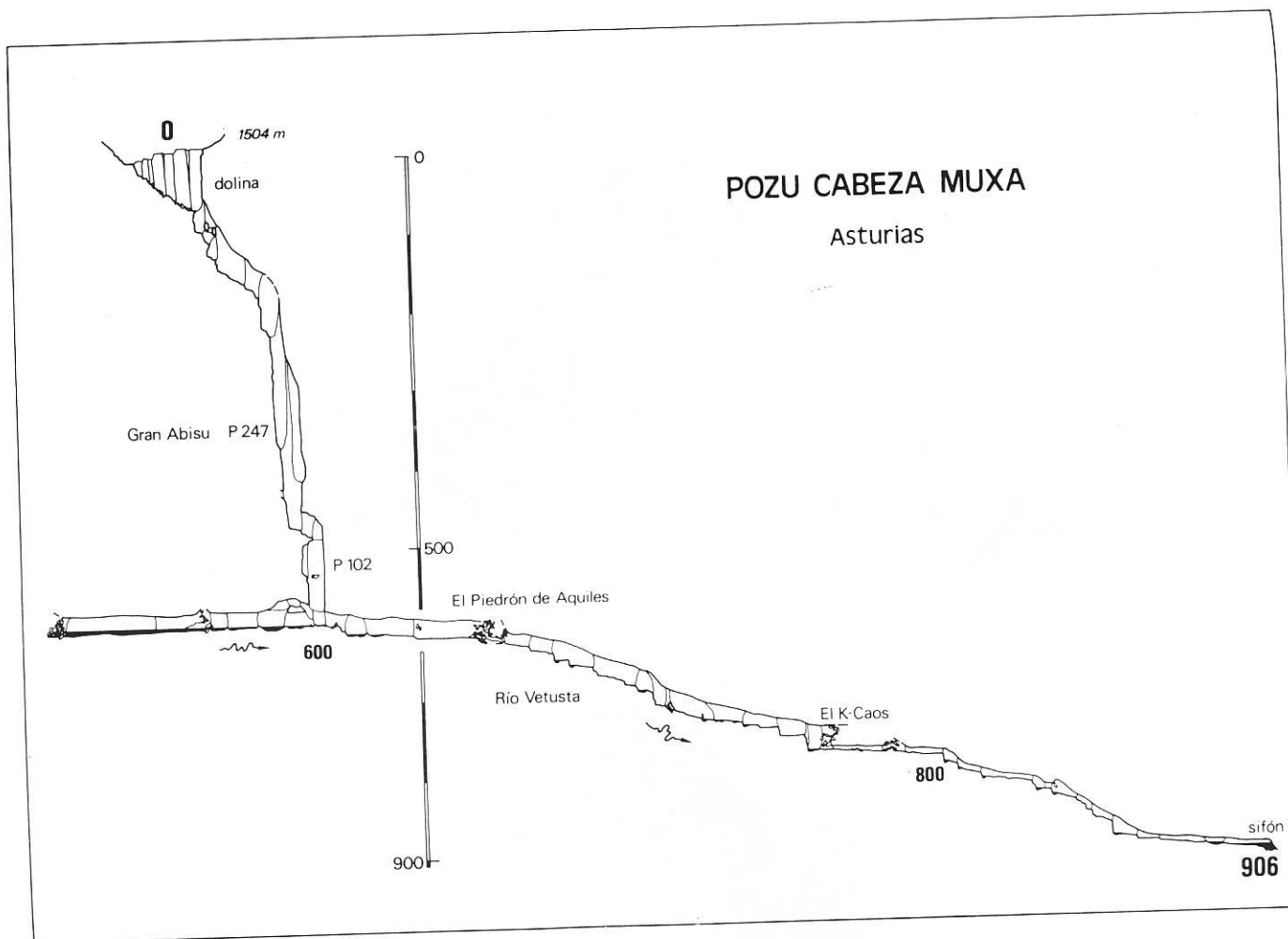
Rigging

Cabeza Muxa falls naturally into two sections; the 600m deep entrance series and the subsequent streamway. The entrance series consists of a vast doline, at the bottom of which is the first pitch of 30m. Pitches follow thick and fast, one after another down a wide canyon with a rubble floor. The rubble proved particularly perilous as it lay at its maximum angle of rest. The danger of a landslide to a caver further down the cave cannot be underestimated. The worst section of rubble slope is aptly called El Rocodromo. Several more pitches lead to El Gran Abissu, a 247m pitch which is followed immediately by a 102m pitch. The rigging of this series required a considerable amount of bolting which was eased by the use of a Bosch cordless drill. This was a mixed blessing however for, although it enabled us to get a long way down quickly, we later had to replace

