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TRANSACTIONS

BRITISH CAVE RESEARCH ASSOCIATION

Volume 8

Number 2

June 1981



Cueva de Cellarón, Secadura

Matienzo

BRITISH CAVE RESEARCH ASSOCIATION

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All material should be accompanied by an abstract stating the essential results of the investigation for use by abstracting, library and other services.

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Speleological expeditions have a moral obligation to produce reports (contractual in the cases of recipients of awards from the Ghar Parau Foundation). These should be concise and cover the results of the expedition as soon as possible after the return from overseas, so that later expeditions are informed for their planning. Personal anecdotes should be kept to a minimum, but useful advice such as location of food supplies, medical services etc., should be included.

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MATIENZO, SPAIN

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MATIENZO UNDERGROUND

Compiled by J.S. Corrin and P. Smith

ABSTRACT

A cavers guide to the caves and potholes in and around the Matienzo region of Santander, Northern Spain. Over 240 sites are described, giving grid reference, altitude, depth and/or length and a reference to where further information can be found.

NOTES: The numbers after the cave names are those plotted on the Matienzo Area map (to be found in 'Geomorphology of the Matienzo Caves' in this Transactions). Some of the caves lie outside the area covered by the map. These are marked with an asterisk (*).

(i) The grid references were obtained from the following maps:

- (a) Villacarriedo 1953 Scale 1:50000 Contours at 20m intervals.
- (b) Santander 1975 Scale 1:50000 Contours at 20m intervals.
- (c) Sheets VIII-30, VIII-31, VIII-32, IX-30, IX-31, IX-32, X-31, and X-32 from the ariel survey of Santander 1976. Scale 1:50000 Contours at 5m intervals.

(ii) Where entrance positions are accurately known, then an eight figure grid reference accurate to 10m is given. Altitudes are then accurate to 2m. Where the 1:50000 maps had to be used, a six figure grid reference is given accurate to 100m. Altitudes are then accurate to about 20m.

ACKNOWLEDGMENTS

Many of these descriptions have been condensed from those found in the Journals mentioned in the bibliography. We wish to acknowledge the hard work of the authors of these articles, and also express our appreciation of the cavers who originally wrote cave descriptions into the expedition Log Books.

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- H Addis, F., Corrin, J., Davies, B., Fifield, A., Smith, P., 1979, The 1979 British Expedition to Matienzo, Santander, N. Spain, 10 pp.
- P Corrin, J., 1981 Matienzo 1980, *Jour. Manch Univ. Speleo Soc.* No. 10 (in press)

The subscript 's' denotes the inclusion of a survey as well as a description.

Cueva de A.B.I. (No. 58) Enaso.

VN51289682 Alt. 478m Length 50m

The initial, strongly draughting squeeze leads into a large, steeply descending, boulder floored chamber. Ref. C.

Cueva del Abono (No. 33) Beralta.

VN507948 Alt. approx. 500m Length 120m Depth 30m

Walk-in entrance to a 16m: pitch. Gour floored chamber at base leads immediately to greasy calcite slope where ladder is useful. Ends at a chamber with avens. Ref. A F

Cuevas de los Adillos (No. 34) Beralta.

VN515951 Alt. approx. 450m Length 20m

First cave is choked with clay, the second is unexplored beyond the first few metres. Ref. As.

Cueva del Agua (No. 59) Enaso.

VN51619622 Alt. 165m Length 1900m Depth 12m Fig. 6

The sink for La Vega river. Large, impressive entrance at end of stream bed leads to large, rock-strewn chamber at the end of which the water is met. The remainder of the main line cave is sporting stream passage - a mixture of wading, clambering and swimming. The large sump pool at the end of the passage has been dived through to La Cuevona, the resurgence.

On the left of the first lake, 200m from the entrance, is a strongly draughting inlet which has been followed for 600m until it becomes rather small.

Just upstream of the sump are two calcite ramps with fine coloured formations. (Plate 1, Fig.1; Plate 4, Fig.1). Refs. As Bs Cs Es.

Alpine Cough Pot (No. 99) Muela.

VN54049721 Alt. 578m Depth 70m

Single pitch leads to silted chamber.

Cueva del Anderal 1 (No. 8) Ozana.

VN54109501 Alt. 249m Length 80m Fig. 7

Roomy passage meets stream and soon becomes too low. Ref. As Cs

Cueva del Anderal 2 (No. 9) Ozana.

VN54029510 Alt. 240m Length 300m Fig. 7

Complex entrance leads to low crawl in liquid mud and, after 50m a junction at a pool. The way to the left enters varied passage ending at a draughtless low airspace. To the right the passage divides and chokes. Ref. As Cs.

Cueva del Anderal 3 (No. 10) Ozana.

VN54009512 Alt. 255m Length 150m Fig. 7

Directly above Anderal 2, the entrance leads to a junction. The right hand passage soon chokes while the left hand passage also chokes after passing over numerous blind pots. Ref. Cs.

Sima del Andrés (No. 80) Secada

VN52869678 Alt. 245m Depth 20m

Single choked shaft. Ref. As.

Cueva de Año (No. 151) Secada.

VN51629756 Alt. 175m Length 30m

Short choked cave.

Torca de Arnilla (No. 60) Enaso

VN500964 Alt. approx. 300m Depth 20m.

Choked shaft. Ref. C.

Cueva de Asiul (No. 61) Enaso

VN51899628 Alt. 248m Length 80m

Entrance is small and near to large limestone boulder. A well decorated passage ends at a flowstone blockage. Ref. As Cs.

Torca del Avellano (No. 55) Beralta*

VN500945 Alt. 460m approx. Length 100m Depth 43m

Five metre ladder climb leads to steeply sloping rubble heap. A 7.6m pitch follows and a steeply inclined bedding passage leads to a 7.3m pitch. Passage then lowers to a strongly draughting 4cm airspace over water. Ref. Hs.

Cueva del Arenal (No. 35) La Vega*

VN492950 Alt. approx. 200m Length 200m

There are three entrances below a cliff face. The outer two holes soon choke. The middle entrance emits a strong draught from its sizeable ellipse. Cave ends at solid, draughting boulder choke with much potential. Ref. A C.

Torca de las Averbis (No. 108) Muela

VN57559514 Alt. 460m Depth 80m

Single shaft. Entrance has a tree growing across the top.

Ref. Grupo Espeleológico 'Torca', Loredó.

Torca de la Babosa (No. 62) Secada

VN51099798 Alt. 320m Depth 20m

A single tight, slimy shaft which is choked with calcite. Ref. C.

Cueva de Basura (No. 100) Riano

VP51540049 Alt. 157m Length 180m

Entrance slope is a pile of festering rubbish. This leads to two circular halls, one contains a 7m blind pot. Routes become too low after splitting into two parallel passages. Ref. Ds.

Torca de Beralta (No. 51) Beralta*

VN520944 Alt. 625m Depth 65m

Entrance in a shakehole on some level ground near the top of Beralta. A single shaft with a small amount of passage at the bottom.

Torca de Bosmartin (No. 63) Enaso

VN50329787 Alt. 512m Depth 25m

Entrance pitch of 13m lands on boulder slope which leads to 8m pitch which chokes, as does a 6m alternative pitch to the right. Ref. C.

Los Boyonnes (No. 117) Secadura

VN55859955 Alt. 50m Length 100m

Resurgence for the water found in the caves of Uzueka, Carcaveuso and Lluvea.

Cave is 5m above the main resurgence and emits a strong draught. A 5m pitch leads to a hole down into the boulder choke. Draught can then be followed through the boulders to the river at the base of a steep mud slope. Various climbs at the top of the slope close down and the draught is lost. Ref. F.

Sima del Burro (No. 1) Ozana*

VN540943 Alt. 335m Depth 50m

Shaft with window into second shaft. Both choke at about the same level. Ref. As.

Torca de la Cabaña (No. 36) Beralta

VN502952 Alt. 420m approx. Depth 160m Length 500m

Holly trees surround the top of the roomy 27m entrance pitch. The landing is on a boulder slope which chokes at its base. Way on is through a slot on the right. Following the inward draught through tight passage leads to the constricted head of a 21m pitch. The third pitch of 7.5m follows immediately, as does the fourth pitch of 38m. Passage at the bottom stretches in both directions.

The East Wanders is reached by ascending a 10m wide sand-floored passage. A side passage descends to a series of partially collapsed phreatic tubes (which eventually join up with the pitch chamber) and a passage which leads to a large hall half full of house-sized blocks. Back in the main phreatic level a four ways junction is reached. The right hand passage soon closes down at a well decorated chamber and rift; straight ahead is a sandy crawl under stalactite grills to a well-decorated chamber after 100m; straight ahead is the main way on. This leads to a continuation of the large chamber mentioned before. Turning right here leads, via various boulder scrambles, to the final choke after 120m.

West Wanders starts from the base of the fourth pitch and traverses the same phreatic level as the East Wanders for 150m to a T junction. Both branches choke. There are a number of shafts along this level ranging from 15m to 70m in depth, some of which are unexplored. The deepest descended shaft is situated in sandy hollows to the right of the main bedding. These shafts could well connect with avens seen in Cubio de la Renada. Ref. Bs.

Sima de la Cabritilla (No. 37) Beralta

VN509952 Alt. 410m approx. Depth 25m

A 25m pitch to a series of incompletely explored phreatic passages. Ref. As.

Cueva de Calleja Rebollo (No. 38) Beralta*

VN491952 Alt. 250m Length 70m

A low entrance leads to a chamber and single fossil passage, passing under an open shaft. The cave was inhabited during the civil war.

La Cueva del Camino (No. 85) Secada

VN52859698 Alt. 240m Length 10m

Little more than a rock shelter, some 20m wide and 10m deep. Ref. As.

