

# The Tresviso Caves Project

## Expeditions to the Eastern Massif, Picos de Europa, Northern Spain (1974-2016)

### ***Overview***

The past four decades have seen a number of English cavers undertaking expeditions to the Picos De Europa mountain range in Northern Spain. These mountains are 20km inland from the northern coast of Spain, forming an extension of the Cantabrian Mountains and consisting of three main massifs; Western, Central and Eastern.

The Western is to the west of the Rio Cares and has been heavily explored by Oxford University Caving Club (OUCC) and now the Ario Caves Project. The Central, between the Rio Cares and Rio Duje, is best known for being the location of the Naranjo de Bulnes, popular with climbers. Finally, to the east of the Rio Duje is the Eastern Massif, an area originally explored by Lancaster University Speleological Society (LUSS) and now by various clubs under the Tresviso Caves Project banner.

### ***The Eastern Massif***

At the eastern end of the Eastern Massif is a small hydroelectric plant, fed by a canal running along the side of the Urdon Gorge. A track can be followed along the bottom of the gorge, before climbing steeply over 500m to the small mountain village of Tresviso. If the canal is followed along the gorge, it passes 2 impressive resurgence caves, the *Cueva de la Rio Chico* and the *Cueva del Nacimiento* (Cueva del Agua). The gorge continues westwards for another 3km gradually changing into the broader Sobra Valley, passing *Cueva del Marniosa* on the left.

Above the Sobra Valley and to the North, is the area known as La Mesa and Cotera Redonda. Largely unexplored but believed to drain away from the main caves and toward the village of San Esteban. To the immediate South lies the heavily wooded areas of the Sierra del a Corta and the Valdediezma. Beyond these ridges the mountains increase further in height to the Andara area.



***Picture: Andara, looking North West (Phil Walker)***

Andara contains a number of >2000m peaks, surrounding 4 historic areas of exploration; the Sara depression (Vegas de Andara), the largest area at 2km x 1.5km, the Lake Depression (Pozo de Andara) at 2.5km x 1km, the smaller Evangelista depression and the 56 Depression (Cueto de los Senderos).

*Note: In around 1996, Spanish cavers, via various publications, began to change the names of numerous caves and map features, to bring in line with Spanish naming conventions. Unfortunately, as this took place during a lull in UK exploration a lot of gaps and inconsistencies were created. These can still be seen in depth, length and exploration records of caves in the area.*

### ***History of Exploration***

The following section is a brief summary of the main activity in the past 40 years.

#### ***LUSS (1975 – 1987)***

LUSS arrived in the mid 70's at Tresviso, after hearing tales of cheese matured in caves by the villagers. A number of local caves and shafts around Tresviso were explored before they

were directed down a steep track, to the bottom of the gorge and a man-made dam, with a deep resurgence pool behind. This was *Cueva del Agua*, or officially, *Cueva del Nacimiento de Rio Urdon*.



**Picture: Entrance, Cueva del Nacimiento (Russ Brooks).**

The first year in *Nacimiento* explored a lot of the entrance series all the way up to the large *Boulder Hall* at +150m. The main streamways and secondary streamways of *Road to Certain Death* and the *Road to Ruin / Wigan Pier* were explored with a total of over 3.5km found that year. The following year (1976) the main way on above *Boulder Hall* was found, down a 22m pitch to a series of large phreatic ramps heading off (and up) into the mountain.



**Picture: The Ramp, Cueva del Nacimiento. (Phil Walker)**

In 1977 exploration continued in *Nacimiento*, but also the first trips to the Andara range occurred. In *Nacimiento* new passages and large chambers were being discovered with over 4km of new cave added to the existing survey. By now trips were taking over 19 hours so underground camps were started and used for the entire 1978 expedition, for 4 days at a time. 1978, also saw the Madrid based S.E.I.I club joining LUSS on the trips both in *Nacimiento* and on the Andara range. *Nacimiento* was pushed higher, to +392m and finally the main streamway was re-discovered (having not been since the entrance series). Lots of further discoveries were made in the furthest passages, with the cave now over 10km long in total. However, as the main way on into the mountain appeared to have been lost, attention then turned to the deeper systems on Andara.

