Caves & Caving

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MATIENZO 1988

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Cueva de Riano — Juan Corrin

The 1988 Expedition was another success in terms of passage discovered and surveyed — 7km were logged and yet more exciting prospects opened up.

Matienzophiles will find last year's area map, published in *Caves & Caving 41*, a helpful companion to the following account.

The Four Valleys System

All the water draining from the Matienzo depression sinks in a bouldery mess in normal water conditions, but, in flood, flows on eastwards for 200m to sink around the *Carcavuezo* entrance. Underground the passages and water trend to the north and east and form part of the Four Valleys System.

This year, partly by pushing back westwards over the stream, the system was extended by 4km to 37.2km and an interesting set of passages entered (*Figure 1*). The breakthrough came while surveying some bits around the Afternoon Stroll. A small rift passage was followed back towards the Carcavuezo streamway where water could be heard down a deep rift which was then traversed and descended to connect with the river. Whilst surveying out, a bedding was entered and followed back over the streamway which, instead of pinching out got bigger and entered a 5×5m passage. The survey was hastily abandoned and the main passage, Gobsmacker, was stomped along for 400m to where a major change in direction provided a natural place to call a halt. In all 909m was surveyed, not quite the magic K! A big push the next day resulted in another 700m; cave of similar dimensions heading in a westerly direction towards *Volvo (Cueva de Bollon)*, a postulated old sink for the valley. Subsequent trips increased both the length of the Western Series to 3km and the amount of speleogenesis bull.

It would now appear that block faulting at the northern end of the valley has allowed development within each block, mainly strike orientated, with the northerly dip and faults on 60 degrees allowing the water to head towards the synclinal axis which collects both the Cueva Riano and Uzueka streamways.

Further into the cave, around the Sewers of Doom, 750m was surveyed in a maze area where cave density is 500m in a 50m square — about 2.5km remain to be surveyed.

Cueva de Riano — Juan Corrin

In *Cueva de Riano*, 220m of new passages were surveyed and the cave extensively photographed, the first time since its discovery in 1973.

Toad in the Hole

This system, at the southwestern side of the depression, was where the second big discoveries were made. A series of pushes extended the cave 700m to the northwest under the high ground of Calzadillas; an unexpected extension under an 'unknown' area! In all 2km of cave were surveyed, mostly on the main route. Some splendid stal formations were discovered and a number of leads remain to be pushed (*Figure 2*).

The speleogenesis is anyone's guess, but it does seem that water has come from the west and south along faults where phreatic mazes are found and has headed north down dip in good walking passages until other faults and their associated phreatic mazes are met. Ongoing passages beyond these faults have developed in the Orbitolina beds which show characteristic breakdown and collapse. Two streams have been heard at the far end and these may be dye tested next year. Water may resurge in the Matienzo depression, via *Cueva Mostajo* and the Rio Tuerto inlet in *Cueva de Agua*; may drain into the Four Valley System; or may flow to *Fuente de Aguanaz* at San Antonio.

