2018 MATIENZO EXPEDITION REPORT

Members of the DCC were in Matienzo from the end of July to mid-August. With Steve Martin (who was of course out for considerably longer), those present for shorter times were: Bill Booth, Richard Bullock, Pete Clewes, Nigel Dibben, Dave Dillon, Tom Howard, Charlotte Meakin, Liz Taylor and Paul Willman.

As usual, we tended to work as a group but on several occasions, DCC members were working with others on the expedition including Phil Pappard, Juan Corrin and James Carlisle.

TV Mast Field

The name is just a convenient way of referring to a field just below the barn at 30T off the TV mast track. We spent four days up there, firstly doing a reconnaissance and then opening three small caves and surveying and photographing several sites.

The caves opened and entered for the first time were 4416, 4791 and 4794. These were surveyed and we also surveyed 4714, 4779 and 4795. Detailed pictures and surveys will appear on the website in due course but here is a summary.

4416 This was a dig in a rift which was enlarged with caps, snappers and a chisel (Dale Street's bar) leading to about 15m of horizontal passage with stal and a draught. A way on could not be clearly seen but it's worth another visit.

4714 This cave was known but had not been surveyed. We descended the entrance pitch by ladder and Pete then free climbed the bottom pitch (see photo). The cave may continue but if so it will be at the same level as the entrance, making it similar to 4795 (see below).

4416 – Capping

4416 – The passage inside.

4714 – The climb at the bottom

4791 – Bill looking in to the entrance

4791 The entrance was spotted by Bill and entered the next day. The cave was another crawl with a lot of stal fill and then a drop down into which Richard unfortunately dropped his Disto. It is proposed to call the cave Disto Cave in respect. An attempt was made to recover the Disto with an assortment of tools (hooks, sticks and fly-paper) but without success.

4794 This cave had two entrances close together although we are not sure if they join. Nigel was the only one in there. After a washed out pot just inside the entrance, the cave is a flat-out crawl ending in a stal choke.

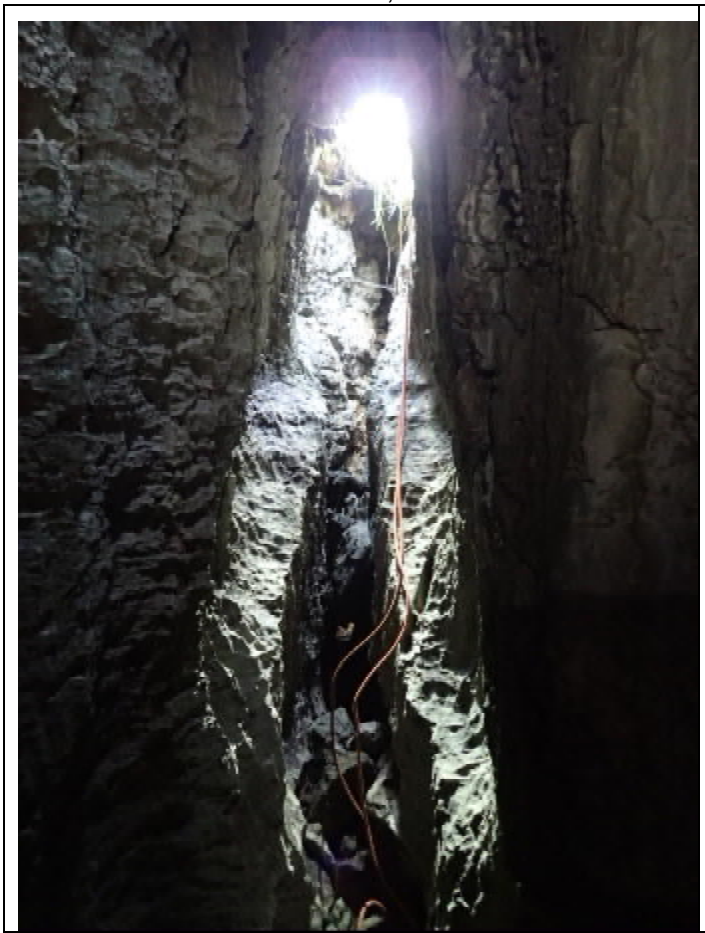
4794 near the end

Cow skull in 4795

4779 We were not sure if this had been descended before but it had not been recorded. The cave had a small entrance leading to a ramp down to a reasonable-sized round chamber. The cave was surveyed.