1975-1979 also saw the exploration of *Cueva de la Marniosa*, an apparently feeder into the *Nacimiento* system from higher up the valley. A strong draught was followed down a series of pitches to an impressive 3km streamway, with a large chamber upstream and downstream to a sump, heading in the *Nacimiento* direction. A fatal accident in the cave, dampened enthusiasm for much exploration in the cave and it wasn't until 1986 that cavers revisited *Marniosa*.



***Picture: Cueva de la Marniosa (Russ Brooks)***

The deeper systems on top of the mountain were first visited in 1977, with camps set up in the Lake Depression and then later the abandoned miner's hut, the White House (now the green coloured refugio - Caseton de Andara). Exploration initially concentrated on the mine systems, *SARA*, *TERE* and *R.C.A.6*, all within close proximity of the camps. *SARA* was particularly noteworthy for the discovery of the *Heinous Shaft*, a 280m wet spray filled pitch, that still remains a serious undertaking today, with no easy way of staying dry for the entire length of the shaft. In 1978 exploration in *SARA* continued, with the added bonus of a successful dye trace to *Nacimiento*. The cave finally ended at -571m, in a large sump pool, after a few kilometres of large sporting stream passage.



**Picture: R.C.A.6 - T91 Lower White House Mine. (Phil Walker)**

*TERE* was finally returned to in 1979 and after the initial mine passages, the system broke out into natural passage and was quickly dropped to -487m. The following year another route dropped to a similar depth and it was 1981 before a concentrated attack on the cave pushed it down to -792m.

During the same time further deep caves were discovered and pushed by LUSS. *Flowerpot* (*Torca del Picu Boru*) was pushed down to -792m and *Dosser's Delight* (*Torca del Cueto de Los Calabrerros*) explored down to -831m. However, it was the discovery and exploration of *Sima 56* (*Torca del Cueto Senderos*) that was to turn the area into a 'famous' caving destination.

Discovered in 1977, a small hole, with a '3 second drop' beyond, was left until the following year when a 122m shaft from just inside the entrance, led to major horizontal development. Dye tracing soon revealed a connection with *Nacimiento* and the possibility of a +1500m through trip started to dominate expedition planning. Over the next couple of years, *Sima 56* was pushed down various leads, through huge chambers and horrible tight rifts. It was 1982 before exploration really started to ramp up, pushing the cave to -817m. The following year it took 5 cavers 8 days just to set up a camp at the furthest point, but exploration that year, pushed the cave past the 1km mark, reaching -1169m. The deepest cave discovered by a UK team, the 2nd deepest in Spain and the 6th deepest in the world (in 1983). A book was published about the cave but the core of cavers involved in exploration started to move on to other expeditions and non-student life.

### **SWCC (1986-1987)**

The South Wales Caving Club (SWCC), undertook diving trips to *Nacimiento* and *Marniosa*, loosely in collaboration with the LUSS expeditions of 1986 – 1987. An experienced team of divers, including Rob Parker and Ian Rollands, dived a number of sumps in the area. In *Nacimiento* the *Road to Certain Death*, the *Road to Wigan Pier* and the *Far Upstream* sump were all dived. *Certain Death* going deep almost immediately and preventing further exploration, *Wigan Pier* surfaced after 180m before meeting the *Parting Friends* sump. The *Far Upstream* Sump was also dived to 162m long at -27m deep and left at large ongoing passage. In *Marniosa*, sump 1 was passed to over 500m of very horrible tight passage to another crystal-clear sump pool.

In addition, a team of climbers, found the main way on in *Nacimiento*. A steep section of ramps high above the *Bloody Lake*, was boldly climbed to the area known as *Teeth of Satan* and *Death Race 2000*.



**Picture: Brain Baru's Place, Cueva del Nacimiento. (Phil Walker)**

### **LUSS (1995-1996)**

After nearly a ten-year gap Lancaster briefly resumed work in the 'middle camp' area. Two expeditions spent time hammering away at a draughting rift in *Cueva del Entre Cuetos* (the Cheese Cave). As a prime location, situated part way between *Nacimiento* and the deeper

potholes, it was hoped that a way into the backend of *Nacimiento* could be found and provide a quick and easy means to explore further up the mountain. Success was limited, but the visit was enough to inspire a few of the members to return another ten years later.