Sima del Cañado (No. 251) Muela

VN55209717 Alt. 420m.

An undescended shaft of about 30 to 50m depth.

Cueva de la Canal (No. 101) Riaño

VN52879914 Alt. 405m Length 235m

Entrance is resurgence at the head of the wooded valley behind Fuente las Varas Bar. The whole of the cave is stooping or crawling in water, and the 'end' is where the going becomes flat-out. This point could be near to the bottom of Fuente las Varas Pot.

Cueva de los Caracoles (No. 247) Secada

VN52379662 Alt. 170m Length 20m

The dug entrance at top of field leads to flat out bedding which becomes too low at a point which must be very close to the ramps in Cueva del Agua.

Cueva de Carcaveuso (No. 81) Secada

VN52879800 Alt. 147m Length 300m

All of the water in the Matienzo depression sinks in a mass of boulders. A dry stream bed beyond this leads to an area of draughting boulders, and this is the entrance to the cave. The first hundred metres is a complicated collapse zone with rifts above which eventually breaks out into the high rift river passage. More boulder chokes have to be passed before the sump pool is reached. This has been dived to a boulder choke and holes directly above the sump have been maypoled - there is a possible draughting continuation here. The water is next seen in upstream Cueva Llueva, over 800m away. Ref. Bs F P.

Cueva de Carrasquilla (No. 11) Ozana

VN53439608 Alt. 245m Length 30m

Low crawl which becomes too low. Winter resurgence. Ref. A.

Cueva de la Castañao (No. 102) Riaño

VP52500003 Alt. 207m Length 250m Depth 30m Fig. 4

A chestnut tree filled depression contains a number of entrances all of which unite at a 9m pitch. Thirty metres of walking leads to a climb of 7m and then varied going to a large chamber. From here an inlet can be followed for 60m to its end at two large avens. Downstream the passage closes in and ends at a strongly draughting, tight, muddy crawl. This could connect with the Gorilla Walk in Cueva Uzueka. Ref. Cs.

Torca de Cellarón (No. 109) Secadura

VN55239909 Alt. 282m Length 620m Depth 107m (cover photo)

Entrance is in a walled, wooded depression. A fine shaft of 47m lands on a festering heap of remains. To the east, the walking sized passage ends at a calcite choke after 100m. In the opposite direction, a gradually enlarging passage leads to a veranda looking down into a large chamber. Just back from here on the right a narrow, calcite-floored rift eventually closes down. On the left before the veranda, a large passage ascends over boulders to a steep calcite slope. At the top of this, a well decorated section has a 30m choked pitch through a window on the left hand wall, and a 15m choked pitch at its end.

The easiest way down into the blackness at the veranda is by stooping under the left hand wall to a boulder slope down to the right. The way on gradually enlarges until the passage attains a width of 50m. At this point a stream, cut into the sediment, sinks at a 15m choked shaft under the left hand wall. The main passage gradually ascends to a calcite choke after a further 180m. Water draining from the lower reaches of this cave must drop into the unexplored streamway on the far side of the downstream sump in Cueva Llueva. Ref. Fs P.

Cueva Chica (No. 83) Secada

VN532967 Alt. approx 450m

Short choked cave. Ref. A.

Cueva de la Chora (No. 113) Llueva*

VN59029966 Alt. 50m Length 40m

Entrance, closed with green, wooden door is in a small limestone face. First chamber contains passage on right which closes in. Excavations revealed remains dated to the Late Magdalenian Period. Ref. Echegary, Guinea and Begines, Excavaciones Arqueologicas en Espana, No. 26.

Sima de la Chova (No. 64) Enaso

VN521967 Alt. 350m approx. Depth 15m

Straight pitch to chamber. Ref. C.

Cueva de Churro (No. 118) Secadura

VN55700000 Alt. 65m Length 460m

Entrance is resurgence upstream of open air laundry area, pipe supplies water to a house. Stream passage ends at sump. Upper level passage also ends at a sump. Water comes from Torca de Simon. Ref. Fs

Sima de los Churros (No. 82) Secada

VN53369896 Alt. 395m Depth 27m

Straight pitch to possible draughting dig.

Cueva de Coberruyo (No. 138) Enaso

VN51539639 Alt. 300m Length 50m

Large cave entrance leads to goat shelter where it is difficult to leave daylight. Ref. Cs.

Cueva de Cobrantes (No. 110) San Miguel

VN57239662 Alt. 155m Length 472m

Entrance is situated at the head of a steep grassy field and is about 35m wide and 5m high. Very large passage for 200m leads to where a climb up greasy calcite stops at the head of a sloping 25m pitch. The easy way at the bottom leads to two grottoes. More interesting way is a greasy climb back up to the level of the head of the pitch where the passage continues. A couple more climbs over calcite give access to a boulder slope down and then a calcite climb up to the final wall. Passage may exist at the top but all attempts at climbing and maypoling have failed due to the fragile nature of the calcite.

Cave has probably served as a resurgence for the pots and caves of Muela. The water now resurges at Nacimiento, 100m below. Ref. A Fs H.

Cueva de la Codisera (No. 39) Ozana*

VN53379430 Alt. 450m Length 1500m

Large entrance leads into enormous vadose canyon. A ledge on the left after 200m provides access to a high level gallery running off on the right. This reduces in size until a 90m shaft is reached. At the base is a narrow streamway. An awkward traverse over the pitch leads to a continuation of the passage which soon chokes.

Back in the main passage, the floor slopes down to a 25m pitch which lands in another large level. The westerly direction chokes under the entrance series, the easterly direction passes into a draughting bedding and thence to a choke in a small streamway. Much potential remains. Refs. As C.

Cueva de Cofresnedo (No. 65) Enaso

VN52289637 Alt. 235m Length 275m

One large dry passage with plenty of calcite formations. Ends at a calcite slope which meets the roof. Refs. As Cs.

Cueva Collusa (No. 3) Ogarrio*

VN576939 Alt. 500m

Three bronze age swords were found in this small cave.

Ref. M. Almagre, La Espada de Entrambasaguas, XL Aniversario del Centro de Estudios Montaneses, Vol. 2-3, Santander 1977.

Cueva del Comediante (No. 40) La Vega

VN50799575 Alt. 170m Length 300m

The resurgence cave for much of the water sinking on Beralta. The streamway is soon left inside the entrance and the large passage eventually closes down and chokes a few metres from Reñada. The water is seen again in Reñada. Ref. As Bs.

Cueva del Concejo (No. 12) Ozana

VN54659532 Alt. 425m Length 80m

Large (15m x 8m) entrance soon diminishes to a 3m x 2m passage and then closes down. Ref. Cs.

Cueva de Coreano (No. 137) Secada

VN52899675 Alt. 260m Length 20m

Short crawl into small chamber with deep pool.

Cueva las Cosas (No. 84) Secada

VN53159748 Alt. 255m Length 70m

Small entrance leads to 60m diameter chamber. Ref. As Cs.

Cueva del Coveron (No. 2) Ozana*

VN54319378 Alt. 300m Length 2500m

A complicated cave of great variety, Entrance leads to large chamber. First sloping exit on the right provides access to a long series of phreatic domes.

The apparent end of Tree Gallery is bypassed by a squeeze at roof level.

Further squeezes lead to a continuation of the domes, a division of the ways and two chokes. Just back from the junction a rift descends to a three ways junction, one passage containing a long pool.

At the far end of the entrance chamber a rift on a rock slope provides entry to Nuts Passage, a series of tubes and phreatic chambers.

The main way on is down through a squeeze on the left of the entrance chamber. Large phreatic chambers soon close down to the right and straight ahead, while to the left a 5m climb leads to the head of a 20m pitch. At the base of the pitch is the complicated Mini Maze, the route on being a tight squeeze to walking passage which runs to the top of a 17m pitch. This drops straight into the vadose section of the cave. Upstream leads to a 4m climb and drop down over a barrier. The next obstacle is a 16m high climb over greasy calcite where, near the top pitons are useful. A 12m pitch back to the stream follows immediately. The passage then continues for 200m to a tortuous route in rotten rock until it becomes too tight.

Downstream the cave passes the odd obstacle in a mainly narrow streamway to end after a couple of hundred metres at a calcite choke. Ref. A Cs.

La Coverona (No. 112) Llueva

VN56459722 Alt. 265m Length 337m

Remnant of large fossil passage perched high above Llueva Valley. Thirty metre wide entrance slopes down to large boulder and calcite floored passage with some fine formations. A junction is met after 180m. To the left the passage ascends over boulders to a chamber, while to the right, greasy calcite descends to an old lake with false floor remains around the side. The passage then soon closes down in small phreatic tubes. Ref. Ps.

Torca de la Cruz de Llorada (No. 66) Enaso

VN50499811 Alt. 487m Depth 50m

Elliptical shaft with small hazel tree. Twenty metre shaft leads to boulder slope at the base of which is a small hole and the second pitch of 18m. Boulder floor slopes down to an easy dig. 'Upstream' quickly chokes. Ref. C.

Cueva de Cuatribu (No. 13) Ozana

VN55459503 Alt. 415m Length 230m

Entrance is well hidden by trees. The passage starts as a 9m high and 4m wide jog, but stalagmite columns and gours slow down progress. Passage then develops into a high rift and ends at a blind 6m pot after passing some fine helictites. Ref. As Cs.

Cubio de Cubija (No. 243) Enaso

VN50189701 Alt. 268m Length 50m Depth 15m

The entrance is a sink behind the house. A couple of rope climbs and crawling leads to a draughting unpushed tight passage.