Fuente de Aguanaz

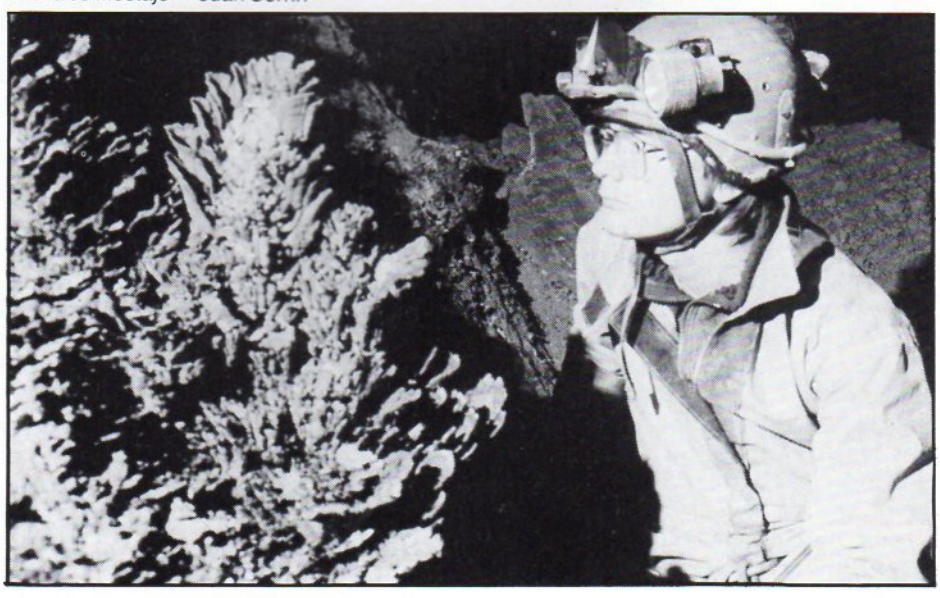
The entrance to *Fuente de Aguanaz* lies 7km to the northwest of Toad, well outside the depression. The cave is a water supply and various permissions are needed. The initial route, behind the true resurgence, passes through a collapse and reaches the stream. The passage allows swimming 5 abreast with the airspace being 5×5m. After 500m a series of cascades allow a brief rest before another 250m of swimming to a supposed sump. On the first full trip the cave was explored and hyperthermically and sportingly surveyed in four and a half hours — the next trip is likely to use floatation to reach and explore the side passages and search beyond the sump.

Some other discoveries

Cueva de Mostajo was extended to 6.5km. The passages ended, in the middle of Enaso, at a pitch which has yet to be explored.

The holes on Muela continue to be explored at a slow rate. Of the hundreds of sites there must be one which will eventually lead to a horizontal development! One possible lead is *Alpine Chough Pot* which yielded some passages with undescended pits.

Cueva de Mostajo — Juan Corrin



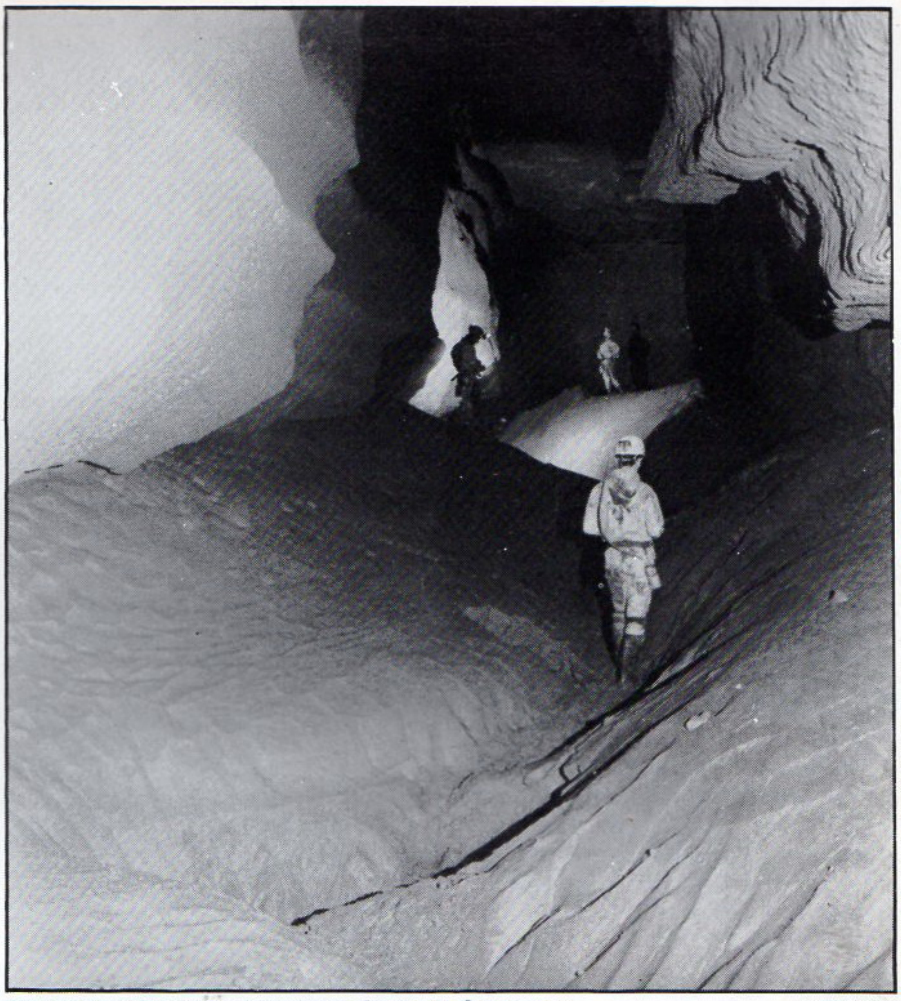
Codisera, a very old and large cave perched at the southern end of the depression yielded a number of 95m shafts which did little but keep a team occupied for a number of days.