### **AD KAMI (1996 – present)**

The Madrid based A.D. KAMI club began exploration around the village of Beges but gradually, over the next few years, spread into the Andara region, as English interest in the area dwindled. Initial exploration was in and around Beges, finding smaller, although possibly localised, resurgence caves. A few old LUSS discoveries were revisited, in particular *Fallen Bear Hole (Torca de Branaredonda)*. This was explored to -180m by LUSS in 1977, then revisited by A.D.KAMI. in 1996 when a 'small rock was removed at the limit of LUSS exploration' and the way on found down a huge ramp to a new depth of -456m. *Torca Hendida* was another major discovery, a high-altitude cave, on the slopes of Samelar, dropped to -452m.

However, the major discovery was *CS-9 (Torca Jou Sin Tierre)*. Not too far from *Sima 56*, an inconspicuous hole was discovered and explored between 2003 – 2012. The exploration was tackled with military precision, helicopters, huge equipment dumps and a siege mentality eventually pushing the cave down to -1203m. The depth record of *Sima 56* was surpassed. *CS-9* is currently the deepest cave in Cantabria, 5<sup>th</sup> deepest in the Picos, 11<sup>th</sup> deepest in Spain and 47<sup>th</sup> deepest in the world (as of 2017).

### **SWCC (1995-1996, 2009-2014)**

SWCC revisited the area in the early 90's. Firstly, a diving trip back to the *Road to Certain Death*, led by Gavin Newman, was unsuccessful due to high water levels and then a visit to *SARA* the following year, met similar disappointment. In 2000 Gavin Newman once more visited *Nacimiento*, along with the BBC, for the "Extreme Lives – Road to Certain Death" documentary. This time *Certain Death* was extended further, but the main success (although not really covered in the documentary) was a change of plan that saw the *Parting Friends* sump passed after 8m to another sump, that was then dived for a further 150m and continues in wide passage.

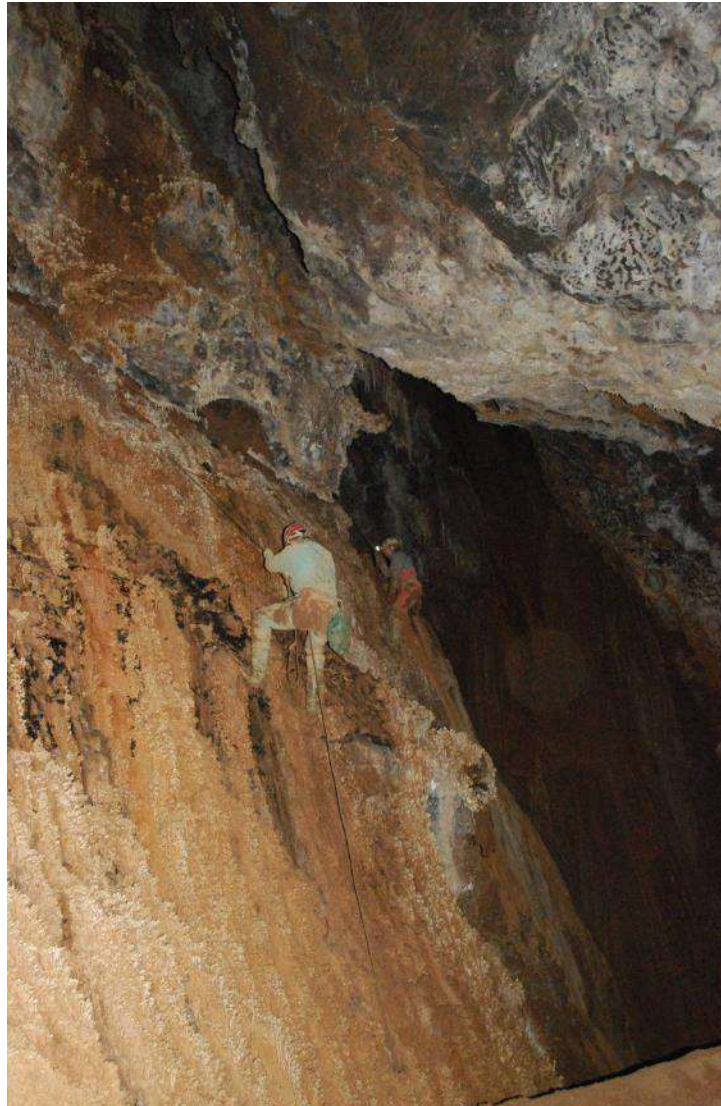
In the mid-2000's consistent activity was re-started by South Wales members and others (this exploration eventually evolving into the current expeditions). Initially, this was mainly revisiting some of the old leads, with most described as ending in tight rifts and squeezes. Armed with drills and capping equipment, a few quick successes were achieved. *Cueva del Entre Cuetos*, the LUSS 90's objective, was capped at the draughting rift to reveal three new pitches and an immature stream way. *Torca Septrin*, was similarly attacked, again with new pitches and a rift leading off.