Torcon de Cubija (No. 67) Enaso

VN50309678 Alt. 260m Length 400m

The small entrance is in a large, steep sided shakehole, which acts as a wet weather stream sink. Fairly small passage to a 4m climb down and then a squeeze into 100m of alternating walking and crawling. After an oxbow the passage enlarges and a route to the right ends in a muddy choke after 50m. The other direction leads to a chamber which carries a stream in wet weather. The stream bed can be followed to a small tube at the far end of the chamber. Dangerous climbs above this tube lead to 70m of passage which close down in a heavily pocketed area where the draught is lost. Ref. Cs Es.

Sima del Cueto (No. 41) Beralta*

VN494936 Alt. 700m Depth 150m

Large single shaft which is choked at the bottom. It could possibly drain to Cubio de la Reñada.

Cueva 77 A (No. 154) Secadura

VN55779957 Alt. 53m Length 40m

To the right of the main rising, the cave emits a good draught, although this is lost in the dank, dismal passages above deep water.

La Cueva (No. 248) Secada

VN52429667 Alt. 153m Length 87m Fig. 6

The resurgence for Cueva del Agua. The sump is an easy dive and at no point is deeper than 10m. Ref. A Bs Cs Es.

La Cueveca (No. 177) Beralta

VN517956 Alt. 250m Length 150m

A small entrance just above Cueva del Haya leads to slope down into chamber containing a tight squeeze into a well decorated chamber. On the right parallel passages quickly choke.

La Cuvia (No. 86) Secada

VN53229800 Alt. 193m Length 200m

Steps lead down into the cave which contains two water troughs in its entrance. A climb down on the right of the chamber leads to a choke, while the obvious way on leads after 20m to a junction. The passage to the right closes down after 24m. The main passage continues through a crawl to a well decorated chamber and a pitch of 13m. At the base of this is a large chamber and a superb 7m high column. The cave then becomes small after passing through three chambers and ends at a choke of boulders. The cave could once have drained the Matienzo depression. Ref. Cs.

Cueva de Dofrades (No. 42) Enaso

VN508955 Alt. 300m approx. Length 320m

The entrance is a scalloped, phreatically enlarged rift which slopes steeply downwards. After 20m a 10m pitch drops into a roomy chamber. A squeeze through at floor level leads to a 5m pitch. To the right is a greasy climb to a draughting choke but at the bottom of the pitch the passage continues walking sized with several levels that unite in a sandy chamber, extensively pocketed. The way on leads after 50m to a 15m diameter chamber with a deep pool. A squeeze at floor level under an incredibly scalloped wall gives access to a traverse to the cave's second entrance at a lower level than the first. Ref. Hs.

Cueva de los Emboscados (No. 87) Secada

VN52509805 Alt. 220m Length 180m

Entrance is at the head of a steep wooded slope under a rock shelter. Goats are kept out of the cave by rocks which have to be removed to reveal a small draughting hole that leads into a fine 12m wide passage. The calcite slope levels out at a blind pit in the floor and then zig-zags to a gentle ascent to a draughting boulder choke. Emboscados could well have drained the Matienzo depression in the past. (Photographs: Plates 6 & 7). Ref. As Cs H P.

Sima de Escajadillo (No. 88) Secada

VN522985 Alt. 370m approx. Depth 18m

Straight shaft to grotto. Ref. As

Cueva del Escarabajo (No. 43) Beralta*

VN511941 Alt. 650m approx. Depth 50m

A 15m walk leads to a 20m calcite slope where ladder is required. Landing is on a large ledge. A 10m pitch then lands on another calcite slope which ends at a calcite choke. The alternate way down from the ledge also chokes. Ref. A.

Cueva de la Espada (No. 103) Riaño

VP512009 Alt. 120m approx. Length 600m.

A stream passage through trip. Twin top entrances unite in the streamway. Passage chokes 90m upstream while downstream the water occasionally disappears under the right hand wall until about 180m from the entrance, the stream's route chokes. The way on is a climb of 4m up a cross joint and then a 4m climb down into deep water. This can be left immediately to join walking-sized, dry passage. Two sandy inlets on the right choke and the main passage continues increasing in size until a climb over boulders and a sandy ramp is reached. This sandy passage on the right ends at an upwards boulder choke. The streamway now becomes more aqueous, passing two short inlets on the left and then encountering a large boulder choke. A couple of squeezes and then a canal is reached which joins a higher sandy level after 20m. The left way soon chokes but the right hand route reaches daylight after 50m. Ref. Cs.

Torca de la Espina (No. 128) Muela.

VN54199693 Alt. 615m Depth 76m

A 29m pitch lands in a large chamber which then descends over mud and calcite to a choke. Ref. Ps.

Sima Fiesta (No 68) Enaso

VN51759697 Alt. 355m Depth 25m

A straight shaft into a choked, 20m diameter chamber. Ref. Cs.

Cueva de Fresnedo (No. 126) Fresnedo

VP532015 Alt. 140m approx. Length 300m

Bottom entrance is at end of dry stream bed. Top entrance is in a brambly shakehole 20m behind. Both entrances draught out strongly. Cave is basically developed on two levels - the lower stream level soon degenerates into a two dimensional maze of cobbled crawls. Twenty five metres inside the bottom entrance a crawl off to the left unites with the higher level. Emerging up through a rift, the top entrance (a 7m pitch) is 5m to the left. To the right various shuffles and crawls lead to a large chamber with three exits. All routes appear as a maze and connections can be made with the lower series.

A frustrating cave, as its position and draught indicate a large amount of unexplored passage. Refs. H Ps.

Fuente de la Cuvia (No. 207) Riaño

VN51459987 Alt. 190m Length 735m

Draughting entrance is above the resurgence and is a tight squeeze downwards into a low streamway. Crawling soon gives way to walking in a small vadose stream passage, and, by keeping to the right, a largish chamber is reached 80m from the entrance. Just back from here on the left, is the passage that carries the draught. This has been followed in a lowering streamway for about 200m until a calcite blockage stops progress.

Two routes are possible out of the main chamber. The right hand passage is walking and then a low crawl into a chamber; the left hand passage is lower and wider and contains some fine gour pools. This passage emerges in the roof of the chamber and it is possible to climb down. A couple of routes from here eventually combine in a cracked mud floor chamber which leads to 250m of walking and stooping in a well decorated passage. This ends at a low wide bedding. About 80m back from the end is a well decorated alcove containing a large number of goat skeletons beneath a blocked off surface shaft. (Photograph: Plate 8). Ref. Ps.

Cueva de Fuente las Varas (No. 104) Riaño

VN53009925 Alt. 440m Length 200m Depth 30m

Entrance is at the end of a drainage ditch, 1m from the road. The entrance crawl reaches a junction after 10m. Upstream to the right eventually becomes too low after 120m. The left hand passage, after various contortions at roof level, drops into a washed out shale band and then ends at the head of a 27m pitch. The landing is in a high, sandy-floored rift. Upstream narrows down, but downstream carries a draught which seems to disappear in a phreatic spongework. Water could feed Cueva Uzueka or it could be the water seen in Cueva de la Canal. Ref. F H.

Cubio de la Gatuna (No. 127) Hornedo

VN49789996 Alt. 146m Length 164m Depth 20m

The initial chamber leads to a series of loose cross jointed passages. A sandy crawl then leads to a length of nicely decorated passage which ends at two large chambers. There are holes between the boulders and one has been descended to 19m. Ref. Hs.

Cueva de Gonzalo (No. 14) Ozana

VN52869629 Alt. 180m Length 30m

A short resurgence cave that ends at a sump. Ref. As.

Cueva de los Grajos (No. 89) Secada

VN537974 Alt. 410m Length 40m

A single large chamber, some 15m high, with old, fossil formations.

La Grasial (No. 69) Enaso

Not known to any accuracy Alt. 300m? Depth 20m

Fifteen metre ladder pitch drops into a small chamber with a constricted 5m slit at the bottom. Ref. C.

Refugio de la Guerra (No. 15) Ozana

VN53429590 Alt. 200m Length 10m

Small shelter Ref. A.

Cueva del Haya (No. 178) Beralta

VN518956 Alt. 240m Length 40m

Entrance is by a small sink in field next to barn. Streamway eventually becomes too low.

Torca del Higuera (No. 222) Fresnedo

VP531015 Alt. 160m approx. Depth 10m.

Five metre pitch lands on boulders which slope down in a wide rift to a choke. A very tight hole at the base emits a strong draught. Ref. P.

Horses Head Cave (No. 194) Alisas*

VN482956 Alt. 520m approx. Length 30m Depth 10m

A rift at the side of the road necessitates a climb down onto rotting horse carcasses. A 6m pitch follows immediately. A traverse over a large block leads to the continuation of the passage which then doglegs round to the right and becomes very tight in a descending, draughting rift.

Simas de Hoyo de las Puchas (No. 44) Beralta

VN496951 Alt. 300m approx. Depth 15m and 22m

A large depression which contains both holes. First on S side, second on N. Both blocked.

Sima de los Hoyos (No. 72) Enaso

VN503966 Alt. 280m Depth 25m

Twenty three metre straight pitch lands on boulders. Down to the left enters a large, well decorated chamber while skirting boulders enters a low bedding into another large chamber. This contains a scree slope rising to the roof. To the right a low bedding becomes too low. Ref. C.

Cueva del Humo (No. 45) La Vega*

VN492953 Alt. 250m Length 45m

To the east of Cueva de Calleja Rebollo. Small entrance slopes down into chamber and squeeze into well decorated passage. Leads to base of an open shaft.

Torca de Jaime (No. 70) Enaso

VN51269684 Alt. 467m Depth 53m

The entrance pitch is of 8m followed immediately by one of 5m. A sloping rocky tube leads to the head of a 30m pitch which is followed by a 10m pitch landing in a small chamber with no way out. Ref. C.

Cueva de Jivero 1 (No. 16) Ozana

VN53739483 Alt. 260m Length 34m Fig. 7

Walking and wading to a sump. Choke above draughts strongly. Ref. As C.