Also on the hill to the south of Vega, *Torca de Azpilicueta* devoured a team for some days. A series of extremely muddy pitches found in 1987 were re-explored but no further progress was made amongst the slime and calcite belay points. A case for bringing back ladders.

Technology

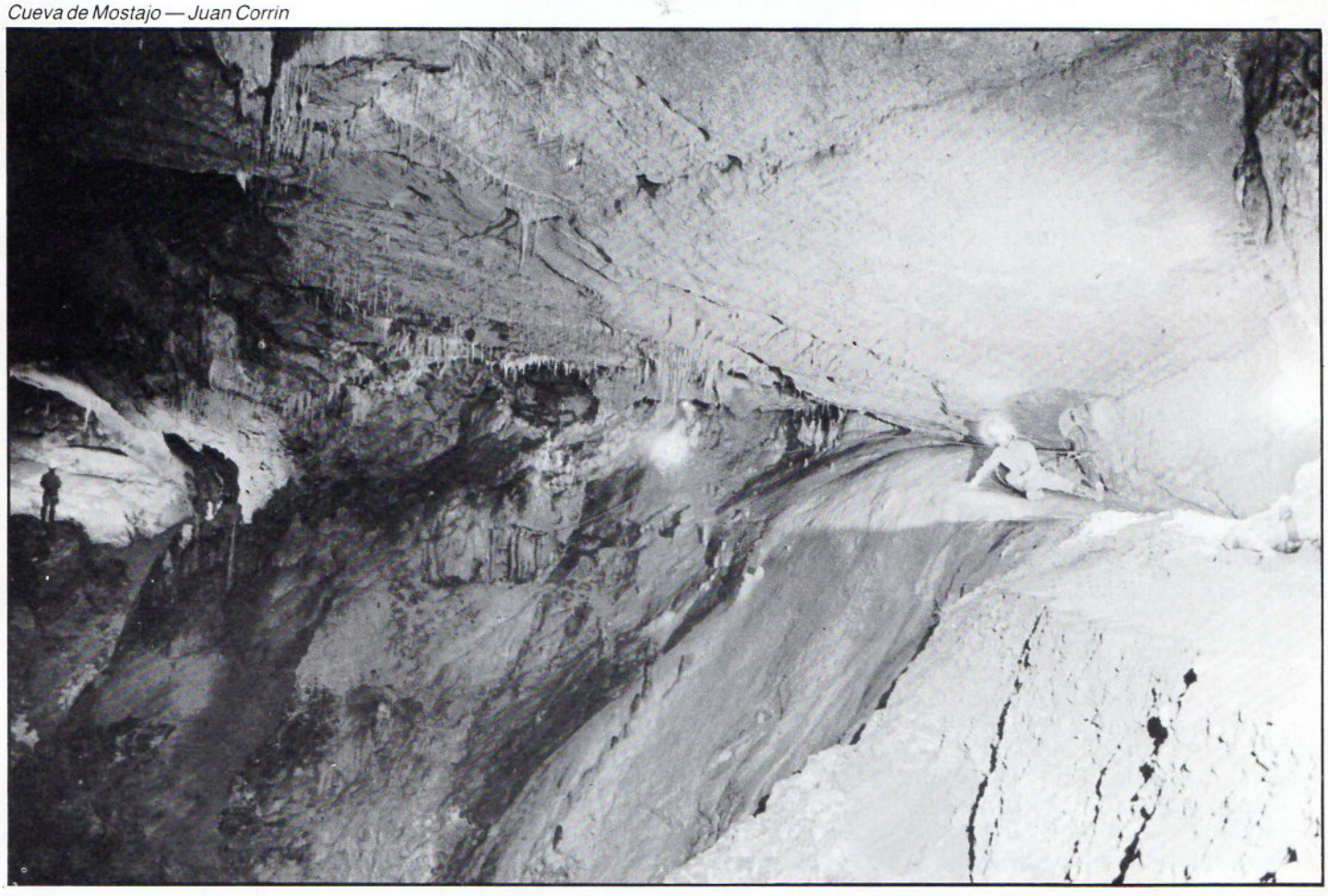
We had hoped to spend much more time 'shaft bashing' but the tools we invested in were not up to the job. A pair of Black & Decker hammer drills were used to drill holes for 8mm stud anchors. The equipment was no match for the Cretaceous limestone and the rechargeable battery packs only managed 3 holes at best. The 1989 expedition will try Bosch drills and use 6mm studs for aven climbing.

