

Speleology

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Expedition Report: Matienzo, Spain 2009

Juan Corrin summarises recent exploration in Matienzo.

Over 90 cavers and associates visited Matienzo over Easter 2009 with most people staying in local accommodation. The highlight of the expedition was undoubtedly extending Torca La Vaca at Hornedo. In the Four Valleys System, explorations and surveying at the end of the Gour Inlet extensions in Cueva Hoyuca were completed.

Groups from Sheffield, Huddersfield and Manchester Universities were among the 60 cavers and associates who participated in the summer expedition. The highlights during the five-week period included 4km extensions in Torca la Vaca, a new cave in Riaño — Cubio del Llanío — being pushed to 1.3km, and nearly a kilometre surveyed in the entrance series of Cueva Hoyuca. A total 14.8km

of new passages were surveyed during the year. The overall length of explored cave in the Matienzo area is now more than 302km.

Surveying with DistoX

At least six DistoX instruments were in use over the summer, with varied results. Some surveyor/DistoX/PDA combinations seemed to be both accurate and reliable but there were problems with wrong readings, Bluetooth

connections and calibrations. In a comprehensive recalibration by Phil Papard, five of the devices were found to be up to 8° out in east-west directions (most were about 4° out east-west and accurate north-south), even though original calibrations had been carried out to well within the error limits.

After re-calibration they were all accurate with east-west errors of less than 0.5°. The key to calibration appears to be isolation of the DistoX from any possible magnetic field (including belt buckles, watches, bracelets, keys, etc.) and very careful calibration

of the first four directions. Phil set this up as accurately as possible north-south and east-west and took particular care that the angle between the directions was as close as possible to 90°. The error on calibration was good, at less than 0.2Δe. Phil advised that the DistoX accuracy should be checked in both directions between stakes set out east-west. The readings should be 180° apart, and if not, re-calibration is necessary.

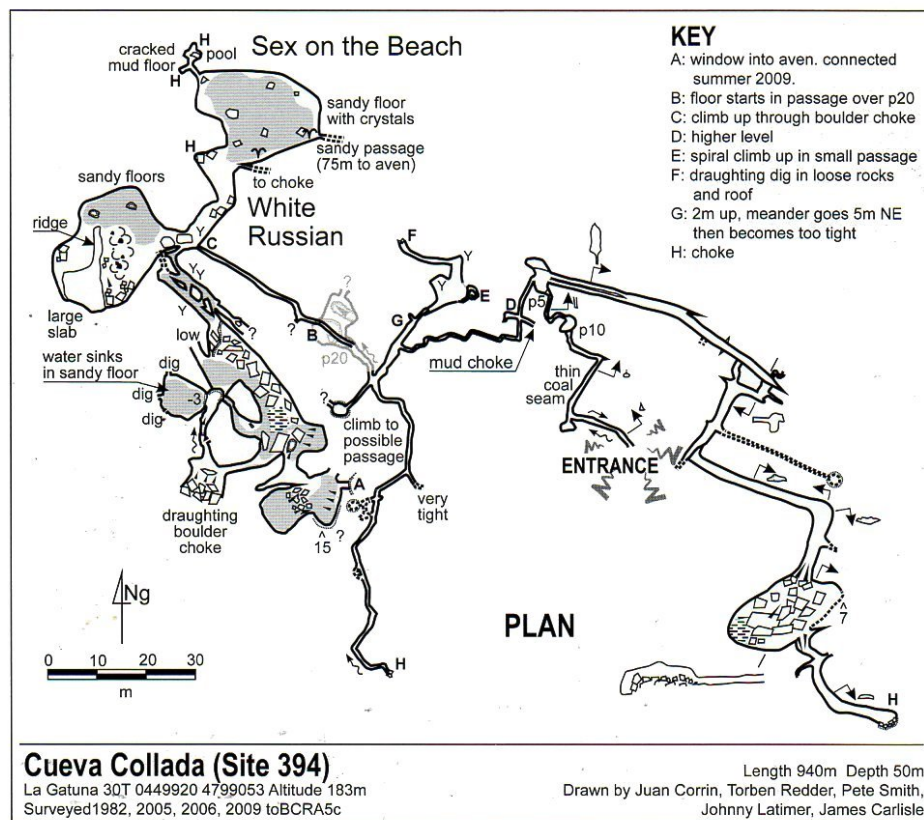
The survey data from this summer must be considered suspect until underground survey loops are closed and/or surface connections are surveyed to GPS points.