all of the anchors because they were pulling out. All of the replacement anchors had to be hand drilled, nevertheless the cordless drill gave us a flying start (in more ways than one) to the streamway. The streamway is a splendid series of waterfalls, cascades and lakes passing two major boulder chokes on the way to a large limpid sump. There are a total of thirty pitches in the streamway section. Several sections require traversing and on occasions oxbows allow progress away from the torrent. It took a mere five days to complete the rigging after arriving at Los Lagos. The stage was then set for diving to commence.

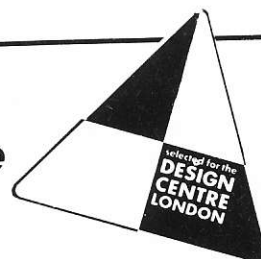
The Underwater Explorations

The initial plan was to put one diver into the sump and therefore one set of diving gear was on its way in even before the rigging had been completed. The



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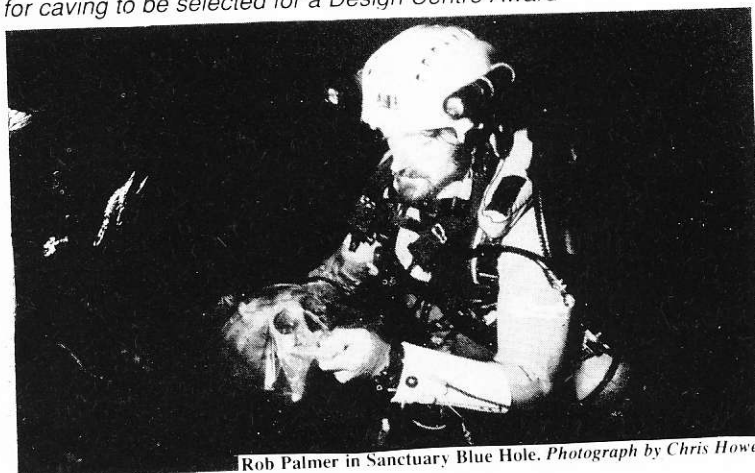
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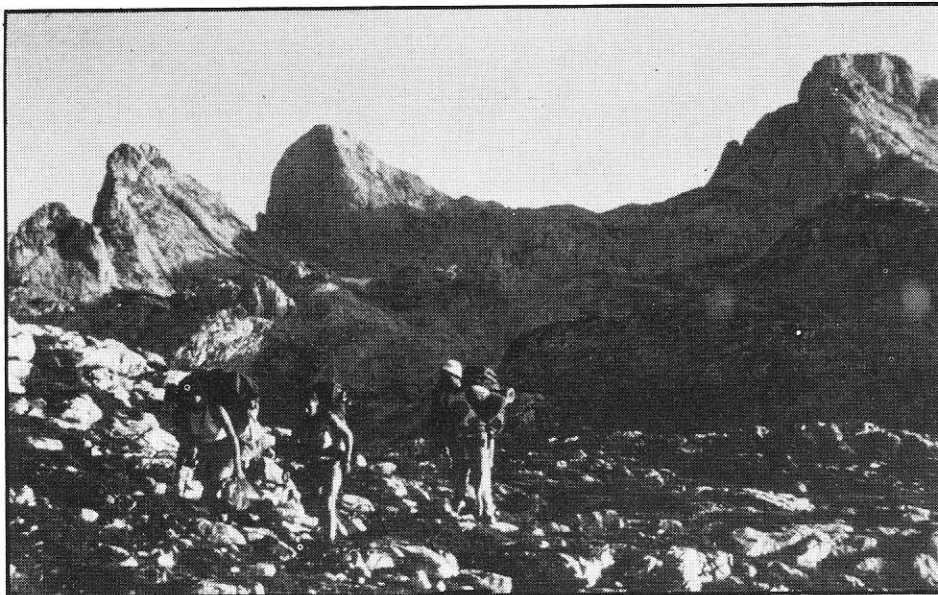
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Rob Palmer in Sanctuary Blue Hole. Photograph by Chris Howes

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Expedition members carrying gear to the entrance of Cabeza Muxa

first dive was set for the 30th of July, but a bottle tap was accidentally damaged and this prevented a demand valve being fitted. Despite the lack of an independent air supply a short penetration dive was made into the sump. The outlook was bright as the sump seemed to develop horizontally in a large passage. A speedy return with a fresh, intact bottle was obviously required, however the Picos weather struck. An eight hour thunderstorm followed by twelve hours of continuous rain raised water levels by over six metres and made the entrance series utterly impassable. After four days water levels receded enough to allow a second attempt at the sump. Unfortunately at Rick Stanton's second attempt prospects of a breakthrough were terminated abruptly when the sump dived down to -33m and clearly continued down and out of sight. This turn of events precluded any further exploration as the amount of breathing gas required to push on and carry out the necessary decompression was excessive. The time to derig had arrived.