4795 Another cave that might have been visited but was not recorded. An entrance pitch (ladder necessary) dropped to a jam of boulders and bones with very narrow rifts each side. These could not be descended. The cave was surveyed.

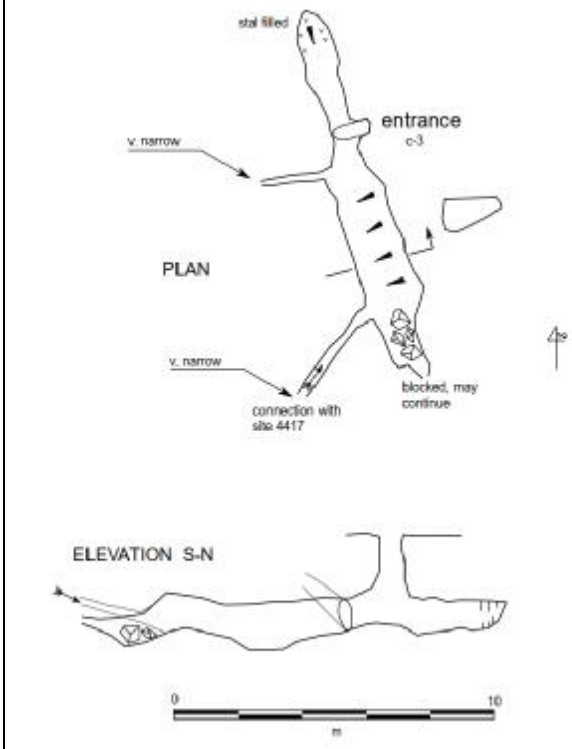
After the work described above, we decided to leave the area to look for fresh areas to explore.