Ben Stevens surveying in Cueva de Cuatro Entradas. Photo: Tim Webber.



Jim Lister guiding diving equipment up the 36m Buttermere pitch in Torca la Vaca. Photo: Jane Chilton.

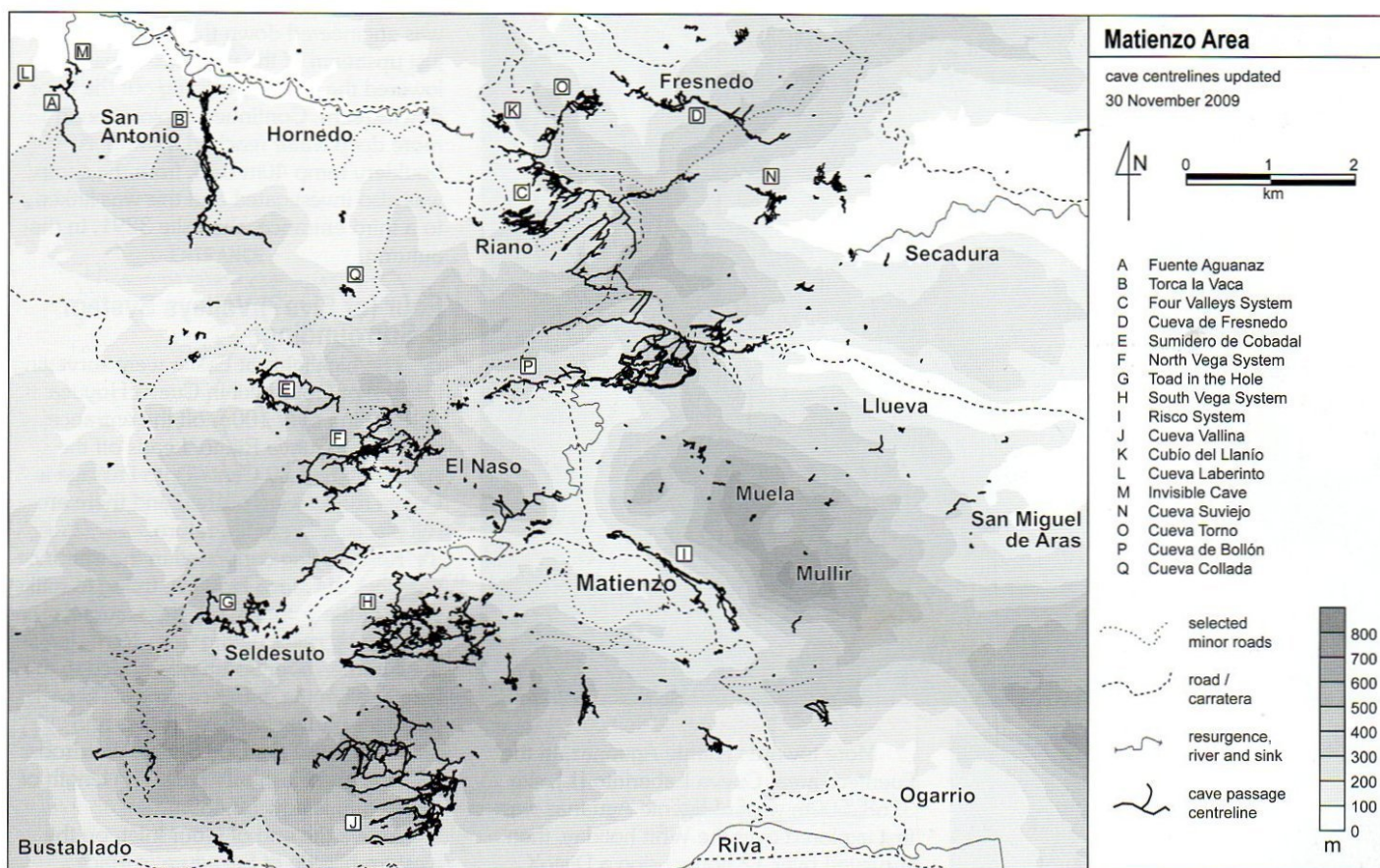


The Northwest Sector

Fuente Aguanaz [A] is the main resurgence in the northwest sector with some of the water coming from the Sumidero de Cobadal [E]. Cave of the Wild Mare is a resurgence 1.5km to the east which may also receive water from the Cobadal area. The cave behind Wild Mare is Torca La Vaca [B], which was extended by 2,337m over the Easter period and 4,282m over the summer.

