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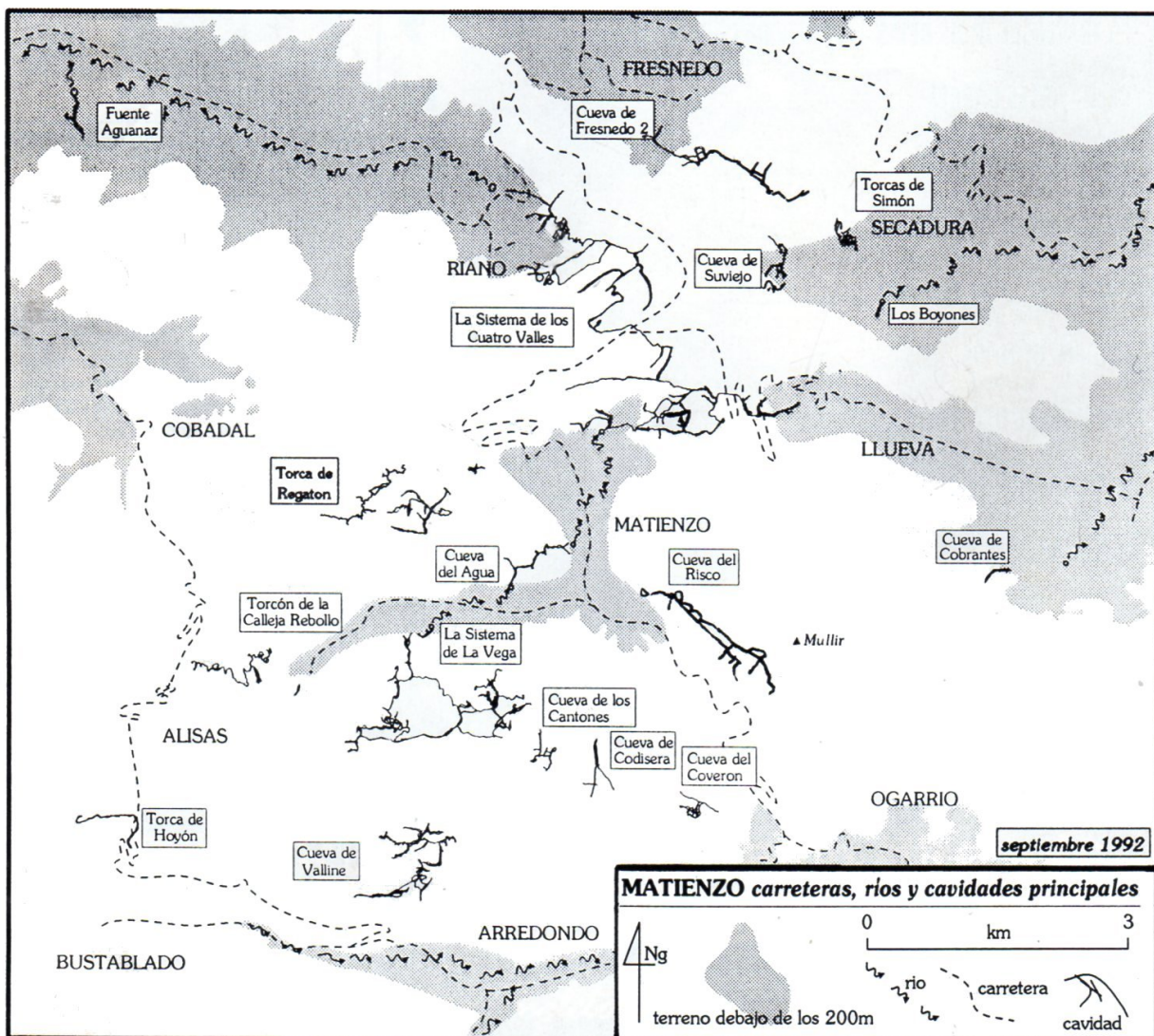


THE BULLETIN
OF THE BRITISH
CAVE RESEARCH
ASSOCIATION

Matienzo '92

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The 22nd British Speleological Expedition to Matienzo surveyed over 10.5km of new cave passage, taking the total of cave passage explored in the area to more than 154km, with about 900 catalogued sites of speleological interest. The explorations occurred over a 6 week period in July and August and involved more than 30 cavers.