Cueva de Jivero 2 (No. 17) Ozana

VN53739494 Alt. 265m Length 250m Fig. 7

A through trip. Bottom entrance immediately enters a superb phreatic tunnel containing the river. A sandy gallery on the right soon closes down. The streamway continues well decorated in places, to emerge at the twin openings of the upper entrance. Ref. As Cs.

Cueva de Jivero 3 (No. 18) Ozana

VN53839514 Alt. 255m Length 150m Fig. 7

Large entrance into which the water from Jivero 2 flows. Passage is a narrow rift which finishes at a deep water sump. Ref. Cs.

Cueva Llueva (No. 114) Llueva

VN54689839 Alt. 147m Length 2800m Depth 44m Fig. 8

The entrance is in an impressive depression, partly lined by overhanging limestone beds. An insignificant hole 3m up from the base of the depression gives access to 80m of sandy passage, the final section being a flat out crawl and then a squeeze through a blow hole to the head of a pitch. Three ladders are required although the vertical element of the pitch is only 10m.

The landing is on a sloping boulder pile. A climb upwards leads to an ascending and very greasy calcite ramp which closes down after 40m. A steep climb down the boulders leads to the river. Downstream the water enters a high phreatic maze which requires swimming or a dingy to pass. The length of this section is 100m and half way along it, on the left hand side, a similar phreatic passage leads back to the free flowing river just upstream of the boulder pile at the pitch. The downstream phreas stops at a boulder choke where a climb up to the right and through the boulders leads to a 'pop out' into a large passage. The river is then rejoined by walking down a boulder slope and then a pleasant stroll in a 10m high passage leads to a boulder pile after 200m. On the other side is the downstream sump which has been dived to a depth of 22m, the way on still being open.

Following the water upstream from the base of the pitch leads to 100m of swimming which halts at a boulder where it is possible to climb up to the high level passage. Entry to this passage is normally gained by ascending a rock pile to the left immediately after first meeting the water. At the top of the boulders a superb tunnel rises and falls over boulders for 300m until the final descent into the lake. A swim across to the right of the lake leads to an ascending boulder pile beyond which is a sandy crawl which closes down after 60m. On the left of this crawl is a climb up through boulders for 35m where a solid roof is met and no further rise possible.

80m back from the lake, a hole 5m up on the right hand wall can be reached by lassooing a boulder. A smallish sandy floored passage branches after 80m, the right hand branch leading to a 5m pitch onto the boulders at the right of the lake, the left hand branch leading to a 30m pitch into a large fault chamber.

The easiest way of reaching this chamber is by following the Left Hand Bypass. This starts as a slot down by the wall of the main high level passage, opposite the right hand wall hole. A mixed 200m of stooping, walking and climbing leads to a couple of inlets which cross the passage. By keeping to the left hand side and crawling under the wall a high boulder filled section on the fault can be entered, but by missing the crawl a veranda is reached with a view out into the main fault chamber. The left wall at this point has been climbed for about 50m but no obvious way on at the top exists.

The main fault chamber is reached by climbing down over boulders to the right of the veranda. A large phreatic tube on the right of the chamber pops out 10m

above the lake. The way to the river is down through the boulders in the chamber. The 200m of upstream passage is swimming in a large phreatic tube apart from 30m in the middle where the water rushes over a resistant band of rock and walking is necessary. The upstream sump has been dived for 30m to a bouldery chamber. The route on is through a very complicated boulder choke, the final secrets of which have yet to be revealed. The cave ends 170m from the boulder choke and stream at the end of Cueva Uzueka. (Plates 1 & 4). Ref. Ds F Hs Ps.

Cueva de la Loca 1 (No. 19) Ozana
VN54309495 Alt. 250m Length 100m Fig. 7

A stream resurgence. A wet crawl reaches a sump after 30m but a bypass can be entered 13m back on the right. The passage eventually becomes too low in the water. Ref. A Cs.

Cueva de la Loca 2 (No. 20) Ozana
VN54289498 Alt. 250m Length 900m Fig. 7

Entrance is above stream sink. A crawl to the left just inside the entrance leads to a streamway which descends with some traverses to a sump after some 250m.

By carrying straight on in the entrance, a maze of passages is entered which eventually reach a roomy gallery. To the left are a couple of short choked passages. 80m further on a sump is reached after some crawling. This sump is at the same altitude as the first and both are connected by a short, constricted passage. A round trip is therefore possible. Ref. As Cs.

Cueva de la Mantequilla (No. 90) Secada
VN52819705 Alt. 200m Length 15m
A single choked gallery. Ref. As.

Cueva del Mar (No. 4) Riba*
VN537166 Alt. 110m approx. Length 20m
Cave entrance is in the north bank of the Ason. It is best approached by swimming across from the south bank. Landing is on mud. A squeeze on the left enters a rift which leads to a second, higher entrance.

Sima de la Mortera (No. 21) Ozana
VN54049534 Alt. 225m Depth 17m
Straight shaft to a choked chamber. Entrance has now collapsed. Ref. As.

Cueva del Mortiro (No. 236) Secadura
VP557010 Alt. 280m approx. Length 80m
The entrance is in an impressive depression. Climb up a wall enters an ascending streamway with walking and stooping for 80m to a draughting easily dug boulder choke. Stream is used for a water supply. Ref. P.

Cueva del Mortiro (No. 5) Ozana*
VN54769332 Alt. 155m Length 770m
A through trip described from the bottom entrance. The first 200m in the water are the most awkward and after 300m a one metre long duck has to be negotiated. The passage then continues with wading in places until a boulder pile is reached. The surface can then be reached by a climb or by carrying on in the streamway for a few more metres. A wet and sporting cave. Ref. Cs.

Torca del Mostajo (No. 71) Enaso
VN50359699 Alt. 312m Depth 59m Length 325m
A 22m pitch drops onto a slope of boulders which leads immediately to a ropeclimb onto another boulder slope. Passage is now 7m square and to the left chokes after 50m. The gentle slope to the right reaches a short ladder or rope drop and then a steep slope descends to a pool. Partway down to the pool are a couple of routes down to another similar chamber. Ref. Fs.

Torca de Muela (No. 129) Muela
VN54579664 Alt. 793m Depth 58m
The entrance is 3m lower than the summit! A fine straight shaft lands in a pool. Ref. Ps.

Torca de Musa (No. 52) Beralta*
VN509933 Alt. 440m Depth 20m
A 10m entrance pitch leads to a large (60m x 30m) chamber with formations.

Torca de la Musquia (No. 22) Ozana
VN53769524 Alt. 265m Depth 18m
A clean washed shaft of 18m connects with an aven via a crawl. Ref. As C.

Nacimiento del Rio Clarin (No. 115) San Miguel

VN57929665 Alt. 55m Length 400m

This cave is the probable resurgence for much of the water that sinks on the Muela range. The entrance contains a still pool in the summer, the active resurgence being in the streambed to the south. In winter the cave is very forthcoming.

A 12m sump at the entrance leads to a 20m section of canal and the second sump of 2m. Scaling poles are then necessary to reach a number of different levels. The cave ends at two deep sumps. Ref. Cs.

Cueva Nonimportante (No. 156) Riaño

VN528992 Alt. 390m approx. Length 37m.

A wet resurgence cave that becomes too low.

Torca del Omoplato (No. 57) Beralta

VN488930 Alt. 400m approx. Depth 25m

A 7m drop is followed by a 12m pitch that lands in a choked chamber with a very tight continuation. Ref. H.

Cueva Oñite (No. 27) Ozana

VN54419511 Alt. 254m Length 8000m (incl. Risco and Tiva) Fig. 7

Entrance is a pitch of 6.5m that can be free climbed. This leads into the streamway or a few high level chambers can be reached. After a short crawl, water from a sumped passage on the right is met and for the next 500m the cave is a sporting vadose streamway. At the end is an 18.6m pitch into the final chamber of Sima-Cueva del Risco. On the left of the streamway, 30m before the pitch, a smallish passage leads into a large fossil gallery which soon chokes. Ref. A Bs Cs

Cueva de la Orilla Mijeo (No. 91) Secada

VN51659780 Alt. 195m Length 35m

Entrance at top of field with several chestnut trees leads into a long chamber sloping down to the left.

Cueva del Orillón (No. 23) Ozana

VN54359475 Alt. 275m Length 400m

The cave has three entrances and it is normally entered via the middle one as this requires no tackle. The passage degenerates into a low rift which soon meets a streamway that runs from west to east. Upstream leads to the Malbujero entrance while downstream, the passage is high with a couple of cascades until a large passage is met on the left. This leads to the base of the pitch from the third entrance. The remaining 250m of the cave is mainly walking. At the end the stream filters away through the floor, with a small amount of high level passage above. Ref. As Cs.

Cueva del Otero (No. 119) Secadura*

VP574003 Alt. 60 m Length 30m

At top of small wooded hill, entrance closed with gate. Excavated in 1963.

Remains dating from the Musterian to the Azilian Periods were discovered.

Ref. Echegaray, Guinea, and Begines, Excavaciones Arqueologicas en Espana No. 53.

Cueva del Patatal (No. 73) Enaso VN51659625 Alt. 225m Length 100m (Fig. 6)

Steep boulder slope for 30m leads to a 20m square passage with some 15m high formations. The cave ends at a calcite blockage. Ref. A Cs.

Cueva de las Perlas (No. 74) Enaso

VN51989634 Alt. 288m Length 20m

A very well decorated cave with an easy to miss, very small entrance. Ref. A Cs.

Peter Crawl (No. 240) San Miguel

VN57999653 Alt. 55m Length 20m

Short cave ending at a sumped bedding plane. Associated with Nacimiento del Rio Clarin.