The only way into the continuing passages is through the 5m-long Penrith Historic Market Town duck (or sump, depending on water levels) from Lake Bassenthwaite. The water level went up and down over the ten days of Easter exploration, but not by much: airspace varied from nothing to about 0.10m and a well-positioned fixed rope made the underwater route a free dive. In the dry summer, there was always 0.30m of airspace.

The extensions all went from the 40m-high Scafell Aven. This was climbed for 20m above last year's high level (itself 17m above the streamway) to reach another level that headed both north and south. To the north, the route choked



as it approached a surface depression (site 3166). At the start of the summer expedition, site 3166 was excavated on half-a-dozen occasions and developed a good draught. A French team from ABIMES (the Association des Barbastelles d'Issy les Moulineaux pour l'Exploration Spéléologique) concentrated on a nearby hole — a draughting cold store (site 3286) — reaching a depth of about 20m between sandstone boulders. Tiny rifts down now require people on the other side to show the route to concentrate on, so there was no immediate bypass to the sump/duck at Lake Bassenthwaite.

To the south, the passage descends to intersect another

level and it is this that has really 'taken off'. Routes to the north choke, while to the south the passage splits: the route to the east ends at a tight rift while the other continues for over 800m to a point where the Easter explorers turned round with the passage still going. This is not very far

Lane revealed 400m of passage with an inlet, later surveyed for 756m. This ends just short of a large area of surface sandstone collapse, The Langdales.

The most compelling lead in Torca la Vaca was the open passage heading south towards the Cobadal depressions. This was

pushed on August 6th when over 800m was surveyed. The high level route reached a junction with southern and western routes about 50m beyond the Shoulder of Mutton choke. The southern passage ends at another choke where it splits into three, and the western route appears to be still open and going in passage 5m high with a sandy floor.

Two days later, a descending, muddy boulder slope at the high-level junction was pushed into large passage, Henry's Way, ending in a boulder choke and ramp up at the most south-westerly point in the cave, Henry's

Chamber, about 1.7km from the entrance. This was later explored down a 22m drop to a sinking stream and a boulder choke in large passage ending a further 100m to the south.

The passage has now passed under the Alto de Collada ridge into the Cobadal area and currently finishes 277m below ground level.

An inlet off Henry's Way meandered about in smaller, generally rift passage for a surveyed 1,500m with another 200m or so explored. This currently ends just inside the



Right: Mark Smith finding out that Torca la Vaca's Shoulder of Mutton boulder choke is terminal. Photo: Phil Papard. Above: John Clarke in Cueva-Cubio del Llanio. Photo: Phil Parker.

from the final Shoulder of Mutton choke in another passage at similar altitude where the cave finished last year.

In the summer, the first lead investigated was a choke that might connect with the digs and a scaling pole job in the same area that entered 127m of passage, but no surface connection. Trips then concentrated on the leads further into the cave left from Easter. A loop between the highest level south of Scafell Aven and a passage 'wide open with excellent draught' off 1 Haverflatts



Top: Kevin Brohan with large helictites in Cueva 415.
Photo: Jez Wong. Above: Helictites in 415.
Photo: Phil Papard.

La Gatuna area to the east and appears to be heading towards Cueva Collada at the head of the valley (see below).

In the entrance series at Easter, Jim Lister attempted to dive upstream and downstream at the base of the Buttermere pitch. On one occasion the visibility was 3m, but on the day of the planned push it turned out to be 3cm with too great a flow to push downstream. Upstream proved confusing with no real conclusions — a dive to repeat.

Much activity took place above and beyond the Torca La Vaca system — highlights were Pooch Cave, site 3175 and site 3170, although all were somewhat squalid. In the summer, site 3300 was excavated as a draughting shaft with a number of pitches. The lower level dropped down to -63m but the draughting middle level, with traverses, continues towards the new Langdales inlet about 60m away on the same level.

