OXFORD UNIVERSITY EXPEDITION TO NORTHERN SPAIN.

Potholes discovered:

Pl (Pozo Palomerw): Jim's Pat:
150 ft shaft, walled. Extensive passages below. Still
being explored. Surveyed and photographed.

P2: On hillside above refugio....

60 ft shaft, fissure caverns connected by boulder slopes.
Flowstone and mud formations. Surveyed and photographed.

vP3: On hillside above refugio.
25 ft shaft between clints. Large chamber at foot of pitch.
60ft passage with crystal formations on floor and walls and
several large columns, mainly at end of passage. Surveyed and
photographed.

∨P4: In clints opposite refugio at beginning of La Vega del Bricial.

25 ft shaft. Nothing further of interest.

P5: In cliff east of 'Hidden Valley' (Las Reblagas)
Small vertical and horizontal extension. 6ft deep, 50 ft long.
Blocked by bergmilch formations.

P6: On hillside above refugio. 6 ft climb down to water-worn passage; spherical chamber.

P7: On west side of Lago de la Ercina in cliff.
33 ft. Rift at bottom, 45 either side, blocked with boulder

P8: Near Bll, near Fuente Seca. Explored further and surveyed 2.9.61. About forty feet deep. Blocked at bottom.

P9: Between valleys of La Meona and Riega la Vega el Texu. On ridge of La Joyosa. Two large potholes connected under a natural arch. Winding passage rapidly descends from foot of shafts, and small rift chamber with strong draught leads off foot of shafts. Surveyed.

PlO: In bowl-shaped valley behind natural arch above Vega de Comeya. Rifit entrance to chamber with rock pendants. Crawl leads to descending passage and series of small pots. Surveyed 2.9.61.

Pll: In Bowl-shaped valley behind natural arch in south face of Vega de Comeya, 100 yards from PlO. Several open pots which interconnect. Rift followed by pot with very fine formations and rimstone pools. Descending stream passage which finally

narrows. Surveyed and photographed. 3.9.61.

Pl2: Situated in valley bottom to N.E. of La Rasa. Three shafts. First 30ft deep, flat boulder floor. Second, 60ft, overhang with flat boulder floor, marked by small tree. Third, 15ft, choked boulder floor, square section.

Pl3: 20 ft pitch (climb down in shakehole). Small passages from chamber. Situated above Riega el Brazu. Surveyed.

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Record of sinks found, with details.

S1: Las Reblagas sink. In Las Reblagas valley, near south-west corner. Sink of stream which rises at B6. pH 7.2. Flow app. 300 gal/min (21st Aug.). Tested with Rhodamine B for connection with rising in Vega de la Cueva. -ve after 21, 44 hrs from La Ercina. +Ve but of threshold intensity after 52 hours. Rhodamine inserted 1700, 28.8.

32: Sink of the stream La Meona. pH 8.4.

S3: Sink of the stream Riega la Vega el Texu.

S4: La Ercina sink. At south-western corner of Lago de la Ercina, near C4. pH XXXX, flow app. 300 gal/min. (21st Aug.)

The acidic pH is probably from the marshy conditions of the end of Lago de la Ercina. The pH of the water sample taken from the northern end was 7°1. Rhodamine B inserted 1405 hours, 22.8 for test of connection to B6 and the rising in Vega de la Cueva. Rhodamine colouration flowed initially at approx. 0°5 ft/sec.

+ve at Las Reblagas after 29 hrs(1930 on 23.8)

Cueva after 52 hours (threshold intensity)

S5: Small sink inactive in dry weather. On shoulder of La Escampada about half a mile from the refuge. pH 8.2. Highly coloured.

S6, S7: Double sink of stream in South-eastern corner of Vega de Comeya.

88: Sink of main stream in North-western corner of Vega de Comeya. Very strong flow. pH 7.9.

89, 810, 811: Ditto. Inactive in dry weather.

S12: Small sink of stream rising on the slopes of Cuelo Sagaredo. Sink inside cave mouth of Cl2.

S13: Small sink of stream rising above dry valley of tributary of Rio el Osu on western extension of Vega de Seph. Near C14.

314: In shakehole below the fairly strongrising Rll (BlO).

S15: Sink of the stream in the gorge below Lake Enol. Dry weather only.

S16: Near two small caves near PlO. Inactive in dry weather.

S17: Stream sink below C15. (Cueva del Viento)

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Blocked entrances discovered : may be diggetle

Bl: (Cow shit pot) On hillside behind refugio, behind P2, opening out of large shakehole with natural arch. An open shaft choked with mud and faeces.