Peter Plummet (No. 239) San Miguel

VN57989650 Alt. 60m Length 15m Depth 38m

Short cave ends at a boulder slope into deep water. Sump has been dived to a depth of 12m with an estimated 22m still to go. Ref. C P.

Simas del Picón (No. 75) Enaso

VN50129686 Alt. 300m Length 450m Depth 60m

There are three entrances, each being a pitch (26m, 20m, 20m). Boulder slope at bottom runs down to a choke at the deepest part of the pot. A climb up through boulders leads to a higher level running off in two directions. The easterly direction leads to a climb down onto the boulders at the entrance. The westerly

direction leads to a 30m diameter chamber, 75m of smaller passage, and then a similar chamber and two short choked passages. Ref. Es.

Cueva del Portón (No. 76) Enaso

VN513959 Alt. 200m approx. Length 40m
A single choked gallery. Ref. A.

Cueva del Prado (No. 54) Beralta

VN517948 Alt. 460m Length 40m

In wooded shakehole in middle of field. A boulder slope leads to chamber and passage on right, with possibly another high level passage unexplored.

Cueva de la Puerta (No. 24) Ozana

VN53639558 Alt. 215m Length 10m

Small entrance leads to climb down into small chamber with strong draught. Ref. A.

Cueva de Rascavieja (No. 77) Enaso

VN51799638 Alt. 300m Length 300m Fig. 6

Small (4m x 4m) entrance at the base of a cliff leads to a steep boulder slope and 30m wide passage. This closes down in a couple of strongly draughting boulder chokes. Refs. As Cs.

Torca del Rayo de Sol (No. 123) Secadura

VN54679990 Alt. 155m Length 730m Depth 52m

Entrance is at the left hand bank on a stream bed and is a 7m pitch with a tight take-off. Landing is in a 5m diameter chamber with a short crawl on the left leading to the head of a 15m pitch which lands in a hading fault passage. To the southwest, the passage descends three steps and enters an aven. Three metres up the left hand wall, a crawl goes off and branches. The left hand passage closes down while the right hand branch has not been pushed to the limit over cobbles.

To the northeast of the pitch the high and narrow passage heads down the fault for 90m until it breaks out into a lofty chamber. Holes above here connect with Solviejo. On the right of the chamber a low crawl leads into a seemingly endless series of dusty phreatic chambers joined by low crawls. Ref. Ds Fs.

Sima de Reguilon (No. 46) Beralta*

VN489945 Alt. 440m approx. Depth 70m

A single choked shaft. Ref. As.

Sima de los Rellanos (No. 47) Beralta

VN50389550 Alt. 290m Depth 120m

Three entrances: highest entrance is a 9m pitch the base of which can be reached by entering the middle hole and climbing down 3m. A steep slope leads down to a window into the main pitch which descends about 30m to a slope of unstable boulders and then a drop of 60m to a rubble floor in a large chamber. The third and lowest entrance leads directly to the unstable slope via a sloping pitch of about 40m. Ref. Es.

Cueva -Cubio de la Reñada (No. 48) La Vega

VN50459577 Alt. 180m Length 6120m Fig. 5

A strongly draughting entrance in the trees leads, via old phreatic walking passages to a junction. Straight on ends very close to Comediente while to the right a passage slopes down to the base of a steep boulder slope, at the top of which is the second entrance. Down to the right of the boulder slope is a periodic lake and just beyond, the blowhole. A complex series of muddy calcite climbs then lead to a pitch of 5m and almost immediately the second pitch of 8m and the sloping third pitch of 15m. At the base a low wet, strongly draughting crawl (which sumps in wet weather) enlarges as it reaches a boulder slope. By keeping to the right at the top of the slope Stuffed Monk Gallery is entered.

This is a 300m long and very well decorated gallery which finishes at a red earth choke. Numerous side passages end at chokes or high avens.

Near the start of Stuffed Monk Passage, on the left, a large passage runs into the top of Blood Alley. To the left is a veritable maze of sand and calcite-floored passages. To the right, up Blood Alley, is the main way on and the whole of this section is endowed with fine red and orange pool formations. One hundred metres after joining Blood Alley the passage splits - the right hand branch enters Anastamosis Hall with its deep phreatic pocketing and fine helictites and the left branches unite in False Floor chamber where a thin layer of calcite can give way under foot. A short distance beyond this chamber, a crawl on the left is the start of Squirrel's Passage which joins the main stream after a 6m climb down. Upstream a sump is met after 20m, while downstream the passage continues as a series of swims and cascades to a sump after a couple of hundred metres.

The main route continues over holes in the floor to Castle Hall. A delicate climb down over boulders leads after a small streamway to a huge sloping rift. Large passage at the head of the ramp and the smaller Gallery of the Dead to the

left unite at Ghost Lake. Sixty metres of wading or swimming lead to Mega Hall - a large boulder floored chamber and thence, straightforwardly to the main, large river passage which ends at a sump after 120m.

The sump descends to 8m and is 30m long. It rises in a large, boulder-strewn streamway. To the right is the massive run in of Giga Hall followed by 200m of large vadose canyon. The stream emerges from a passage on the left which sumps after 60m. A high level series can be entered on the same line as the vadose trench, although this eventually chokes after branching.

Reñada is the 'master cave' of the southern side of Beralta and as such still has much to offer in the way of extension, especially in Reñada 2 beyond the first sump. (Plates 7 & 8). Ref. As Bs Cs P.

Cueva de Riaño (No. 105) Riaño

VP51910044 Alt. 175m Length 3200m

The strongly draughting entrance is in a tree-filled depression. Low crawling for 50m meets a small inlet on the right. The way on gradually enlarges until, 250m from the entrance, a 7m pitch is reached. This can be free climbed. The main stream is then met and the passage size increases.

Upstream the passage continues for 200m until an inlet is met on the right. At least 1km of maze passage has been explored up this inlet and surface debris at the end indicates its closeness to another possible entrance. Back in the main passage there is a choice of ways but after 150m they unite in an area of breakdown. Soon afterwards the cave turns sharp right and splits into a bewildering maze of 2m high and 1m wide passages which have not been fully explored.

Downstream from the entrance inlet the passage is 2m wide and 4m high and runs for 100m until cascades of 2m, 3m and 4.3m are met. At the base of the last pitch the stream runs off to the right and the passage lowers to a crawl. After 200m of easy going, another pitch of 8m is met with an awkward crawl at the bottom. The cave sumps 200m from this point and is then 500m from its resurgence near to Cueva Espada. Ref. Bs.

Torcon de Riaño (No. 106) Riano

VN52289945 Alt. 265m Depth 95m Length 120m

Large walk-in rift entrance slope meets trickle of water from a pipe which flows down the pitch. First drop of 3m is followed immediately by the main pitch of 91.5m. At the base, a narrow vadose streamway sumps after 100m. This is about 50m from the upstream sump in 4th River Inlet in Cueva Uzueka and they presumably connect. Ref. Cs.

Sima-Cueva del Risco (No. 25) Ozana

VN53309604 Alt. 196m Length 8000m incl. Onite and Tiva. Fig. 7; Plate 7

The entrance is situated behind a group of houses at Sedo. The 8m pitch drops onto a rubbish pile containing assorted redundant drugs - the doctor lives nearby. At the base of the pitch two ways are possible. Following the stream down leads to the Tiva system (q.v.), while a 2m climb in the opposite direction leads into the entrance series of Risco.

After 100m of large passage the stream is met and wading in 1m deep pools is needed. To the left are two high level passages both of which choke after about 100m. Straight ahead the streamway continues high and wide to a junction with a passage on the right. This leads to several dismal chambers and no way is possible. The main streamway continues on through deep pools and mudbanks until the Tonto Series is met on the right. This uninviting, low passage splits after 200m and then chokes. The main passage runs for 100m beyond the Tonto Inlet before reaching the most important junction in the cave.

At this junction the right hand, narrow and very wet passage can be followed up to the superb Pinto Gallery. This vadose passage contains a large stream and can be followed for almost 2km until it splits into the various feeder inlets which have their origins in the Jivero/Tali/Anderal complex of caves. Although there is much evidence of surface debris, as yet no surface connection has been made.

Back at the main junction it is possible to climb up straight ahead into a large boulder chamber. From here two routes are possible. The fine Arco Gallery goes off at high level and is typically 3 - 5m wide and 15m high. This runs for 400m until it breaks out into the roof of the Risco River Gallery and progress is halted. In fact the Arco Gallery is the old abandoned route and the present stream has cut down to a lower level. This can be joined from the boulder slope at the start of the Arco Gallery and is easy going except for the occasional climb over boulder piles.

The Risco River Gallery continues for approximately 1km until it emerges into the impressive Sala Carballo which is a large boulder filled chamber. The main inlet tumbles down from high up on one wall and this is the 19m pitch down from Cueva Onite.

On the opposite side of the Sala Carballo, a large dry passage (Gran Risco) heads off above the main river and probably originally connected with the Arco Gallery. After 300m it becomes choked with calcite deposits. Ref. As Bs Cs.

Sima de la Roca (No. 53) Beralta

VN521950 Alt. 440m Depth 40m

By a prominent rock next to track. 15m pitch lands on slope to head of the second 15m pitch. This is choked with flowstone.

Sima de Rocabado (No. 92) Secada

VN52589822 Alt. 240m Depth 76m

The entrance pitch is of 8m metres in a shakehole. A climb and crawl up through a window on the right leads to head of the second pitch. This is 70m deep and is choked at the bottom with silt and cobbles. There is a strong inwards draught that becomes lost on the descent. Ref. Cs.

Salamander Pot (No. 56) Beralta

VN500947 Alt. 380m Length 50m Depth 10m

Two pitches of 5 and 3m lead to a slope of boulders and a squeeze through to a walking sized passage that is soon halted at a boulder choke. Ref. H.