***Picture: Brian Baru's Place Cueva del Nacimiento. (Jason Gotel)***

In 2011 it was decided that a revisit to *Cueva del Nacimiento* might be a good idea. Employing the same techniques of small groups armed with drills and capping gear it might be possible to push some of the more difficult leads. The main objective that year was to reach the *Teeth of Satan* climbs at the back end of *Cueva del Nacimiento* and investigate the leads left by the earlier expeditions. However, the lack of route finding knowledge and re-rigging took much longer than expected and it took 3 people 4 trips to rig the cave and set up an underground camp to support the *Teeth of Satan* climbs.



**Picture: *The Beasts Ramp, Cueva del Nacimiento. (Phil Walker)***

The climbs proved difficult in places (a testament to the previous explorers in the 80's) being anywhere from 70 degrees to vertical ramps and it took a lot longer than expected to climb the tricky ones. It soon became obvious that the 1986/87 surveys were not entirely accurate. Although a lot of in-situ rope and other signs (bags of abandoned equipment!) were encountered, indicating the correct route was being followed, the route and descriptions did not match what was being discovered.

As time began to run short, it was agreed to continue to follow the draft and investigate the avens in the *Death Race 2000* chamber. This was the furthest and highest point of the known cave. On the last planned day in *Nacimiento*, the chamber was reached. It was as impressive as described, being approx. 40m x 40m, full of huge boulders and 2 x 80m - 100m avens entering over the deepest part. The cave was left rigged, ready for the following year.

Buoyed by the excitement of the previous year the 2012 expedition planned an ambitious two-pronged attack, climbing the *Death Race* avens and diving the *Far Upstream Sump*. As

the cave was rigged from the previous year, it meant progress should be a lot quicker and a large team of 18 people were recruited for a 3-week expedition.

The main challenge was getting diving equipment into the cave. The *Far Upstream Sump* was a good 8 hours or so from the entrance and it took a number of trips to carry in all the necessary equipment, then over a three-day underground camp, Martin Groves dived the sump, extending it for another 80m and a depth of -46m. Like the previous year it was discovered that a lot of the 80's information was incorrect and the sump, described as continuing in wide open passage, only did one of these things, it did carry on in wide open passage, but an underwater shaft had to be descended first. The shaft was beneath the previous tied off dive line, so quite why it was never reported remains a mystery. Despite this, the technical challenge of diving at this location marked a major achievement and the continuing passage heading off into the mountain is a tantalising prospect for the future.



***Picture: Far Upstream Sump, Cueva del Nacimiento (Phil Walker)***

At the same time another team once more made it to the *Death Race 2000* camp and set about scaling the avens. A number of high level passages were encountered part way up one of the avens, but the main discovery was down at the bottom of the *Death Race* chamber. A 60m pitch down led to a small immature stream way. This was explored in the 80's and wasn't described as very promising. However, a tight way on was found leading to

700m of passage and down to –150m, almost back to the level of the start of the *Teeth of Satan*, again a significant achievement given the remoteness and technical difficulty of exploring in this area. .