B2: In Vega del Bricial. Near small sink. Small pot blocked with rocks.

B3: In Vega del Bricial, 100 yards further east than B2.

Four feet deep pot blocked with rocks which takes a small stream. pH 8°1.

B4: (Cow Cave) At top of spur overlooking 'Hidden Valley' (Las Reblagas). Large natural arches where cows shelter.

B5: (Sheep Shit Cave) On left bank of gorge of Vega dem la Cueva near the stream.

Two entrances blocked by sheep dung and sheep sheltering.

B6: (Las Reblagas Resurgence) In the hidden valley of Las Reblagas, in the north-east corner below a bluff. Blocked cave from which emerges a strong stream (300 gallons/min) pH 7.2. Cave blocked by boulder choke. Tested by Rhodamine B for connection with La Ercina sink. Hank retrieved after 29 hrs.

Test positive (+)
B7: Shakehole in the Vega del Bricial, the bottom of which has
fallen in and might be entered by digging.

B8: Hole in rock at end of dry stream bed near B3.

B9: In S.E. part of Vega de Comeya. Between C9 and Clo(R7).

Now used as cow shelter. A low crawl may be possible. 200 ft
crawl with rimstone pools - explored 4.9.61.

BlO: (Rll) At rising Fuente de Abesedo. Small stream passage. Tanned cotton hank left 1900 on 24.8

Bll: Rift in shakehole bottom near Fuente Seca.

Bl2: Shakehole with tree near Plo, Pll.

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Resord of resurgences found.

R1: Rising in the Vega de la Cueva. See record of flow, temp. and pH attached.

R2: Rising in Las Reblagas (B6). pH 7.2. 300 gal/min. Proved connection with sing S4 (C4) Lago de la Ercina, by Rhodamine test.

R3: Rising of the stream La Meona.

R4: Rising of the stream Riega la Vega el Texu.

R5: Small rising entering Lago de Enol from south-east corner.

R6: Rising on slopes of La Escampada. Inactive in dry weather. pH 8.2.

R7: Cueva de la Fuente de Comeya. (ClO) Rising in the south east corner of the Vega de Comeya. Sinks 86 and 87 obviously provide the water.

R8: Small rising into stream joining R7 water from slopes of Cuelo Sagaredo.

R9: 'Malham Cove' At foot off 300 ft cliff to south of Vega de Comeya. Hank placed on 25.8. pH 7.9.

R10: Small rising at head of dry valley tributary of Rio el Osu. Sinks almost immediately into S14.

R11: Fuente del Abesedo. Tested with tanned cotton hank 1900 24.8.

R12: Tributary of main stream of Vega de la Cueva. Impressive potholes in bed. Inactive in dry weather.

R13: Resurgence in bowl shaped valley 100 yards above \$16.
Behind natural arch of Vega de Comeya near Plb.

R14: Rising of the Rio Pomperi some distance below bridge in the Vega del Huerlo.

R15: Rising of the stream below C15 (Cueva del Viento) in the Canal de Canraso.

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Caves discovered:

Cl: (Tony's Cave) Between peak S. of 'Hidden Valley'(Las Reblagas) and El Diadiellu on N. side of northernmost of the two limestone ridges between the two peaks. At bottom of small cliff.

Crawl down to small chamber with side passages. Surveyed.

C2: In N. cliff of El Diadiellu. (Rectum Cave)
drop to chamber and two passages. Decayed cave with slime.

C3: (Henry Moore's Cave) In southern limestoneridge mentioned above, halfway up ridge.

About 40 ft long with sculptured shapes.

Of Lago de la Ercina. Sink from the lake overflow is a few yards away. Strongflow of the order of 300 gals/min. Fissure cave with deep pool. Rhodamine B test to test connection to Las Reblagas rising. +ve at Las Reblagas after 29 hrs.

C5: Cueva de la Cascada seca. In the south cliff face of Las Reblagas valley, immediately below the point of debouchoure of the dry valley of La Meona. Possibly formed by spray from the waterfall or by solution from the stream bed directly above. Dry stream course continues on valley floor to join active stream course between B6 and S1.

C6: Small cave in the face of cliff above the south-wastern corner of Lago de Ercina.

C7: Near C6, a few yards to the north. Large entrance with extension behind of about 25ft.