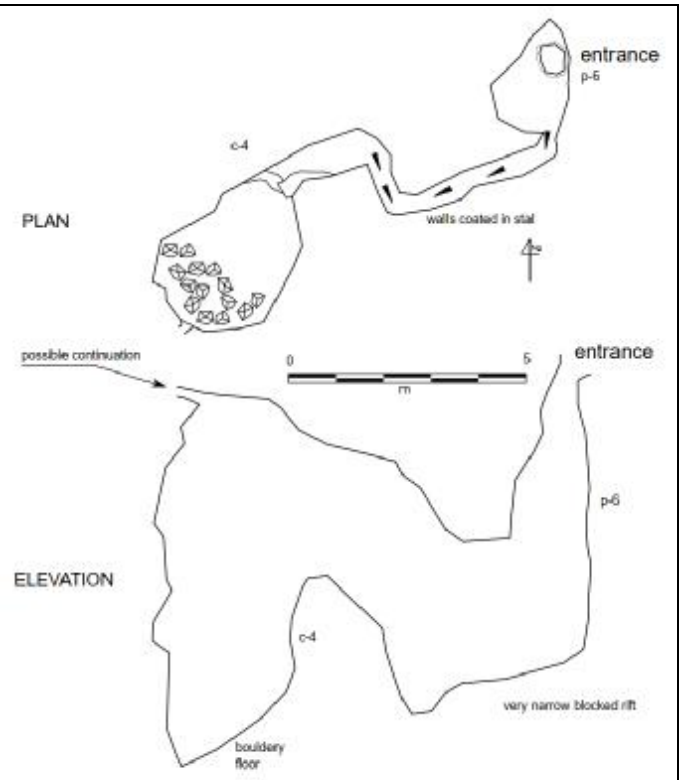
4770 – looking out from the chamber

View of the valley from the TV Mast Field

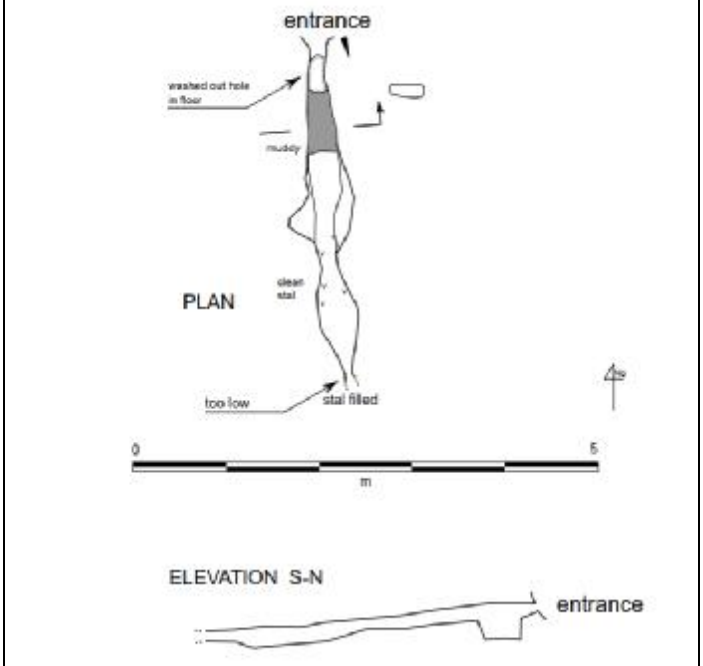
Surveys of TV Mast Field caves
There are miniature copies of the surveys on the next pages.