**Picture: Main Stream way, Cueva del Nacimiento (Phil Walker)**

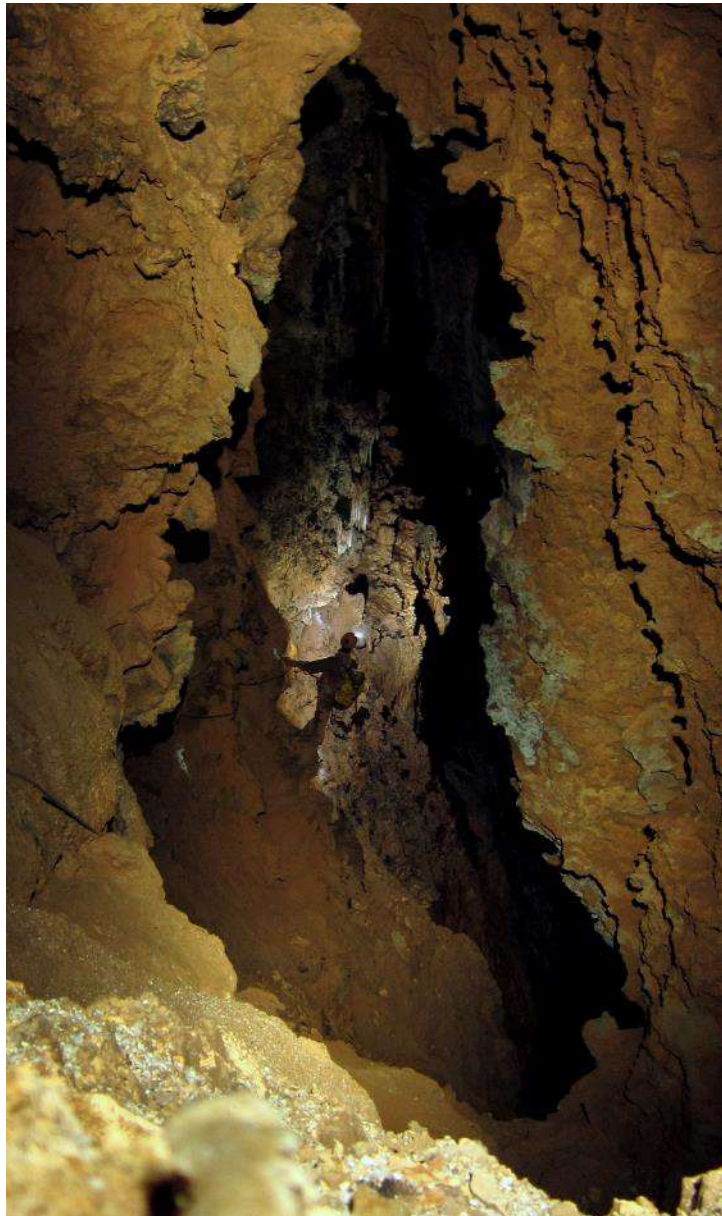
In 2014 the expedition continued building on the successes of previous trips, but due to reduced manpower, concentrated on the *Wet Aven*, a lead close to the start of the *Teeth of Satan*. The aven would appear to be the final pitch in a pothole entering from the Sierra del Corta range. The aven was scaled for over 20m, under quite difficult conditions, until increased water levels forced a halt to exploration.

The expedition was also an introduction to the area, for an influx of Cardiff based cavers, who 'volunteered' to take a look at *Torca Septrin*. This is a cave on the Pico Boro, at the time only –110m deep but close to some of the deep –800m caves of the area. The still draughting lead from the 2010 trip was still promising and 3 trips of 4 cavers attacked the cave, extending it down to –160m, through some quite horrible, cold and wet cave.

Another cave, on the Sierra del a Corta, that was originally found in 2009, was finally revisited. The lead was initially just a 20m pitch to a tight squeeze, however, during the time trying to enlarge the squeeze, a small tree was pushed back to reveal an impressive parallel –120m pitch straight from the surface. A rare occurrence on the Sierra del a Corta, as most caves are clogged with leaf debris within a few meters. The cave soon narrowed to a tight draughting crawl, but remains promising.

### ***Tresviso Caves Project (2015-present)***

As more and more different UK and Spanish clubs began to get involved in the exploration it was rebranded, like so many other expeditions, as the Tresviso Caves Project. The 2015 expedition once more concentrated on exploration in *Cueva del Nacimiento*, finding over 1km of new passage. The major success was the *Die Hard – Jurassic World* extensions above *Death Race 2000*. The strong draught in the cave was rediscovered here and the way deeper into the mountain appeared to have been found once again.