Because of using more than one type of self-drilling anchor a problem which emerged was the cones from different manufacturers not snugly fitting all drills. By mixing parts the resultant anchor would stand proud or be less well held — neither condition was satisfactory and could be dangerous.



The Western Series Gobsmacker in Cueva de Carcavuezo *Andy Hall*

Cueva de Mostajo — Juan Corrin



Shaft dropping was facilitated by using CBs and we now have an indication of the local range of the equipment around the rim of the depression. Numbered, plastic, 21p ear tags for cows were used for the first time as an alternative shaft marker. They may provide an answer to relocating holes in a landscape where accurate map reading can be difficult.

Molephones, or rather BURPs (Bolton Underground Radio Phones), were used to good effect. Survey points and underground/surface communication was established in the new passages of both Toad in the Hole and Carcavuezo.

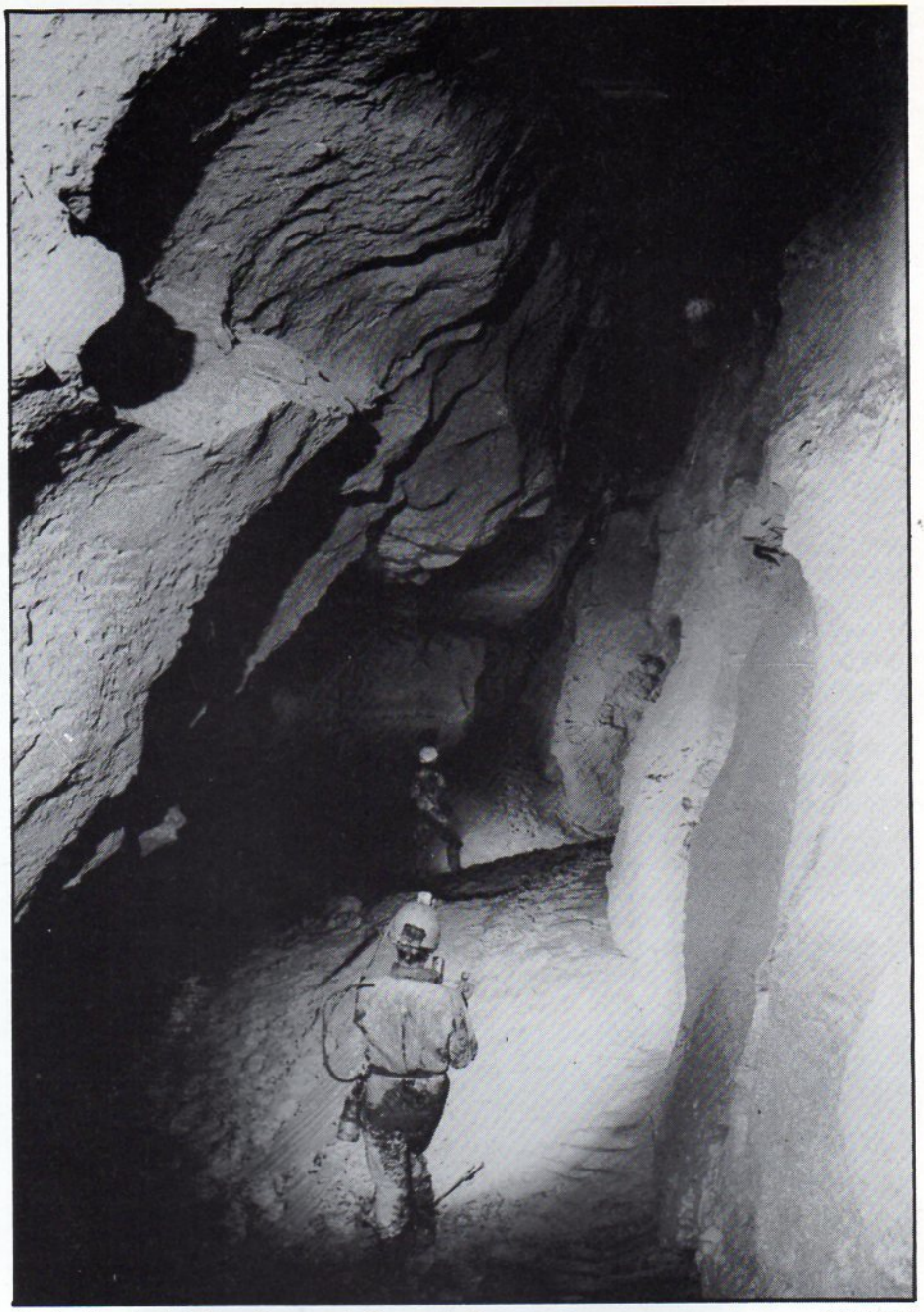
Computer facilities were used in the bar to convert survey data to x, y and z co-ordinates and to plot out the line plan and elevations. A hard copy would normally be available within a couple of hours of emerging and could encourage (or discourage) further trips the following day.