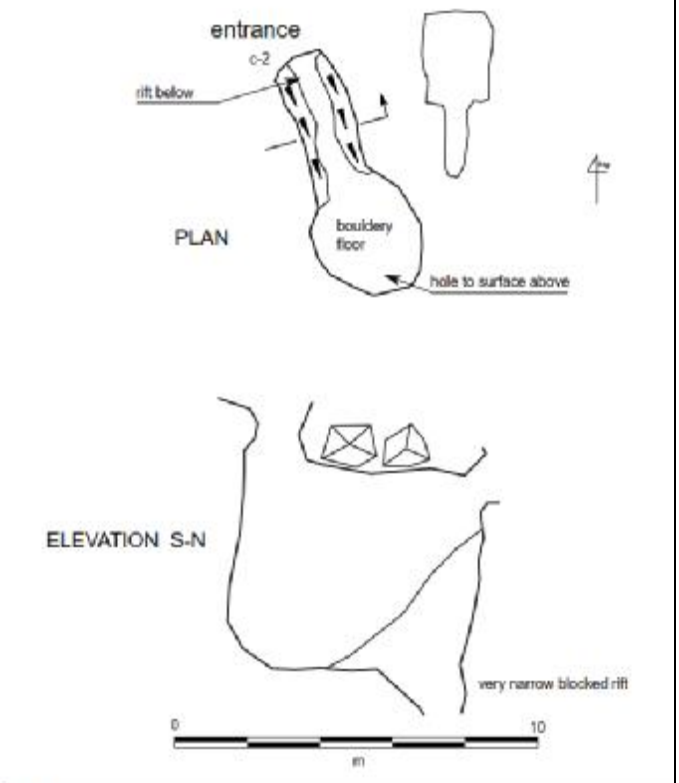
Site 4416



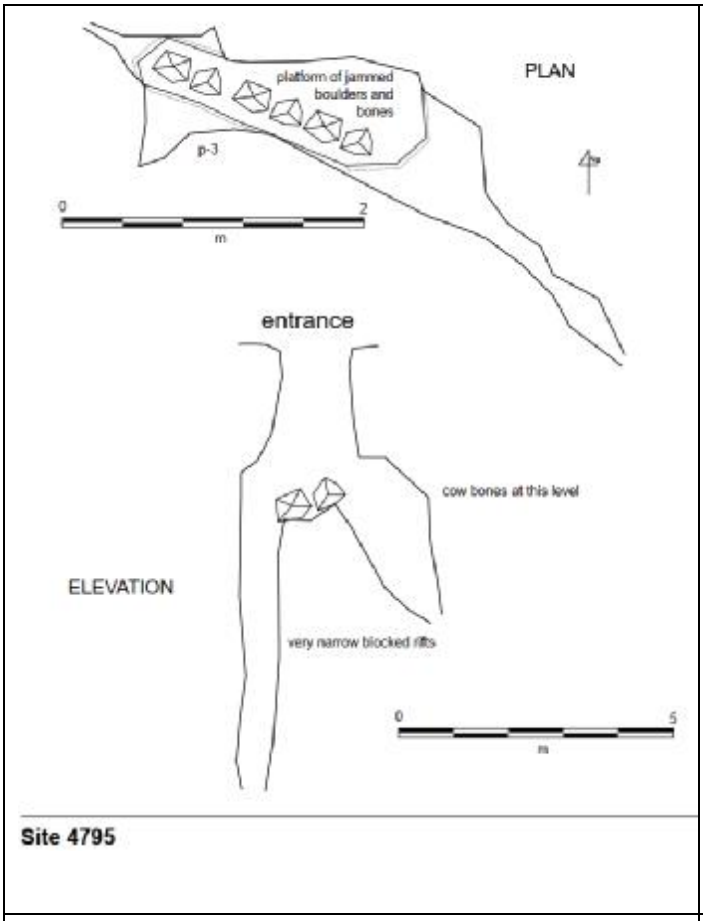
Site 4714



Site 4794 (South Vega)



Site 4779



0880 – looking out

Mushroom Field

Just for a change, we gave Pat Devine a hand on a dig of his at the top of the Mushroom Field. The cave/dig is known as Two and Half Fat Ladies (site 0880) and had been dug some time ago. It was revisited at Easter and then dug for a couple of days this summer. It does not carry a draught but could, potentially, be a back entrance to the Hoyuca-Four Valleys System. Our main contribution was to clear the entrance to the dig to enable it to be dug more effectively; previous work had ended in rat-holing.

Sima de los Hoyos (0072)

Pete and Nigel had a day off to descend Sima de los Hoyos in the Cubija valley. This shaft (as the Spanish name implies) drops 22m directly into the middle of a cave formed of two large chambers. In one, there are two skeletons of what were probably dogs and a skeleton of a bear. The bear skeleton is partly cemented into the calcite floor. We took the opportunity to take a number of photos, some of which appear below.

The bear's skeleton in 0072

Bear's skull

Formations in 0072

Boulder pile – way on?

The next day, we returned to the area (west side of Cubija Valley) and had a walk up a track relocating a number of old holes with a view to visiting them later but in the end we ran out of time.

Coreano

Just for a change, we had a short trip on a dull day to Coreano (0137) to take a few photos.

Pool in Coreano which can be passed in a wetsuit

Bill crawling between the stals

El Torno area

This area was new to most of us although Pete had been there with Tony many years ago. We went to check out various known sites that were described inconclusively including 2766, 2522, 2523 and 2366. In the end, we failed to find some, probably found some new ones, and then had a short trip into the main cave system (Cueva del Torno: 2366).

As a result of the reconnaissance, we decided to return for a couple of days to dig in 2522. With the help of Phil, we dug down 2.5m the first day and then to 5m the second. The incentive is a draught in the cave and a possibility of creating a backdoor to 2766 which would facilitate further exploration there. During our dig, we had a visit from a friendly farmer who was most amused by what we are doing and then took Richard to show him a shaft a short distance away. Just a tad more friendly than your average Yorkshire farmer! The dig was left safe and we will return next year.

Cave 2766: a fossil relic

In the entrance section of 2366

2522 before the dig

And at the end

Looking down

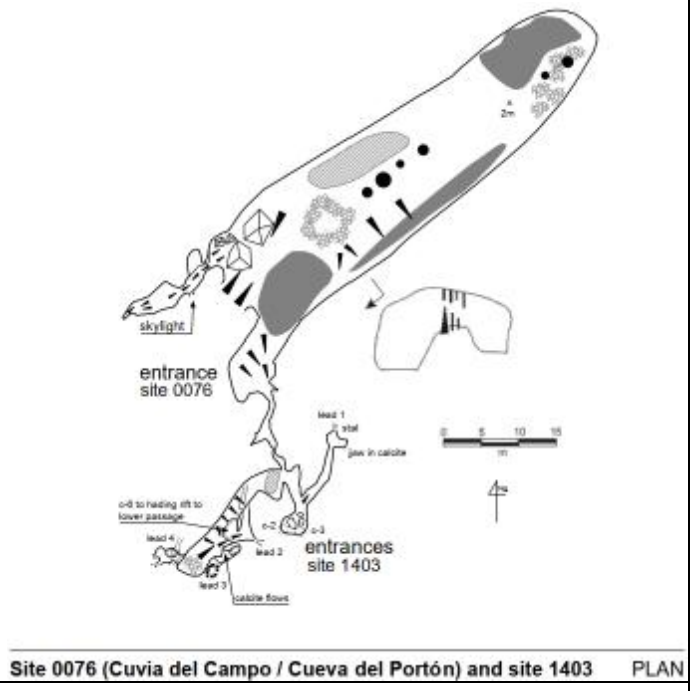
The draughting hole at the bottom

Cubija valley: 0076 (Cueva del Portón) and 1403

For another opportunity to take photos, we went to this cave which although we had driven and walked past several times, we had no idea it existed until this year. The objective included surveying the connection between the two caves. Several photos were taken and the survey was updated and at the same time Bill and Dave opened up and explored a new bit of passage just inside the entrance of 0076. These things are just waiting to be found! It did not go very far but the fact of another new discovery was a welcome change for us.