Cueva del Selvijo (No. 28) Ozana

VN54209482 Alt. 267 m Length 100m

An uninspiring wet cave. Ref. As Cs.

Torca del Serruco (No. 50) Beralta

VN506950 Alt. 480m Depth 55m

Large entrance chamber is hidden behind large limestone block at base of small cliff. The floor slopes away to the head of the choked pitch. Ref. F.

Torca de Serramiania (No. 6) Ogarrio*

VN558939 Alt. 300m Depth unknown.

An undescended shaft. Probably between 30 and 50m deep.

Cueva Seta (No. 93) Secada

VN52889813 Alt. 168m Length 85m Depth 10m

Tight entrance slope leads immediately to a 9m pitch. The small, occasionally wet, streamway ends at a draughting but narrow and sand-choked rift on the left. There are possibilities of a connection with Carcaveuso or the passage beyond its sump. Ref. Cs. Entrance now obliterated by bulldozing.

Cueva de Sierra Salces (No. 234) Secadura

VP558007 Alt. 200m approx. Length 30m

The entrance stoop leads to a short sandy-floored passage which then rises on slippery calcite to a choke. Ref. Ps.

Cueva del Sifón Claro (No. 120) Secadura

VN55219983 Alt. 63m Length 60m

The presumed resurgence for the water seen in Solviejo. Low stoop into entrance chamber which contains the sump pool. A large sump passage that is infested with cross rifts. Possibilities of extension still exist. Ref. Fs.

Torca de Simón (No. 121) Secadura

VP55480044 Alt. 190m Length 330m Depth 69m

Entrance is a pitch of 11m. A stream enters from an unexplored passage 5m up the right hand wall. The water then pours down a blind 10m pot and the way on is over this to a small vadose passage which leads after 75m to a small climb and pitch of 6m. A small zig-zag passage then runs to the head of a 25m pitch. At the base, the passage slopes down to a tiny static sump. A hading rift from here ascends to an aven where it is possible to get a voice connection with the top of the 25m pitch.

A dry crawl under the north wall of the entrance chamber leads to a blind 10m pot.

By using a different belay point a second series of seemingly unconnected passage can be reached by penduluming on the ladder to a passage in the west wall of the chamber. A short passage ends at a fine 23m pitch which is followed by 40m of tight canyon to a 6m pitch. This leads almost immediately to a rather loose undescended 4m pitch. Ref. Fs.

Cueva de Solviejo (No. 122) Secadura

VP54860013 Alt. 185m Length 3400m(Incl. Rayo de Sol) Depth 111m

A sloping walk in entrance leads after 25m to the head of a 20m pitch from a ledge on the right. Landing is in a large chamber on a slope of boulders. Downhill, the floor levels out and chokes with some possible climbs above.

The way to the bottom of the pot is on the right of the top of the slope, and is down through a hole with a short greasy climb to the head of the Greasy Slope

Pitch. At the base of this 20m, laddered slope, the only exit leads to a lofty chamber via a couple of short climbs over boulders. The passage type then changes completely as it swings back on itself and heads towards the entrance for 150m. This rift passage ends at a 4m pitch and 7m climb into the sandy Campsite Chamber.

The main route then reverses direction again and passes underneath the previous rift to a 6m rope pitch. By heading North for 100m, the head of Pool Pitch is reached. This is an impressive circular 20m deep pitch with water falling in from the opposite side. The small outlet passage drops down a 4m pitch and then the final 20m pitch which ends the cave at a miserable and final sump.

Chocolate Crunch Series leads off in the southerly direction from the base of the rope pitch. The phreatic half tube gradually changes to the classical keyhole shape. Turning left at a junction after some 200m leads to some low crawls, while to the right, the top of a hading rift is reached which drops into Torca del Rayo de Sol via a 20m pitch.

Back at the Campsite, a short passage to the right leads to two high avens while straight ahead is a hading rift that ends at an aven. To the left is a large passage that divides after 100m with both branches soon choking.

At the head of the boulder slope in the entrance chamber there are three greasy calcite climbs. The right hand climb leads into Misty Passage - 200m of well decorated passage containing an 18m pitch followed by a 17m pitch into the chamber at the base of the Greasy Slope. The middle climb leads to a veranda that overlooks the same chamber, while the left hand climb leads to a completely different series.

At the top, an impressive tunnel leads to boulders which rise up to Brain Cell Hall which contains a large skitable pit. A few metres further, on the far side of the pit, is a climb down in the boulder chaos which leads to the base of the pit and a 180m long passage that contains three shafts which are presumably the avens seen off the Campsite. By continuing north west from Brain Cell Hall under a large, cracked roof slab, and past two small grottoes on the right, access is gained to Quick Trip Passage. This is mainly walking for 400m to the head of an 18m pitch which drops into a small stream that soon closes down. On the right of Quick Trip Passage it is possible to climb up to a parallel high level passage that contains some fine formations and cracked mud floors. (Plate 8, Fig.2). Ref. Fs.

Torca del Somo (No. 49) Beralta*
VN509940 Alt. 660m approx. Depth 77m

The entrance is a 15m pitch over some precariously poised boulders to a ledge. Pitches of 9 and 7m then follow immediately, landing on a scree slope which descends to a narrow passage on the right. After 15m and a couple of short climbs, the narrow and sharply fretted head of a 23m pitch is reached. A 10m deep hole from the final chamber chokes, as does a large rising boulder slope. Ref. Ds.

Cueva Subterránea (No. 29) Ozana
VN544957 Alt. 430m approx. Length 70m

Entrance leads down over gour pools to a well decorated, 30m long chamber. Ref. As Cs.

Surgencia de las Crecidas (No. 124) Secadura
VN55259972 Alt. 60m Length 150m

A 70m swim leads to sump of 20m. A short squeeze over a silt bank leads to a T junction. Downstream to the left is walking for 30m to a choke near to the surface. Upstream ends after 15m at a second sump which gets too low after 3m. This could be a flood rising for Los Boyonnes but could also be a flood resurgence for an unknown system. Ref. Anon. 1977. KCC Journal 9 pp.19-20 and survey.

Cueva de los Tablons (No. 242) Ozana
VN 530955 Alt. 200m approx. Length 30m approx.

Excavated hading rift with loose walls and roof but with a strong draught.

Cueva de Tali 1 (No. 30) Ozana
VN53829536 Alt. 234m Length 10m Fig. 7
Small stream sink. Ref. As C.

Cueva de Tali 2 (No. 31) Ozana
VN53929537 Alt. 235m Length 100m Fig. 7

Passage to the right of entrance chimney leads to drop into walking size passage and thence to a passage of pools and mudbanks. A short swim leads to a narrow canal with deep water and a sump. The other direction from the entrance involves crawls and squeezes to a chamber. Ref. As Cs.

Cueva de las Tejas (No. 163) Fresnedo
VP536013 Alt. 200m approx. Length 50m

Walking-sized resurgence cave that ends at a water logged rift. Ref. Ps.

Cueva de Tiva (No. 26) Ozana
VN52929620 Alt. 175m Length 8000m (incl. Risco and Onite). Fig. 7

The impressive twin entrances lead to a series of dry, abandoned passages that eventually unite, the way on being through a draughting bedding plane on the left. This passes under several avens before increasing in height at the top of a steep slope. This leads down to water level and, although the way on is sumped, a climb of 10m up a strongly draughting climb of 10m; to a chamber with sandstone walls. At the far end, a pitch of 11m drops into an impressive streamway carrying the water from Sima Cueva del Risco. The 1.5km of passage in this area are like a three dimensional maze and almost impossible to describe. Eventually though they all unite and the way on is in chest deep water up several cascades until daylight can be seen from the Torca del Sedo entrance. This is an 8m pitch and cannot be free climbed. Ref. As B Cs.

Cueva de los Tizones (No. 78) La Vega

VN51999612 Alt. 174m Length 125m

The entrance is a sink for a small stream. The route is at water level until a squeeze over a block leads to walking sized passage for 75m. A short duck with minimal airspace is followed by walking passage and a short wet crawl or alternative dry oxbow to deep water, where progress is stopped by a large block. The resurgence is 350m away but there is no draught. Ref. As Cs.

Cueva del Transformador (No. 32) Ozana

VN52859625 Alt. 160m Length 15m

The overflow resurgence for Sima-Cueva del Risco. Ref. C.

Cueva del Triangulo (No. 94) Secada

VN532967 Alt. 450m approx. Length 5m

A little higher than Cueva Chica at the base of limestone cliff. The entrance is triangular. The single passage chokes after a few metres. Ref. A.

Cueva de la Uzueka (No. 107) Riaño

VP51950002 Alt. 175m Length 12800m (Fig. 4)

A cave of great variety, potential and in places, complexity. All the water met in the cave drains to Cueva Lluvia and then resurges at Los Boyonnes in the valley of Secadura. If the route through the cave is known then a quick trip to the end and back will take about 9 hours. The route is known to sump in at least two places and so the cave should only be attempted in dry and settled weather. Route to the end: Three entrances are known. The one normally used is a couple of metres up a wooded slope at the bottom of a maize field. A constricted draughting entrance is followed at roof level by a short crawl into a small chamber. A descending passage to the right is the start of a maze where carbide arrows point back towards the entrance. This section ends at a tight sideways squeeze into Quadraphenia. The way on is to the right and this generally walking-sized passage lasts for 560m of superb sandy-floored tunnels. Large junctions from the squeeze are negotiated by four left hand turns until a final right hand turn leads to a low section into the stream in Pigs Trotters Chamber with its fine roof pendants. Crawling downstream for 40m leads to an inlet passage on the right where very low crawling over silt is needed to a small chamber. This section often needs digging out and sumps in wet weather. The way on is up to the left and consists of a series of phreatic chambers connected by low holes in the floor which can also sump in wet weather. Some nice zig-zag passage leads to a small boulder choke where the only way on is down into a low wet crawl that lasts for only a few metres. First River Inlet is then past on the left and the way enlarges. Boulder collapse necessitates leaving the stream but a very narrow slot behind a block drops back into the stream.