Derigging

A simple plan was devised for derigging. People would go down the hole as far as possible, gather as much gear as possible and bring it back as far as possible. Using this system the cave was stripped in three days and all gear returned to Los Lagos in two.

Conclusion

Although the Cabeza Muxa Expedition failed to make any major discoveries, much experience was gained. Not only did members benefit from the challenging nature of the project but a

further insight into the structure of the Picos Phreas has been gained. Clearly progress in connecting the high entrances to their resurgences is likely to require prolonged, deep dives at altitude. The logistic problems of advancing through a system of deep perched sumps from either end is likely to provide a major headache for cave divers in the region for many years to come.

Acknowledgements

The Expedition would like to thank the following for their support, both financial and material: Sports Council; Bosch; Tate & Lyle; Nabisco; Batchelors; Thorntons; Rowntrees; Morning Foods; Nisa; Twinings; Springlow; Schwartz; Lanes Health Foods.

MEMBERS

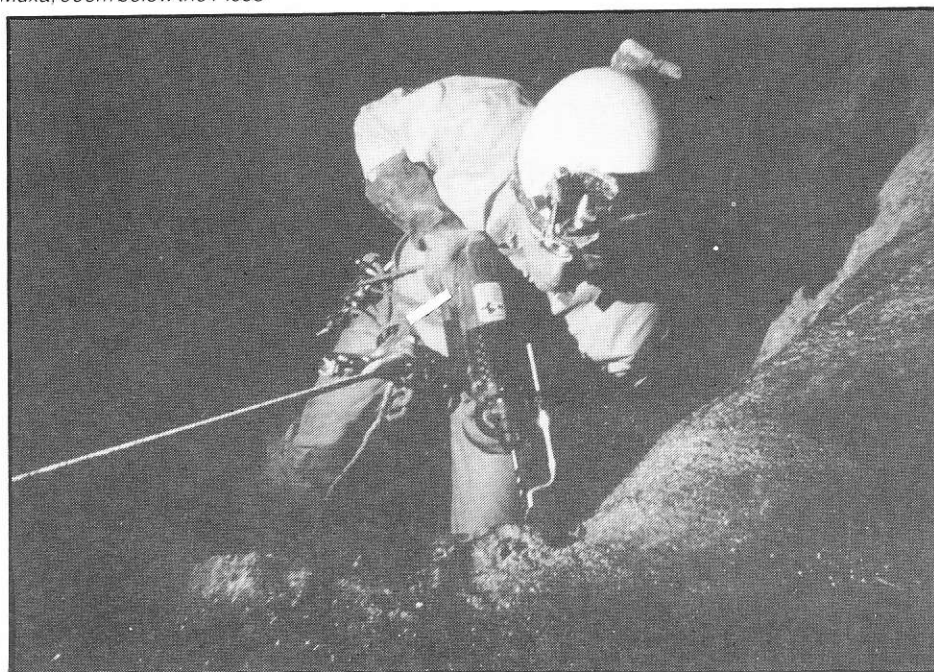
Chris Birkhead, Richard Colcott, Chris Danilewicz, Paul Eastwood, Bert Evans, Kath Force, Steve Foster, Simon Fowler, Dave Francis, Dave Hetherington, Sylvia Hummel, Steve Joyce, Neil Kemp, Dave Livesley, Harry Lock, Charlotte Roberts, Kev Senior, Rick Stanton and Angus Tillotson.

References

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3. Caves & Caving 30, February 1986, pp26-27
4. Cave Diving Group Newsletter 77, October 1986, pp28-32
5. Cave Diving Group Newsletter 81, January 1987, pp19-23
6. Caves & Caving 41, Autumn 1988, pp6-7
7. Atlas des Grandes Cavites Mondial, Courbon & Chabert, 1986, pp124-125



Preparing to dive the terminal sump of Cabeza Muxa, 906m below the Picos



Placing anchors using a Bosch drill in the 600m deep entrance series