The new discovery in 0076

Dave investigating a possible lead



Site 0076 (Cuvia del Campo / Cueva del Portón) and site 1403 PLAN

Revised survey of 0076 and 1403

Fresnedo II

As well as the work described above, James Carlisle took Tom and Dave with him on two separate trips to do some work in Fresnedo II. In Tom's case this was well into the back of the cave while Dave helped with maypoling an aven "15 minutes from the entrance". Dave has described his exploits in the other part of this report we he has prepared.

Dave's report

Dave had a grant from the DCC's expedition fund and this is his Matienzo Report August 2018.

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My experiences on a three week holiday in Matienzo, and some hints I've picked up.

The village of Matienzo is in northern Spain about 35 miles south east from the port of Santander. Located in a depression, all the roads out of Matienzo go up over the surrounding hills.

The Matienzo Caves Project is set up to find, explore and survey the cave systems in and around the Matienzo depression. It gets an annual permit to explore from the Cantabrian Government by reporting on the previous year of exploration and survey.

The ultimate aim of anyone joining the project is surveying new cave and reporting back to mission control in the bar at Casa German.

In Matienzo, you have the opportunity to learn various skills needed to produce a cave survey. These skills range from being able to spot a new cave entrance through to getting the new data onto the Matienzo mission control computers.

So, the first step is actually having a cave to survey. If no farmer is available to ask, in Spanish, then spot holing is the semi random process of finding caves to survey. Most of the vegetation usually bites back, so you need rip and thorn proof clothing. Trousers over wellies stops gorse spines, etc., dropping into your boots.

Prodding for holes...

Obtain a long strong stick for hacking and sweeping away the barbed-wire plant and other biting things. A longer stick is good for prodding suspicious clumps of bramble as there may be a hole hidden in that clump. With luck the hole is big enough to drop a ladder in, allowing for a check on how measureless the newly found cave is.

… and then finding one.

The newly found cave might be no more than a drafting rabbit hole, so begins the digging and excavation stage to allow human access. The ground may yeald to a spade, or it may need hammer and chisel, capping or snapping. Some of these caves digs are fruitful and lead into caverns measureless.

Removing rock after capping and chiselling.

As a dig progresses and the hole deepens, it becomes prudent to use ropes, pulleys, tripods, etc. to help get the spoil out in a orderly manner.

Start of a dig at a drafting hole... and some time later, with wild life all around.

There are about 4800 identified features in the Matienzo database, as at August 2018. At expedition times, the data in the computers at the mission control bar is always ahead of the website. These features range from a depression in the ground, through undescended shafts, to entrances of cave systems with tens of kilometres of passage way. e.g. The Four Valleys System (59.3km long), Cueva Vallina (34.4km), South Vega System (34.3km).

Having gained entry to the cave, surveying and exploring proceed until... it's time to return to the bar, or you run out of bolts, hangers, rope, ladder, or you hit some other impasse...