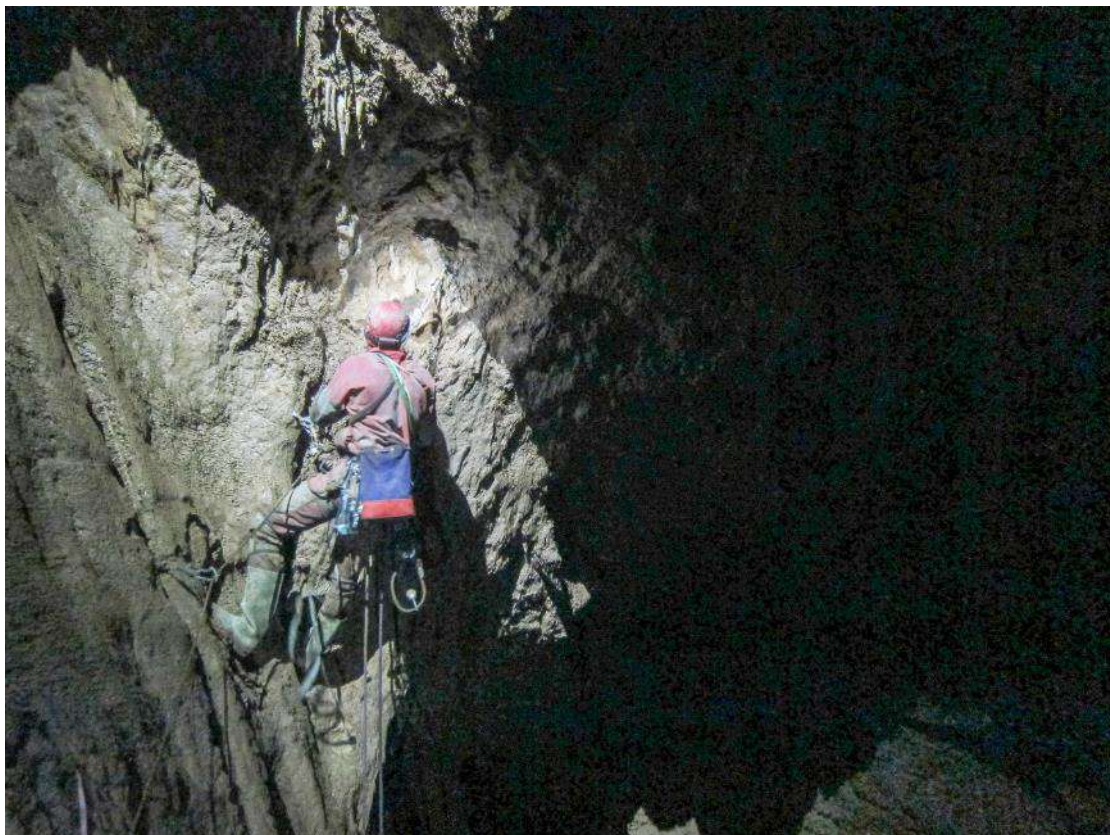


***Picture: Death Race 2000 traverse, Cueva del Nacimiento (Rob Middleton)***

The 2015 expedition, thanks to an increase in interest from experienced cavers, saw the first attempts at re-visiting some of the deeper caves on Andara, mainly looking at old leads

(with new eyes). *T105 Italianos* and *T91A Torca Boulderosa* were successfully revisited and re-rigged and despite not producing any new cave the work has been invaluable in updating and clarifying the 'picture' of the higher cave systems and their relation to *Cueva del Nacimiento*.

The 2016 expedition was based around continued work in *Nacimiento* and on the mountain, *Pozo Castillo*. The far reaches of *Nacimiento* were again expanded, with another 0.5 km of cave found and a number of new avens climbed to over 50m high. In particular the *Wet Aven* was revisited and climbed to just over 50m to a series of 3 pitches / avens coming in just to the side of the main aven. A small squeeze with a draught and echo beyond is the current limit.



**Picture: The Wet Aven Cueva del Nacimiento (Joe Daniels).**

*Pozo Castillo* is a network of mines passages and natural passage, reaching  $-297\text{m}$  at its deepest point. First visited by a French team in 1983, it's description refers to a roaring sound coming from beyond a tight squeeze. Unfortunately, since that time, a collapse in the entrance series has prevented (or scared off) any further exploration.

The expedition spent a few days beginning, what is most likely going to be a multi-year side project, tentative exploration of the system. The main *Pozo Castillo* route still appears to be collapsed. A concentrated effort would be required to clear the blockage but potentially one of the other numerous entrances in the area may provide a route past. The *Pozo*

*Natacha* route was rigged down to the final pitch and an early trip, at the start of the next expedition, should be able to determine the potential of progression at the furthest point. The direction and current depth of the cave places it very close to the end of *Castillo* and most likely it will connect with the hypothesised main feeder system beyond both caves.