Grotto at entrance to 200m Rift in Alpine Chough.

Photo: P. Eagan

FRESNEDO

The major finds of the summer were explored in Cueva de Fresno II, now the longest cave in the Fresno valley and heading under the Fresno/Secadura ridge. The hole was left last year at the strongly draughting Howling and a pitch above. The pitch lead to the extensions with over 4.5km of new passage, one of which joined back to the Howling through a very tight crawl. The cave has some very muddy sections, especially in the entrance series, but is generally straightforward caving with passage 5m wide and high in places.

Cueva de Fresno II is basically on one level, running parallel to the 4 Valley System but there are a number of inlets and tantalising glimpses of what appears to be higher passages. There are many leads left to push and we hope to make this a major objective for the summer of 1993. The trend of the cave is towards Secadura, as can be seen from



Fresno II. X

Photo: Pete Smith



Second ladder pitch, Regaton. X

Photo: P. Eagan

the plan and elevations (fig 3). Caves in Secadura were pushed to try to gain a "back door" to the further reaches in Cueva de Fresno II.

SECADURA

In 1978, Torca de Simón I was explored by us and left at its southern end at an undescended drop in boulders. This year explorers pushed on down and entered a streamway and low level that ended at possible sump and a high level over the top of the streamway. The cave comes very close to Torca de Simón II.

Torca de Simón II is a maze cave with mainly walking sized passage. This year the cave was extended through a short dig to a pitch down to the streamway with the upstream route heading into the hill. To the north the stream sumps under the southern passages in Torca de Simón I; the western inlet turns north and becomes 10m wide and floored with calcite and eventually chokes at a long term dig.

Torca de Suviejo was explored in 1977 by ourselves and a Spanish caving group. We revisited it and extended it slightly in 1987 but further visits may well be worth while as it ends within 500m of the present end of Cueva de Fresno II.

It is presumed that all of the water seen in Torca de Simón I and Torca de Simón II resurges in Cueva de Churro. It would seem very likely that the two Simón caves can be joined giving a complex system of over 3.5km. If Fresno II was linked into the two Simón caves and Suviejo, a through trip from one valley to the other would be created and a 10km system proved (see diagram below).

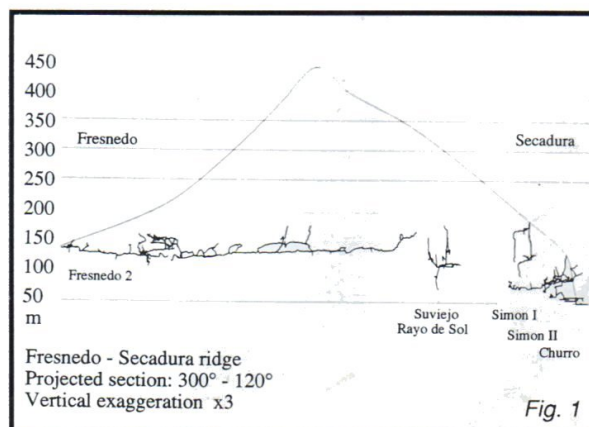
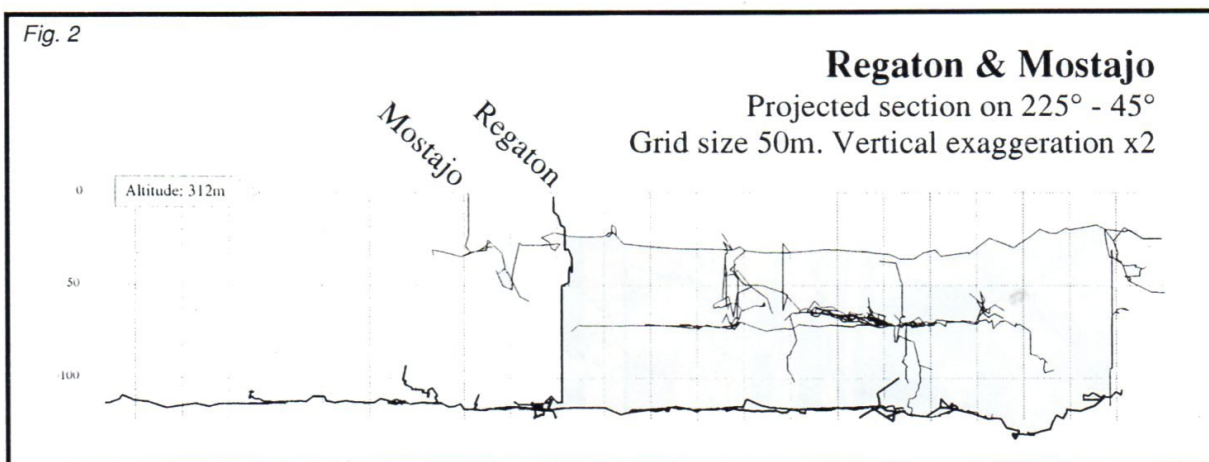