Climbing rift with ladder and maypole, …

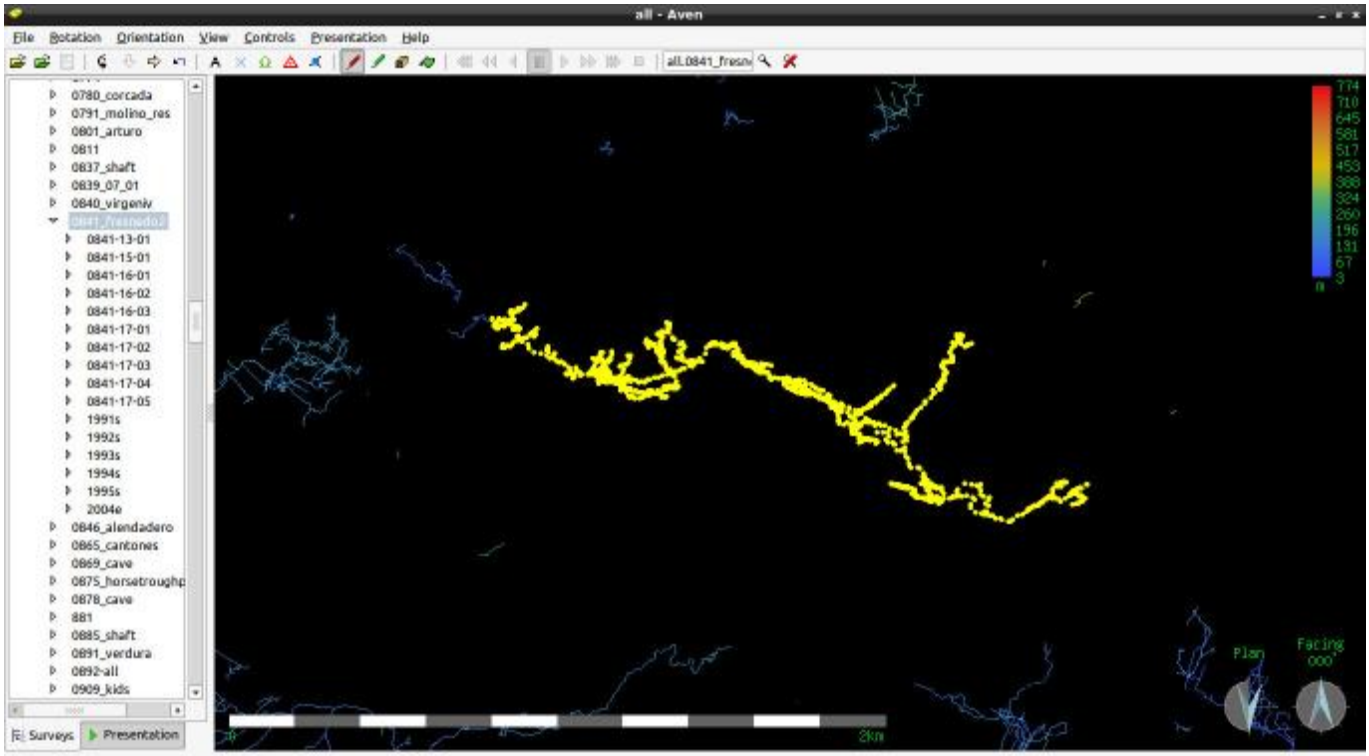
… and various claw marks on the muddy walls.

During the survey take time to look around, you never know what may turn up. These claw marks photos where taken in Fresnado 2 up in the higher passages accessed with the maypole and ladder, during a second survey trip in the cave.

Anyway, perhaps you go back next day re-equipped and continue the survey, or perhaps your holiday ends. Some of the systems are getting quite large and it could easily take four or five hours to get to the point where you carry on a previous survey. On my first survey trip into Fresnado 2, I took three hours to escape, passing such delights as Cueva Fresnedo - The Howling - YouTube. That survey stopped when we peered out into a chamber, but had no more rope to progress. The survey was continued by another team a few days later suitably equipped with rope, surveying until time ran out, again leaving drafting passage for the next team to continue surveying.

This highlights the communal aspect of the project, as the surveys are inevitably multi team efforts with new people carrying on surveys perhaps left from the previous year.

Another communal aspect is at Miguel's Bakers bar or down at Pablo's Casa German, the mission control bar, where you get to meet people from different clubs and countries, with different skills and areas of knowledge. You might speak to the person who surveyed the passage you are heading for on your current survey task. Perhaps you are learning Spanish and are listening to the locals chattering with some of the Spanish speaking cavers. You'll get to meet divers and could support a dive team carrying kit into a cave, allowing the dive team to survey new sumps. Here you pick up skills for transporting kit, crossing rifts, moving kit up and down rope, and as a bonus you get to familiarise yourself with that cave system. e.g. Dive carry in Cueva Vallina - YouTube.



And, the surveys themselves. At their simplest, cave surveys are made by measuring the distance, direction and inclination between a sequence of fixed points, or stations, along a cave passage. That basic information allows you to view the cave in 3D back at mission control, with software like Survex, and, when combined with other cave surveys you are able to see possible connection areas where your effort could be targeted.