C8: In the gorge of the stream flowing out of Lago de Enol in the south face of the Vega de Comeya. Large entrance, about 25ft high. No extension, but used as start to artificial tunnel through hillside near teleferico. Surveyed, with mine

tunnel and nearby caves.

C9: In S.E. part of Vega de Comeya. Former cave of debouchure leading into dry valley immediately above R7(ClO) Cueva de la Fuente de Comeya. Filled with faeces. Stream formerly entered through roof passage which may perhaps be entered. 10 ft crawl which narrows. 4.9.61.

Clo(R7): In S.E. part of Vega de Comeya. Stream rises from sump which may be penetrated. Cueva de la Fuente de Comeya. Sump impassable.

Cla: Near ClO around bluff. Large fissure entrance changing to typical stream passage. Cows and cheese. Not very extensive. Some large columns in chamber.

C12: (S12) Small stream running due west sinks inside large cave mouth on slopes of Cuelo Salgaredo. Large chamber. Two small stream passages, which are finally blocked. 4.9.61.
C13: Large entrance plus three smaller entrances near natural arch in cliff side of Vega de Comeya (SW corner of valley).

Caves discovered continued.....

Cl4: Group of caves near small sink (Sl3) in dry valley above TDW. Rio el Osu which is the western extension of the Vega de Seon.

Viento.

C15: Cueva deliex YEKEX. Situated at the head of the Canal de Canraso, a dry valley onem mile north north west of the refuge of Vega Redonda. Stream rises below the cave entrance, and sinks soon afterwards (S17, R15). Strong draught at entrance. Crawl leads to series of caverns and stream passages on different levels. Surveyed and photographed. After series of caverns, rift is entered, containing rimstone pools and large formations. Finally stream passage leads to active stream.

C16: Ice Cave. Meandering stream passage leads to chamber with snow, entered by open pot. Situated near junction of tracks below Porru Bolu. Surveyed.

C17: Rift cave in cliff by track below Cuesta de Cebolleda. 45 ft long, narrow fissure. Ends in small aven. Pure white walls at entrance.

C18: Large cow cave, situated on side of small enclosed valley Vega las Fuentes. 50ft wide entrance. 60 ft extension. Shelf with large calcite crystals.

Cl9: Situated between Vega de Comeya and Enol road, under cliff. Tunnel passage to chamber with flowstone. Surveyed.

TECORDS OF RESURGENCE IN THE VEGA DE LA CUEVA. about 500 gal/min. on 20th.

						on zoen.	
Date	Time	Temp.	pH	Compa: Flow. Gal/m		Rainfall Preceding 24 hrs.	Bar. Press. Ins.Hg
20.8	0900	48.0	7-7	XÖOĞX	3.8	0°155 bcm	26.54
21.8	1000	48.0	7.7	3.5		- Cc bc0	26.48
22.8	1100	48.5	7-7	3.2	-	Cb zbc0	26.54
23.8	1100	48.5	7.7	2.9	-	Cu zbc0	26.56
24.8	1000	48.0	7-7	2.7	_	Cu bco	26.50
25.8	1100	-	7.7	2.6	-	Cc bc0	26.46
	ed because		nce in Vang	gas de C	nis.		
27.8	1630	9.2°C	7.7	2.3	-	Oď	26.61
28.8	1000	9.5	7.7	2.1	-	ЪО	26.57
29.8	1700	9*5	7.7	1.8	-	Gu beo	26.44
30.8	1000	9.0	7-7	1.5	-	Cu me t	26.49.
31.8	1700	9.5	7.7	1.0	=	700	26.48
1.9	1900	9.5	7.7	0.8	-	bc/t.0 Ci Cu As	26.45
2.9	2000	9.5	7.7	0.7	0.02	Overcast	26.38
3.9	2000	9.5	7.5	0.7	tr	m d	26.33
4.9	1900	9.0	7.5	0.8	0.51	om Cb	26.36
5.9	2000	9.0	755	0.2	6:02	bc0/mr	26.52
66.9	2000	9.0	7.6	0.6	0:09	bc0/m	26°-85
7.9	0900	9.0	7.6	0.7	0.05	om	26.39
8.9	Abser	ice in Cor	vadonga.				
9.9	2000	9.0	7:6	0.6	tr	bzo	26.44
10.9	2000	9.0	7:17	0.6	-	bco	26.41
11.9	1015	9.0	7.7	0.6	-	em/d	26.47
12.9	1000	9.0	7-7	0.4	0.05	bzo	26.41
					1	4.	