To the east of Torca La Vaca, the La Gatuna area was reinvestigated. The major success came at Easter in Cueva Collada [Q], when a team pushed on across the top of the final p20 and entered a large and complicated set of bouldery chambers. Although adding over 400m to the length of the cave, the passages have yet to move away from the depressions.

More towards Fuente Aguanaz, in the Fuentecil area, Cueva Laberinto [L], site 3268, 500m west of Fuente Aguanaz was first explored over the Whit holiday, then surveyed over 12 hours using a DistoX. The cave is a maze, made worse for surveying with choked passages (potential digging sites) every few metres. The 329 surveyed metres would easily fit under half a football pitch. There are a number of possible leads.

Fuente Aguanaz was also the scene for new explorations. An inlet to the east was pushed for 83m and the aven passage to the west was resurveyed and pushed beyond the base of the aven to an inlet sump. A climb up before the sump reaches a large passage with a pitch down, still to be climbed.

The most unexpected find of the summer was site 3283, Invisible Cave [M], so called because the open hole, next to the large resurgence entrance of Fuente Aguanaz, had been ignored as an overflow passage. After passing through 15m of chest-deep water, the route opens up into Room 306 where a 1m step up enters a crawl to a pool. A generator and submersible pump drained the pool to allow crawling past a run-in area to the continuation of the cave. On the first trip through, watery passages headed upstream to the south east, away from Aguanaz. That visit ended at a draughting duck some 120m SE of the entrance. Before the next trip, a second entrance

was engineered down through boulders just upstream of the pool and a team lowered the duck by digging out the floor downstream. Continued exploration in more deep water reached a sump. A bouldery ramp 40m back from the sump was also investigated and this was linked to a third entrance, shaft site 3291, in the autumn.

Four (or Five?) Valleys System & Surroundings

The highlights at Easter were surveying the end of Gour Inlet in Cueva Hoyuca and finding over 100m off the entrance passage in Cueva Riaño. Leads off the Acid Bath and 89 Cents Tinto Passage in Cueva Riaño were pushed and there are still places that merit a return.

Resurveying continued in the entrance passages of Cueva Hoyuca, trying to make sense of the complex passages, surveys and survey notes dating from 1974. In the summer, over 954m was added to the length, all in the entrance series. These passages partly clarify old routes and pitches around the Dog Series, Wardrobe Passage and Flashbulb Hall. The length of the system is now 52,439m.

Above the end of Gour Inlet, on the western hillside of Secadura, surface investigations resulted in finding sites 3217–3221. The most intensively worked was the draughting site 3218, where boulders were removed and scaffold used to stabilise the 12m drop. Unfortunately, one boulder dropped onto Paul Fretwell, giving him a badly bruised foot.

In Cueva Suviejo [N], now only 600m from the end of Gour Inlet, passages off Brain Cell Hall extended the system by 143m, but no closer to Hoyuca.