## Future Expeditions

The latest expeditions are now fully concentrating on the aven climbs at the back end of *Nacimiento*. Gains every year are pushing the cave higher and the surface is getting closer. Ideally, as well as breaking out to the surface, we need the cave to drop down again, so that further progress towards the deep systems can be gained. There are more and more leads being identified, both at the back end, but also nearer the entrance series. Aided by modern technology, maps and surveys are highlighting features within the cave and on the surface that hold promise for some big discoveries. Interest is also building in the deeper systems in Andara and each expedition now concentrates on one of the deep caves.

There are endless combinations of possible deep cave potential (even a middle entrance on the Sierra del a Corta would create a through trip of -800m) but the deep caves are the real goal and the main ones of interest:

- *Torca Hendida* to *Cueva del Nacimiento* would create a -1620m through trip; the deepest underground traverse, deepest cave in Spain and the 7<sup>th</sup> deepest cave in the world,
- *CC-9 Torca Jou Sin Tierra* to *Cueva del Nacimiento* would create a -1594m through trip; the second deepest underground traverse in the world, the deepest cave in Spain and the 8<sup>th</sup> deepest cave in the world,
- *Sima 56* to *Cueva del Nacimiento* would create a -1495m through trip, still the second deepest underground traverse, but a bit further down the rankings for other deep records,
- The highest known entrance on Andara, *AN-104*, would create a -1800m through trip to *Nacimiento*, the 4<sup>th</sup> deepest cave in the world (it's full of snow at -30m...).

Top Entrance	Area	Alt(m)	Current Depth(m)	Vertical Range (m)
S-33 Torca de la Hendida	Samelar	2100m	-452m	1620m
CS-9 Torca Jou Sin Tierra	Cueto Senderos	2074m	-1203m	1594m
Sima 56 Cueto de Los Senderos	Cueto Senderos	1975m	-1169m	1495m
T82 Karen – 2.6 Sara	Grajal	1880m	-591m	1400m
T145 - Pozo Castillo	Mazarassa	1870m	-309m	1390m
2.24 Tere	Sara / Grajal	1820m	-792m	1340m
FT39 Compromisso	Mazarassa	1820m	-313m	1340m
T169 Flowerpot	Pico Boro	1785m	-723m	1305m
T173 Dossers Delight	Pico Boro	1706m	-831m	1226m
T190 Septrin	Pico Boro	1696m	-180m	1216m
3.2 Fallen Bear	Samelar	1589m	-456m	1109m
T510 Cueva Entre Cuetos	Sierra del a Corta	1305m	-117m	825m
T69 - Pozo Motilla	Sierra del a Corta	1248m	-70m	768m

**Table: Depth potential to Cueva del Nacimiento.**

However, in 40 years of exploration only *SARA* and the upper levels of *Sima 56* have been successfully dye traced to *Nacimiento* and the hydrology of the area is still largely unknown.



The majority of caves trend away from *Nacimiento* (even *Sima 56*), but as the only major resurgence in the area it is believed that they all feed *Nacimiento*.

### ***Big Data***

There are a lot of unknowns, although LUSS and others undertook a lot of exploration and created very detailed surveys of the main caves a lot of the secondary information, that is now quite critical to further progress, was less carefully logged. Since 2010 there has been a concerted effort to bring the current and historic expedition output into a modern and consolidated dataset. This has included:

- creation of a modern database of all data,
- conversion of old Madrid co-ordinates,
- translation of French and Spanish reports,
- begging emails to various clubs / in various languages to gather old reports,
- conversion of old LUSS surveys into digitised Survex files and redrawn Illustrator files,
- survex dataset, version controlled and stored on registry,
- creation of master survex file, combining all data and a surface overlay,
- digitising of surveys into KML and creation of a Google Earth. kmz file,
- updated website and blog ([www.tresvisocaves.info](http://www.tresvisocaves.info)).

This has enabled, among many things, accurate stats, highlighted new leads, shown proximity of caves to one another and confirmed 70's guesswork (in many cases very accurate!).

Some basic statistics:

- 818 logged sites
  - 616 with accurate GPS locations
  - 211 active leads
  - 512 included in Survex overlay
  - 500 included in Google Earth overlay
- >64km of surveyed caved
- 198 articles and reports (various languages)
- 141 unique surveys



***Picture: Mountain range (East to West) with altitudes (Survex)***