Fig. 2



CUBIJA

Torca de Mostajo has been known since 1978, with over 6km on at least 3 distinct levels. This year Torca de Regaton, further up the Cubija valley, was discovered and explored to 3.2km length with most of the cave being at the altitude of La Vega valley floor (about 180m above sea level) and running parallel to the high level passage in Mostajo.

The cave drops from 303m altitude in a series of pitches, ending at a pitch of some 60m into the main level. The passage is up to 20m wide and often strewn with boulders. The downstream, northern passage ends at a draughting boulder choke. Another streamway heads down to the west into the unknown through an incompletely explored boulder choke.

Although Torca de Mostajo and Torca de Regaton appear very close on the plan, the passages are at different altitudes (figs 2 & 4).

OTHER SITES

Further explorations were carried out in Alpine Chough Pot on the eastern side of the depression. At over 800m long, this is by far the longest site on Muela at an altitude of about 500m. Below Alpine Chough and near to Caravueso, the sink for the Matienzo depression, Cueva de Tres Ninos was explored for a further 75m to give a length of nearly 600m. The position of the cave and its altitude hints at a higher level of development in the 4 Valley System.



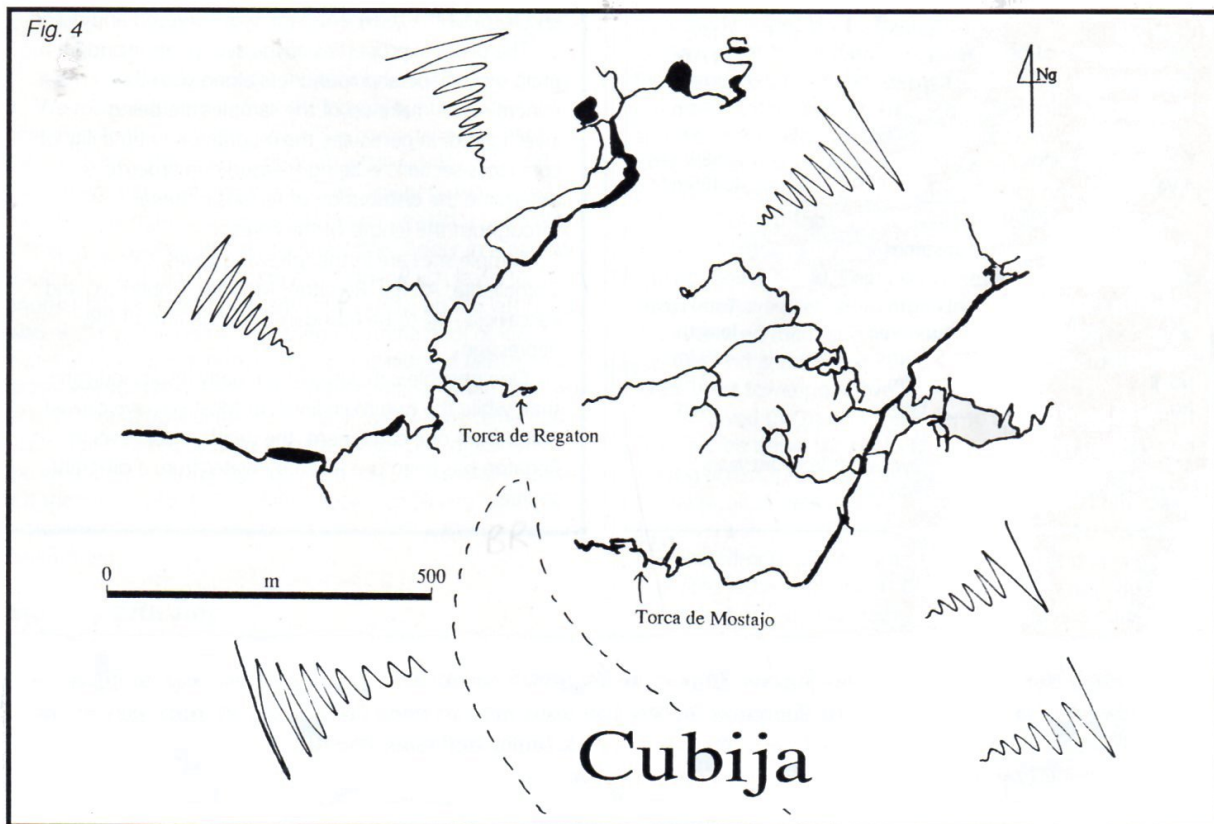
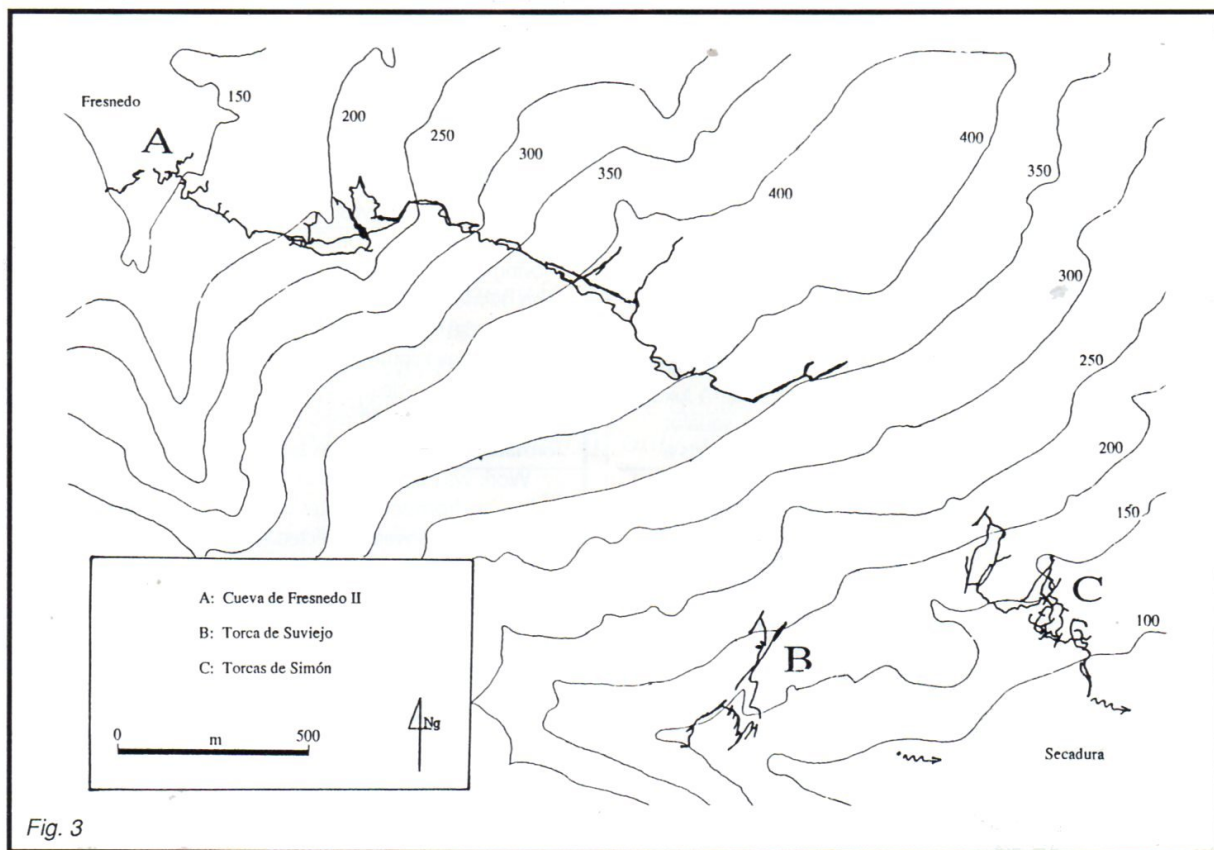
Simon I. Sandy Passage above stream.