The scientific suppliers, Philip Harris, lent data logging equipment worth nearly £2000. This was used to monitor temperature, rainfall and stream level and to assess its potential for more extensive use.

Future

Apart from underground and overground exploration to the west of Carcavuezo and within Volvo to build on the 1988 discoveries, higher levels within the Four Valleys System have yet to be entered and explored to any great extent. The 2km long Trident Passages in Uzueka are the longest length above base level and they give some indication that there is much more to be explored around this altitude. Serious consideration has also to be given to possible Mustajo, Carcavuezo, Uzueka, Suviejo links which would open up the probability of a system 100km or more in length.

Toad in the Hole is another magnet for exploration and will require a number of long trips to unravel the secrets at its western end.



The fault controlled Barn Passage in Cueva de Carcavuezo *Andy Hall*

Setting up data logging equipment above the water resurging in Cueva Comediante *Juan Corrin*

Conclusions

One of the major problems with a long term series of expeditions (Matienzo has been running for nearly 20 years) is that all kinds of people visit the area during the summer for all sorts of reasons! This can lead to resentment amongst the 'older hands', the newcomers need some guided tours of the caves before any serious exploration can be started. There is obviously much work to do in and around the depression but the discoveries are only

Matienzo is one of a long term series of expeditions, and as such, has been running for nearly 20 years.

going to proceed at a satisfactory pace if cavers integrate and commit themselves to the area (or a system) over a number of years. What are NOT needed are cavers who 'milk' the area without putting anything back into the exploration, survey drawing, and writing program.

Finally, our thanks must go to the authorities and the villagers who allow us access and offer hospitality during the six week invasion.