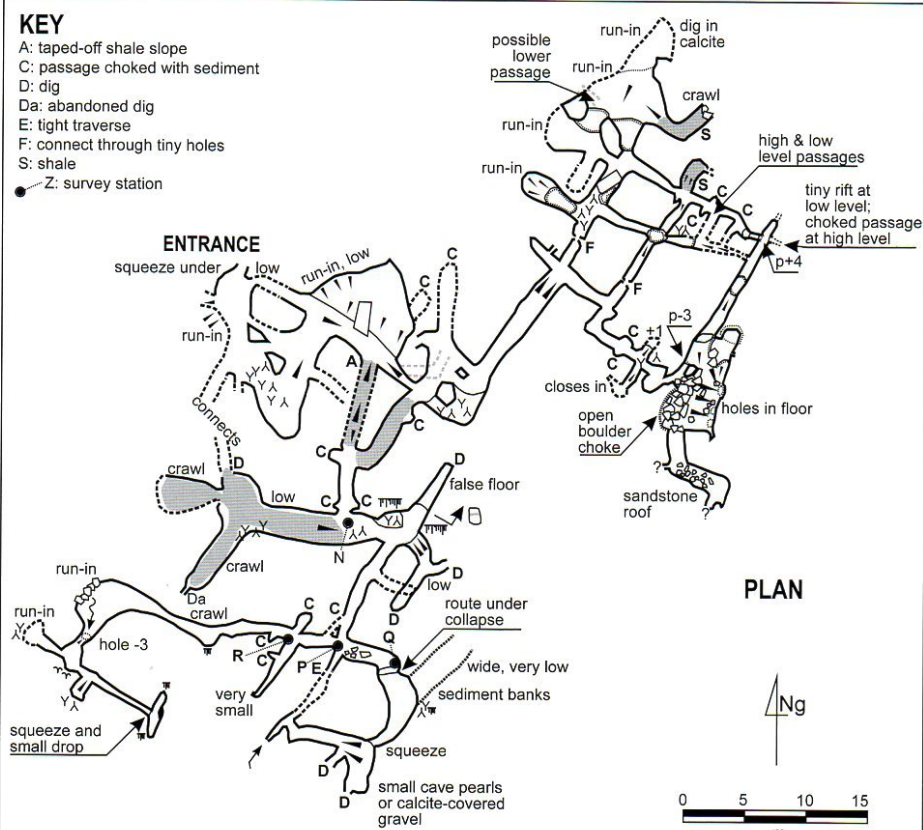
Lying to the north and west of Cueva Riaño, the entrance to Cueva-Cubio del Llanío [K], site 3234 is found at the back of a built-up sheep shelter with a draughting crawl as the entrance. Dug out in 10 minutes at Easter, the cave has now grown to 1,525m in length and, although progress is slow, there are still a number of tantalising leads that may see connections with Cueva Riaño, Cueva Espada



Nicky Dennis and Chris Castle admiring formations in Cueva-Cubio del Llanío.
Photo: Juan Corrin.

KEY

- A: taped-off shale slope
 C: passage choked with sediment
 D: dig
 Da: abandoned dig
 E: tight traverse
 F: connect through tiny holes
 S: shale
 Z: survey station

**Cueva del Laberinto (Site 3268)**

San Antonio 30T 0446000 4801460 Altitude 95m
 Surveyed 2009 by Chris Camm and Juan Corrin using DistoX

Length 329m Depth 12m
 Drawn by Juan Corrin

and Cueva del Torno. Early explorations in the summer scaled 4m up to open passage that choked almost immediately. Large passages to the west choked after a 15m pitch at a silted 'old sump', while well decorated passages to the east have draughting digs. To the north, the cave enlarges at a 32m high, draughting aven (to be climbed) and enters a complex area of parallel rifts, drops and digs. The deepest point here is down a fine 15m free hanging drop in a rift where an open passage can be seen and another 20m drop is undescended. Beyond chossy, roof breakdown passages at the north-west extremity, a 9m pitch is reached with an open passage over the top awaiting exploration.

In La Secada, the Hole-in-the-Road / Bollón [P] complex was extended by 405m. Dry conditions in the summer allowed cavers to explore beyond the normally sumped boulder pile at the base of the entrance pitch and slope. Avens were climbed but the main breakthrough came through a choke at the end when rising, well-decorated sections were explored. Other passages were surveyed near the slope down from 1452 into Bollón. The western end of the cave is now only 200m from site 415 which in turn is only 400m from Torca de Mostajo and the North Vega System [F]. Bollón itself is within 50m of Carcavuezo in the Four Valleys System.

In Cueva del Torno [O], the cave in the Fresno valley that remains 50m from

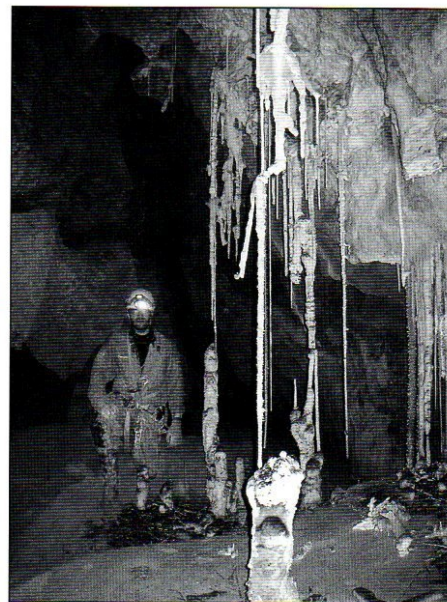


Phil Parker passing through the lowered pool in Invisible Cave.
 Photo: Juan Corrin.

linking with the Four Valley System, an inlet was pushed to the east, some 50m beyond the boulder choke on the way towards Riaño. The explorers stopped after 150m where a 'thin and determined person is needed' and dry conditions. A push was also made at the potential Riaño connection area but the 122m of survey passed through well-decorated sections and some very loose passages. One of the explorers at least, is not returning!