Photo: P. Eagan



Simon II. High level traverse.

Photo: P. Eagan



We were once more invited to explore caves in the Camargo region of Santander. This year, Pena Jorao was found to be sumped due to gravel banks moving around at the far side of the long duck. The sump was passed, the gravel dug out ready for next years exploration, and a few metres surveyed in the entrance series. A couple of other short caves were surveyed in same area.

ACKNOWLEDGEMENTS

As always our thanks must go to the Spanish authorities who gave permission for us to cave around Matienzo. We are also grateful for the assistance freely given by the Spanish cave rescuers, Guardia and National Defence group.

An innovation this year was the tackle store, shower and toilet block built in the camping field behind the bar. A luxury and welcome change to those who remember the squalor amongst the oak trees. Less welcome is the fee – 300pts a night – that Pablo is charging!

Also thanks to the considerate farmer at Fresnedo who kept his cows off good pasture for a fortnight so that cars could be parked near to the cave entrance without getting scratched.

SUMMARY

Cave	Length surveyed	Total cave length
Fresnedo II	4661m	6117m
Regaton	3247m	3247m
Simon II	668m	2450m
Simon I	493m	823m
Cave 246	442m	442m
Azpilicueta	409m	21475m
Alpine Chough	281m	810m
Virgen IV	84m	84m
Cave 909	77m	77m
Cueva de Tres Niños	75m	589m
4 Valleys	46m	40485m **
TOTAL	10469m	

By invitation in Camargo, Santander

Cave	Length surveyed	Total cave length
Peña Jorao	55m	4797m
No. II	271m	271m
No. 5	88m	88m
TOTAL	414m	

**This figure has been revised downwards from last years supposed length for the 4 Valleys System.

Two scientific projects are currently being undertaken around the depression – erosion estimates and a comparison of sediments from within caves and on the surface at possible past catchment areas.

The investigation of the relative denudation rates on various aspects, slope angles and facies of hill slopes involves the use of gypsum blocks. These are placed at the soil/bedrock horizon. The weight loss caused by the moving ground water over a twelve month period can then be measured, enabling comparisons between sites to be made.

The many kilometres of relic phreatic passages found in Matienzo are ideal locations in which clues to the past are preserved. Undisturbed sediments and calcite formations of various ages are relatively common.

Work was undertaken in 1992 to investigate cave sediments from several sites within the depression. Sediment cores were collected to assess possible similarities in the sediment samples between caves; the aim being to link the formation of cave passages from now separate caves to a common cause. Several potential palaeocatchment areas were also investigated to hopefully eliminate the potential problem of having two or more very similar sediment source areas.

Samples were taken using an adapted length of aluminium tube containing a metre long length of PVC pipe. The apparatus was simply driven vertically down into a sediment bank and the material collected inside the PVC pipe. The pipe was then sealed at both ends and retrieved for later investigation. The position, size and form of the sediment bank was surveyed and noted.

The physical properties of the sediments including grain size, shape and roundness along with the mineralogical make up of the samples are being investigated. In particular, the magnetic susceptibility of core cross-sections is being measured in order to determine the distribution of ferrous material throughout the length of the cores.

Sample sites are in the following caves: Coteron, Comellante, Arenal, Regaton, Mostajo, Coberruyo and Rascavieja – all to be found in the Vega arm of the depression.

One possible conclusion from early results indicates that, while the two main levels in Mostajo have carried water from one catchment, the nearby main level in Regaton has been produced by water from a different source.

**During the expedition, Giles Barker slipped to his death while on a photographic trip in Torca de Azpilicueta. He had not been to Matienzo before but from first arriving he caved and took part in the expedition with enthusiasm. He will be sadly missed by his family and many friends.
An obituary/account of his accident appears elsewhere.**