The next 1000m of passage - the Gorilla Walk - is generally stooping-sized passage with a metre or more of water to wade through. At the end a major junction is met. Second River Inlet comes in from the left while the way on is to the right. The route for the next 500m is obvious through the Near Stomps, a large stream passage, the way being mainly over large sand banks. Gour Inlet is passed on the left and 100m further on, Obvious Junction is met. The river is left behind as twin passages on the right soon unite at the start of Crossover Crawl. This is a generally low sandy passage which ends after 160m at a walk down into the Third River.

Carrying on downstream the next 540m are easy walking through Las Playas, the last 200m or so being on sand. The main route is then blocked but a small passage with deep water (the B Road) sets off on the right and the large main passage is soon rejoined on the other side of the collapse. One hundred and forty metres further on, Fourth River Inlet is passed and after another 100m of walking the Astradome junction is met on the left.

By continuing downstream, 44 Chamber is reached and then the streamway becomes small phreatic passage for 340m to Sandy Junction, where the stream left at Obvious Junction enters on the left. The way on is downstream to face a boulder choke and the entry to Armageddon.

Armageddon is a 260m long heap of boulders, the first 20m of which are negotiated by following road works bunting through the pile over drops into the stream below. By then striking out and up (generally to the east) a large passage - the entry to the Armageddon Bypass - is met and ignored and a climb to the east leads to a ladder pitch of 5m down through the precariously perched boulders to the stream. Armageddon is left behind and the water followed down into Paisley Passage, a 20m wide and 4m high bedding plane that terminates at Green Choke after 200m.

The way on is up over fallen slabs and scree to the left and all routes unite at the head of a roomy bedding plane - Giants Causeway. Walking down over large slabs leads to a pool and the stream. This is followed for 160m in a boulder floored streamway to where the water drops over a small cascade. For the next 150m, the water becomes deeper as Duckhams Sump is approached. The way on is along the right hand wall to a small rift and then out into deep water for 5m with a small amount of airspace until a hole in the roof is seen. This area sumps in wet weather. After climbing up through the hole, an awkward rift passage is pursued for 100m upstream until it is possible to climb up on the left into an area of sand and boulders. The passage then becomes increasingly larger until a descent is made to a high inlet on the right. This marks the start of Rocky Horror.

Route finding on this 200m long pile of immense blocks can take a couple of hours, although it is generally best to keep fairly high up on the right hand side. Passage walls eventually appear out of the gloom and the passage then gradually rises to the roof. The way on is a few metres back from this point on the right hand side and is a drop down into a comparatively small and well decorated passage that meets the stream after 80m.

A draught whistles out both at stream level and through a higher boulder choke but all routes appear to choke within about 170m of the upstream end of Cueva Lluva.

Other passages are now described by working through the cave from the main entrance.

By carrying straight on at the first dogleg in Quadraphenia, a second entrance is reached after passing through liquid mud. A small passage to the right just after this crawl leads to daylight above, although this pitch has not been descended or indeed found on the surface.

At the next junction in Quadraphenia, a right turn leads into 400m of smallish phreatic passage that can be followed to a number of branches, all of which choke.

Just before Pigs Trotters Chamber, on the left, two passages set off. The first chokes after 300m, the second swings back to Pigs Trotters Chamber. On the right hand wall of Pigs Trotters Chamber is 100m of mineret type passage that lead to Flashbulb Hall, a shattered area of massive block collapse. Carrying straight on through the hall leads to an unstable boulder area with deep holes in the floor. By traversing to the right a hundred metres of passage is entered that chokes. On the opposite wall to the point of entry, Dog Series starts and is a complex series of tubes and avens. By laddering one of the 11m deep holes an immature steam way is entered and also a small passage that pops out 4m up the wall in Quadraphenia.

By continuing upstream at the first wet crawl, walking sized passage is reached. The stream is left where it emerges from a low section and the higher level phreatic tube entered. Awkward progress is stopped at a 9m pitch that enters an immature stream that sumps 50m downstream and becomes too tight after 100m upstream.

Second River Inlet is 200m of mixed caving ending at a low crawl with powerful draught blowing out of the cave.

The next feeder is Gour Inlet which ends after 150m at a bouldery chamber. By continuing downstream at Obvious Junction, Far Stomps is entered. This large passage runs for 550m over large blocks to a sump - the water passing through to Sandy Junction.

Third River enters at the end of Crossover crawl and is 800m of fairly unpleasant passage. About 200m in a deep pool has to be negotiated followed by 300m of crawling and rift passage to where the water emerges from a sump. This point is about 50m from the down stream sump in Torcon de Riaño although a human connection is unlikely. The rest of this uninspiring section of the cave lies up on the right and ends at a couple of avens apparently over the top of the crawl traversed before.

Straw Inlet starts as walking passage but degenerates to a low crawl over mud.

Fourth River Inlet has yet to be pushed to a conclusion. Eighty metres further on downstream the insignificant entry to the Astradome is seen on the left hand wall. A short walk up and along breaks out into a magnificent circular aven. Single voices sound like cathedral choirs as they rebound off the walls of this 30m diameter and 101.6m high feature.

95 Inlet can be entered on the right of the main river just after passing through 44 Chamber. Fifty metres in, an elliptical tube in the roof can be

entered which leads to an increasingly muddy section of phreatic cave. The area appears flood-prone as a sump is bypassed via a muddy tube. The passage then slowly ascends to a 5m climb up to the boulders half way along Armageddon. This partial Armageddon Bypass is 500m long.

A small inlet on the right of Paisley Passage has been pushed for 250m to a large aven, while the final inlet of note is the one entered by keeping in the small streamway met above the hole at Duckhams sump. This passage - Shrimp Bone Inlet - has been explored for 700m and there is no real problem in continuing.

A number of passages both mentioned above and unmentioned have yet to be pushed. Also, there are about 2km of passages unsurveyed and not included in the length. (Plates 1,4,5,6,7). Ref. Bs Cs Ds F Hs Ps.

Sima de la Vaca (No. 95) Secada

VN53859828 Alt. 430m Depth 24m

Single shaft which is choked at the bottom.

Cueva Vecina (No. 96) Secada

VN52539806 Alt. 220m Length 20m Depth 20m

Short passage leads to a 20m shaft which draughts but is choked. Ref. Cs.

Covacho de la Vera (No. 97) Secada

VN530968 Alt. 340m approx. Length 5m

A small chamber 8m wide by 3m high. Ref. A.

Torca de la Vera Negra (No. 153) Beralta

VN500954 Alt. 300m

Undescended shaft of about 30m depth.

Cueva de Volvo (No. 98) Secada

VN52159793 Alt. 170m Length 225m

The cave acts as a resurgence and floods completely in wet weather. A descending rift leads to a mixture of walking and muddy crawling for 70m until a chamber is reached. By sliding down to the left, deepening water leads to a supposed sump although this has not been fully pushed. To the right, a tight squeeze at floor level on the left of the passage leads to a succession of muddy chambers. One impassible crawl at floor level in this section has a very strong draught.

Ref. As Cs.

Sima Wendy (No. 79) Enaso

VN50759723 Alt. 465m Depth 10m

The entrance shaft has a large rock bridge and is 10m deep. At the base is a squeeze into a well decorated chamber with no exit. Ref. C.

West Ozana Pots (No. 7) Ozana*

VN536943 - 542943 Alt. 380m approx. Depth up to 60m.

A series of five shafts. Four soon choke but the fifth is 60m deep and requires blasting as a larger passage at the base can be seen through a constriction.

Ref. C.

Torca de Yusa (No. 116) Muela

VN54679623 Alt. 720m Depth 140m

Entrance pitch of 110m leads to second of 35m. Choked at the bottom. Ref. C.

125 Secadura VN54859965 Alt. 174m Length 100m

Walk-in top entrance leads to climb down and short crawl underneath the entrance passage to emerge at a lower entrance.

130 Muela VN55649622 Alt. 554m

Unexplored shaft of about 20m depth.

131 Muela VN55509576 Alt. 698m

Unexplored shaft of about 30m depth.

132 Muela VN55409565 Alt. 696m

Unexplored cave.

133 Muela VN55369566 Alt. 713m

Unexplored shaft.

134 Muela VN55349567 Alt. 723m

Unexplored shaft.