El Naso/Cubija/Las Calzadillas

At Easter, a number of trips into Cueva Morenuca, part of the North Vega System [F], significantly extended the cave. Part way along the south-west-trending Sick Inside passage, an awkward traverse over a pit entered large passage to a second pitch. The continuing passage on the far side, initially awkward, became extremely well decorated before closing in. The 755m



Kevin Brohan among the formations in Cueva Morenuca. Photo: Patrick Warren.

of new passages pushed the length of the North Vega System to 19,422m.

Seldesuto

Carbon-14 dates have come back for the human baby skulls found in Callejón de Seldesuto 2. Unfortunately, the dates range from 60 years ago to the 17th century.

Muela/Mullir

The track on the north side of Muela is now well established and it is possible to drive up to at least Wild Horses Cave at 620m altitude in an ordinary car. Pylons are being erected and eventually cables will complete the landscape desecration. But while the track is driveable, it makes sense to make the most of it. A number of holes were 'ticked off'. On the Lluvea side, a Christmas 2008 find, Cueva de Cuatro Entradas (site 3116), was extended at high level by 72m to give a length of 245m.

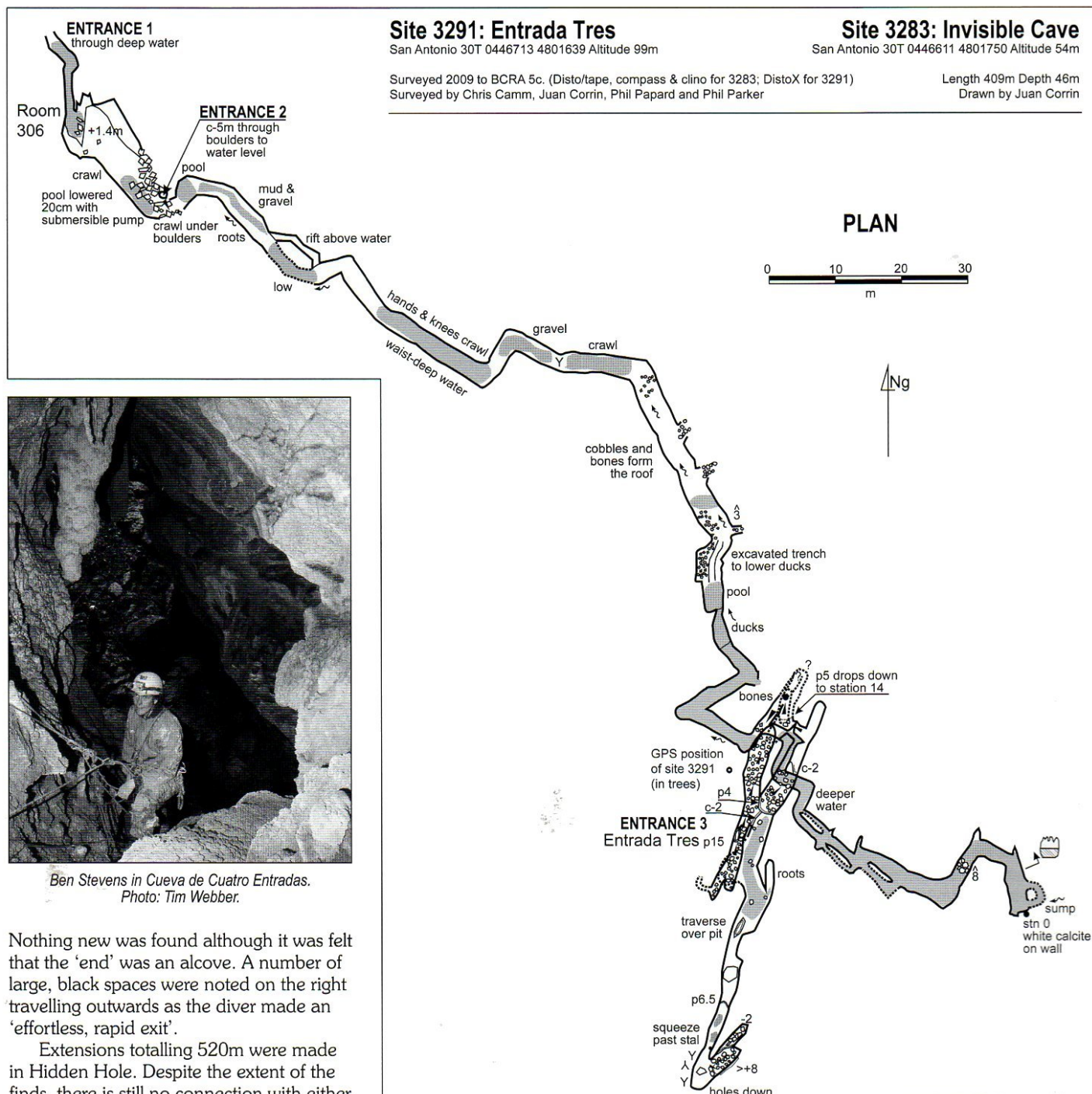
West of Cruz Usaño

In the summer, Cueva Tablons was finally opened up through boulders about 13m down. A short pitch leads to moves between, around and over more boulders. Routes are dropping down the side of a hading wall, the rest of the cave being quite loose. The depth of the dig is now 27m and the length increased from 26 to 92m, some in solid passage.

South Vega

Dave Ryall made three dives in the South Vega system [H]. The first was well inside Cubio de la Reñada, just beyond Breakdown Chamber, where a 40m dive entered a canal with a voice connection 10m above. A further 40m dive entered an air bell with an ascending hading rift where the sherpas could hear the diver shouting.

Two dives in Cueva del Comellantes were a day apart and with totally different conditions. The first had 3-4m visibility but the second very poor visibility and a strong flow after heavy continuous rain.



Ben Stevens in Cueva de Cuatro Entradas.
Photo: Tim Webber.

Nothing new was found although it was felt that the 'end' was an alcove. A number of large, black spaces were noted on the right travelling outwards as the diver made an 'effortless, rapid exit'.