Cueva de Mostajo — Juan Corrin

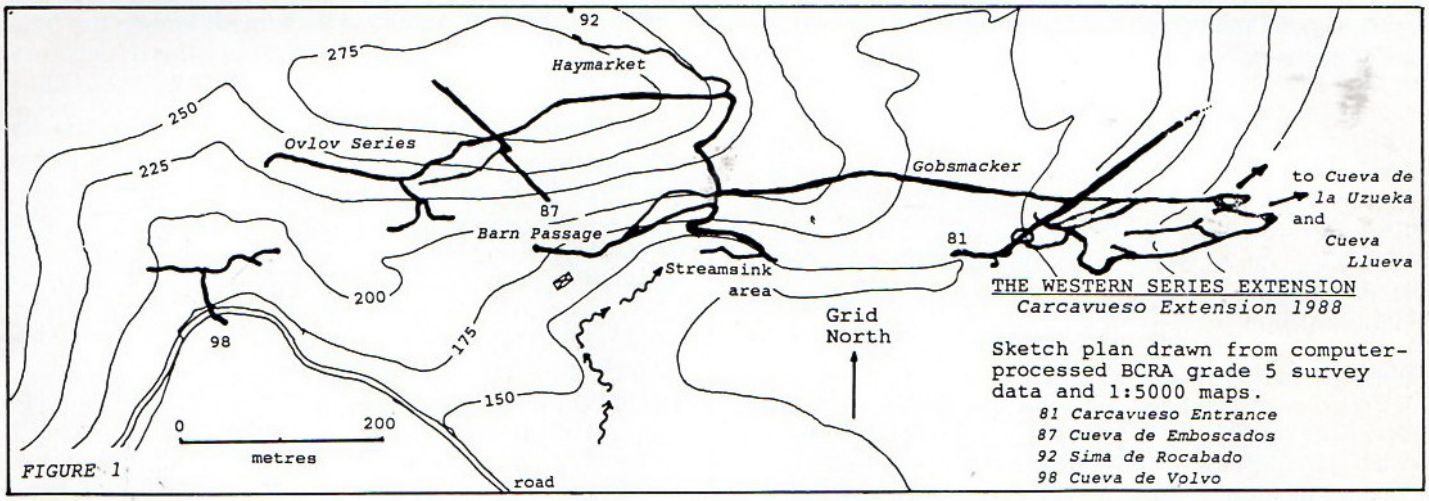


FIGURE 1

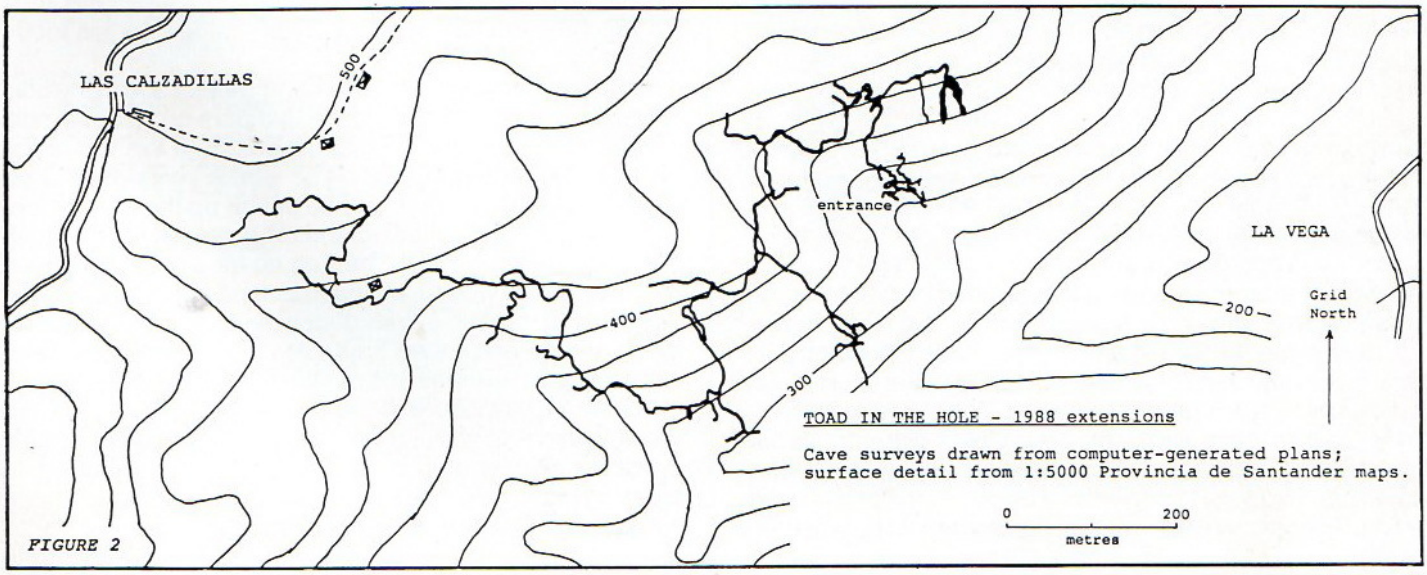


FIGURE 2

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