More detailed surveys include the left, right, up and down measurements at each station to allow a rudimentary passage size to be recorded. Additionally, a sketch of the general cave features such as water flows, avens, floor material, etc. will be included. Cross section drawings can be added to help show the flavour of the cave.

The current Matienzo 'standard' survey technique is to use a simple laser distance measuring device, a Suunto compass and clino, paper and pencil. This equipment is supplied by the expedition. A survey team would consist of a minimum of two, for safety if nothing else. One person, at station A would measure distance, bearing and clino to station B, and measure passage size, calling out the readings. The second person at station B would light up the bit of cave that is station B and write down the called out reading, calling back the reading as a check to try to stop any vocal errors. Any decimal points are written as a forward slash, as the small point of pencil is apt to disappear under the mud that invariably creeps across the paper. Sketches are added to the pad to show the flavour of the passages. All the paper measurements are transferred manually into the Matienzo computers. The sketches are scanned in for later assimilation into Inkscape drawings.

If you can afford to move into the world of paperless surveying then you will probably use a Distox2 combined with either a PDA running PocketTopo or an Android device running TopoDroid. PocketTopo and TopoDroid are equally suitable, both having good and bad points.

The main, time saving, difference between paper and a DistoX is that the measuring, calling out readings, writing on paper and cross checking is replaced by a button press on the DistoX. OK, to be strictly truthful, a splay needs only one button press while a leg needs three, since the DistoX checks three consecutive readings to make sure they are similar enough to be used as a measurement for the leg. Each leg or splay measurement is transferred wirelessly from the DistoX to the survey program on the PDA or Android device, appearing in a list, rather like that dawn on paper. The survey program then graphically shows the legs and splays in plan or side view, allowing you to sketch accurate walls around the splays. The second time saving difference is that the measurements and sketches are transferred to the mission control computers via an sd card or usb cable. The whole process removes human transcription errors. Though it does introduce a larger chance of battery failure, as there is an extra battery in use.

During a paperless survey with a team of three, I was ahead marking and lighting the next station, a second was using the DistoX for that leg and splays, while the third, receiving the data from the DistoX, was drawing the cave with Topodroid. A fourth person would allow for checking any side passages for interesting leads and possibly drilling bolt placements for any SRT needed.

Having observed survey teams using paper or electronic paperless, it seems paperless allows a team to travel faster though the cave, assuming that the same level of information is recorded and the teams are equally familiar with their chosen techniques.

To sum up, some of the possible learning opportunities in Matienzo include in no particular order: Surveying, draft hunting, digging, brushing up on your Spanish, navigating underground, map reading on surface, report writing, vicious vegetation, photographs, breaking rocks, walking between the bars, capping, snapping, pulley systems, bolting, SRT, knee pads, ducks, water proof note pads, finding bones, kit cleaning, searching the database.

Cheers, Dave D.

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Cultural trips etc

As in previous years, we had a few days out to visit local and not so local sites outside the valley. One of these was to the show cave of Culalvera in Ramales. Here we formed a British team of nine, outnumbering the Spanish tourists. We also went via the Somo ferry to Santander and had a bus trip up to the lighthouse at the northern tip of the promontory. Liz and Nigel visited the town of Balmaseda and the hermitage outside Arredondo. In the third week, we all went to Burgos and visited the castle (and its caves) and the cathedral. On the last day, we went to the Horticultural Contest organised by Pete Smith, Penny and others which always ends with a delicious Spanish meal! On one day, we gave Johnnie and Jude a lift with clearing the rubble out of the cellar of their house and tidying up the building materials they store there. A couple of days before, they had laid on a Pimms and Cream Scones tea for local friends.

Naturally, we made good use of the bars spending a few nights at Bar German and rather more at the Baker's. A couple of visits to Bar Tomás and the expedition dinner completed the social events.

Culalvera show cave

Santander beaches

Burgos gate and walls

In the tunnels under Burgos castle (Pete doing his ET

	imitation)
	
A winning exhibit in the horticultural show	*Cave hermitage at Socueva near Arredondo*

Conclusion

All in all it was probably the most productive year for some time even though the biggest discovery was about 15m long! It also gave an opportunity for photographic and surveying practice with a lot of chat about Distos.