Extensions totalling 520m were made in Hidden Hole. Despite the extent of the finds, there is still no connection with either Cueva de Juan Lombrero or the main South Vega System.

Other Issues

Meetings took place with Spanish and French cavers trying to coordinate dye tests. Caving groups in the Asón are hoping to trace water routes to the north of Bustablado. Among other resurgences, there is a possibility that water may emerge at Fuente Aguanaz and it would benefit nobody if simultaneous dye tests were being carried out.

Think of the most tranquil and scenic area of Matienzo, and then plan to put a quarry there. That's what Exploración y Proyectos Mineros SL, is hoping to do. They have the mineral rights to a large area of the lower Cubija valley and have produced hefty documentation detailing the extent of a 110m-high quarry where three types of decorative limestone would be extracted. New quarries in Spain have

to be hidden from main roads and, according to the proposal, the quarry would not be visible from Cruz Usaño road. This is not true, and the company appear to have forgotten the Alisas-La Cavada road where about 75% of the workings would be highly visible. There are also errors in the coordinates given for the quarry — they do not agree with the published maps.

An independent environmental impact study has been requested from the Cantabrian Government Environment Department, citing these errors and omissions as good grounds for refusal. The Mayor of Ruesga has also agreed that a study should take place and will not sign the licence to start work until (if ever) the application is proved to be legal and meets all requirements. An article appeared in the newspaper El Mundo and there are moves by various individuals and groups 'behind the scenes'.

The latest scheme to ruin the Matienzo landscape and cause damage to caves is a large wind farm. Full details are not known but it is proposed to run one line of generators along the ridge from Fuente las Varas to Alisas and along El Naso.

Throughout 2010 we're celebrating 50 Years of Speleology in Matienzo — 10 years of Spanish explorations then 40 years of British and international groups. ■

Conclusions

Thanks must go again to Pablo and family at Bar Germán — the use of the restaurant as a base during the larger expeditions is vital and greatly appreciated. The Ghar Parau Fund committee awarded £400 to Matienzo 2009, with an additional £75 individual award

matienzo.org.uk

Matienzo 2006: Speleology 9, April 2007.
Matienzo 2008: Speleology 13, May 2009.