- 135 Muela VN54689635 Alt. 725m Depth 20m
Single choked shaft. Marked 'PD12'.
- 139 Enaso VN51549686 Alt. 435m Depth 10m
Single choked shaft.
- 140 Enaso VN51489703 Alt. 388m Depth 15m
Single choked shaft.
- 141 Enaso VN51279730 Alt. 370m Depth 14m
Entrance pitch leads to two slippery chambers. Ref. Ps.
- 142 Secada VN51279768 Alt. 280m Depth 22m
A short squeeze into a draughting entrance leads to head of pitch. The belay is 2m down a tight rift and pitch is 19m deep landing on a roomy ledge. A 3m climb down enters enlargement that chokes in both directions, the draught being lost. Ref. Ps.
- 143 Secada VN51759778 Alt. 198m Depth 10m Length 20m
The entrance is in a fresh depression. Tight take off at the head of a 6m pitch which leads to a short well decorated cave and a choke.
- 144 Secada VN51819780 Alt. 198m Depth 11m
Entrance has sloping soil covered ledge at head of drop which is a 9m pitch into a choked chamber. Tight hading rift on the left could be pushed.
- 145 Enaso VN51489712 Alt. 360m Depth 6m
Single choked shaft.
- 146 Enaso VN51499732 Alt. 303m Length 10m
A 10m diameter chamber
- 147 Enaso VN51459739 Alt. 295m Length 6m
Low entrance slopes down to a low muddy passage.
- 148 Secada VN52009714 Alt. 250m Length 40m
A low passage opens out into a well decorated chamber.
- 149 Enaso VN52009692 Alt. 325m Length 15m
Several small openings unite in a passage which turns left and becomes too low.
- 150 Enaso VN51969682 Alt. 375m Length -
Four short caves. There is a sloping chamber in one.
- 152 Secadura VP548002 Alt. 200m approx.
Unexplored shaft.
- 157 Muela VN54209624 Alt. 643m
Unexplored hole under boulder. Marked 'PD1'. Rocks drop for 4m.
- 158 Muela VN54209627 Alt. 645m
Unexplored shaft of about 10m.
- 159 Muela VN54489638 Alt. 720m Depth 10m
Three parallel shafts that all choke. Marked 'PD4'.
- 160 Muela VN54059665 Alt. 570m
Unexplored cave. Marked 'PD5'.
- 161 San Miguel* VN58249822 Alt. 190m
Possible cave dig.
- 162 San Miguel* VN58479811 Alt. 160m
Unexplored shaft.
- 164 Muela VN54329675 Alt. 678m
Draughting hole that can be dug. Marked 'PD8'.
- 165 Muela VN54509613 Alt. 705m
Unexplored shaft of about 12m depth. Marked 'PD9'.
- 166 Llueva VN54269859 Alt. 265m Length 5m
Small room sized chamber.

- 168 Muela VN54229716 Alt. 578m Depth 12m
Single choked shaft. Marked 'JC1'.
- 169 Muela VN54329706 Alt. 635m Length 80m
Bedding plane slot leads to large sloping chamber that veers down to the right.
Ref. Ps.
- 170 Muela VN54499665 Alt. 783m Length 80m
Small crawl to draughting blockage. Marked '170'.
- 171 Muela VN54459663 Alt. 783m Depth 20m
Series of three pitches to choked rift.
- 172 Muela VN54619659 Alt. 778m Length 50m
A crawl leads to a choke. Marked '172'.
- 173 Muela VN55709628 Alt. 552m Depth 20m
Near to base of large depression. Main hole about 10m deep. Small side shaft about 20m deep.
- 174 Muela VN55669635 Alt. 587m
Undescended shaft of about 50m.
- 175 Muela VN55679635 Alt. 587m
Undescended shaft of about 20m.
- 176 San Miguel* VN588972 Alt. 60m
Twin resurgences. The southerly one has a draughting choke above flowing water. The northerly resurgence has a short length of non-draughting passage.
- 179 Beralta VN518954 Alt. 300m Length 50m
Easily seen entrance above Cueva de Haya. Two passages soon choke.
- 180 Muela VN54459612 Alt. 716m Depth 20m
Single choked shaft. Marked 'PD11'.
- 181 Muela VN54739602 Alt. 728m Depth 15m
Pair of shafts which both choke. Marked 'PD13'.
- 182 Muela VN54709603 Alt. 735m Depth 17m
Straight choked shaft. Marked 'PD14'.
- 183 Muela VN544959 Alt. 520m approx.
Recent collapse which is unexplored.
- 185 Muela VN53689640 Alt. 404m
Unexplored shaft of about 10m depth.
- 186 Muela VN53529673 Alt. 565m
Stones rumble down for 6 seconds although the entry is too small.
- 187 Muela VN537971 Alt. 500m approx.
Line of pits, about 10m deep, which are unexplored.
- 188 Enaso VN51379722 Alt. 360m Depth 6m
Single choked shaft.
- 189 Alisas* VN482956 Alt. 520m approx. Depth 34m
Small entrance at head of narrow rift. Ladder can be threaded through to other sections of the rift but all ways close down. Marked 'PD19'. Draughts inwards at the bottom. Ref. Ps.
- 190 Alisas* VN482956 Alt. 520m approx. Depth 12m Length 14m
Short pitch or climb into a chamber with a hole in the boulders on the right. A six metre ladder descent through here leads to very tight rifts that draught inwards. Marked '1'. Ref. Ps.
- 191 Alisas* VN482956 Alt. 520m approx. Depth 21m
A choked shaft. Marked '2'.
- 192 Alisas* VN482956 Alt. 520m approx. Depth 15m
Choked shaft. Marked '3'.
- 193 Alisas* VN482956 Alt. 520m approx.
Undescended shaft of about 15m depth.

195 Secada VN52139831 Alt. 295m
Draughting hole which needs digging.

196 Secada VN52449823 Alt. 273m Depth 10m
A two metre climb onto boulders and then a tight take off at head of small choked shaft. Ref. P.

197 Secada VN51859884 Alt. 484m Depth 45m
A twenty metre pitch lands on a boulder slope down to the head of the second pitch. This is 8m deep and chokes. Ref. Ps.

198 Muela VN551968 Alt. 600m approx.
Series of draughting holes which can be dug.

199 Secada VN51769899 Alt. 440m Depth 27m
Initially tight, 25m choked shaft. A parallel shaft appears to be slightly deeper but is too tight. Ref. P.

200 Secada VN52169819 Alt. 258m Length 5m
A wet weather stream sink. Two metre high passage has a strongly draughting hole at the end.

201 Muela Uncertain Alt. about 500m Length 20m
Short crawl into well decorated chamber.

203 Muela Uncertain Alt. about 500m. Depth 18m
Straight pitch into a well decorated chamber.

205 Secadura VN54089953 Alt. 400m Depth 20m
Fifteen metre pitch leads to a further 5m drop. A stemple is required for the undescended continuation in a tight rift. Ref. P.

206 Secadura VN54159951 Alt. 410m Depth 30m
Single choked shaft. Ref. P.

208 Muela VN55429570 Alt. 693m Depth 55m
A single choked shaft. Marked '208'.

209 Muela VN55419568 Alt. 695m Depth 55m
A calcite wall at the base of a choked shaft prevents further progress. It might be possible to bolt. Marked '209'.

210 Muela VN55389569 Alt. 708m Depth 43m
A 20m pitch drops onto large ledge. Two passages off this choke as does a second pitch of 20m. Marked '210'.

211 Muela VN55429571 Alt. 695m Depth 8m
A small cave entrance leads to 8m pitch and small chamber. Marked '211'.

212 Muela VN55399577 Alt. 720m Depth 152m
Probably the deepest shaft in the area, on a par with Sima del Cueto. Two climbs at the bottom are impassible. Marked '212'. Ref. P.

213 Muela VN55499584 Alt. 683m Depth 7m, 10m.
Two holes. The upper hole is a straight 7m pitch to a choked abandoned streamway. The lower hole is a climb down of 10m to a visible though unattainable continuation.

214 Muela VN55479588 Alt. 680m Depth 32m Length 15m
A 25m pitch lands on boulder slope with short climb down to abandoned streamway. Twelve metres further on the passage chokes at a 15m high calcite wall.

215 Muela VN55479586 Alt. 678m Depth 43m
A straight pitch into a large chamber. Two climbs lead to parallel shafts but all choke. Marked '215'.

216 Muela VN55469589 Alt. 673m Depth 46m
Straight shaft ends at calcite choke. Marked '216'.

217 Muela VN55539585 Alt. 694m Depth 15m
Straight 15m pitch into a chamber. Short passage leads to a calcited aven. Marked '217'.

218 Muela VN55509586 Alt. 683m Depth 9m
A choked shaft.

219 Muela VN55209585 Alt. 754m
Unexplored cave. Marked '219'.

220 Muela VN55219587 Alt. 754m
Unexplored cave. Marked '220'.

221 Muela VN55239585 Alt. 754m
Unexplored cave. Marked '221'.

223 Muela VN55219579 Alt. 754m
Small undescended shaft. Marked '223'.

226 Muela VN55209575 Alt. 755m
Small undescended shaft. Marked '226'.

228 Muela VN55209572 Alt. 755m
Small undescended shaft. Marked '228'.

230 Muela VN55549588 Alt. 687m Depth 27m
A 13m shaft with a similar shaft in lower corner of the boulder floor.
Marked '230'.

231 Muela VN55499597 Alt. 655m Length 4m
A small choked resurgence. Marked '231'.

232 Muela VN55469601 Alt. 668m Depth 46m
Choked shaft. Marked '232'.

233 Muela VN55439604 Alt. 683m
Undescended shaft of about 50m depth.

235 Secadura VP557006 Alt. 200m approx. Depth 15m Length 20m
A short downhill walk and then crawling to head of 10m pitch which descends
through boulders to a minute streamway. Ref. Ps.

237 Secadura VN56229951 Alt. 53m Length 10m Depth 5m.
A draughting entrance leads to steep descending tube to deep water with an
impossible bouldery mess above. Ref. Ps.

238 Secadura VP557005 Alt. 180m approx. Depth 5m
Choked shaft.

241 San Miguel VN57889671 Alt. 65m Length 3m
Small chamber.

244 Secadura VN55009907 Alt. 290m Length 20m
Entrance has been partially walled up and is used as a manure store. Small crawls
lead off at the back of the entrance chamber.

245 Secada VN530980 Alt. 200m approx. Depth 13m
The entrance emits a strong draught at times. A 6m pitch over boulders leads
to a short crawl to a 2m deep rift, choked with boulders, which emits the draught.
Ref. P.

246 Ozana VN53889473 Alt. 260m Length 10m
Strongly draughting hole that lowers to a crawl that could be dug.

249 Beralta VN522956 Alt. 250m approx. Length 100m
Small entrance leads to large passage which chokes. An arch to the right leads to
a parallel large passage choked in both directions. The haunt of many bats.

250 Beralta VN521956 Alt. 250m approx. Length 40m
Walking sized passage at stream sink gradually lowers to a crawl which becomes
too low.

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