

Leitrim, Eire, 1956

BY DR. E. K. TRATMAN, O.B.E., M.D., M.D.S., F.S.A.

It was decided to explore another limestone area than Clare in 1956. Discussions with Mr. J. C. Coleman about possible untouched areas for exploration led to the decision to visit County Leitrim and the area selected was the Dartry Hills (*Fig. 11*) and the area eastward to the Ulster border. It was already known that the Benbulbin Range to the south-west had been explored by the Yorkshire Ramblers' Club (Anon, 1952), whose work had been followed up by the Sandhurst Caving Club (Stembridge, 1954). Here many potholes varying from 20 to 120 ft. deep had been found but no swallet systems comparable with those of County Clare nor any major rising system as the Marble Arch Cave series in County Fermanagh to the east. No detailed report is available.

Though the Dartry Hills have a more complicated geological structure than the Benbulbin Mountains there are many similarities and it seemed likely that a similar set of potholes would be found in the Dartry Hills. A preliminary reconnaissance was made in 1955 when a number of unexplored potholes were found but not descended. It was noted that the limestone was highly silicified. The geology of the area (*Fig. 12*) has recently been studied by Oswald (1955), who notes the presence of many bands of chert in the upper beds of the main limestone and that the whole was very silicified. There are many faults in the area but only two major ones affect the Dartry Hills, which rise to a maximum of over 1700 ft. and have something of a horseshoe form with the Glenaniff river in a deep valley running from north-west to south-east. The south-west arm of the horseshoe is capped by Glenade Sandstone flanked by Glenade Shale and then by the Dartry Limestone, with patches of reef limestone at the southern end. The belt of limestone between the high levels and the very steep slopes down to the valleys is comparatively narrow. The Ordnance Survey 6-in. to 1-mile maps of these hills are rather misleading as the contouring is not carried above 1000 ft., and the few higher spot levels that are given convey no idea of the complexity of the surface features above 1000 ft.

In July, 1956, the whole of the Dartry Hills was explored in detail but the complex nature of the surface features makes it possible to pass within 100 yards of a large pothole and not see it. So it may be that, in spite of the many hours spent in a spelæological survey of these hills and adjacent areas, potholes have been missed.

a series of shallow blind valleys or basins. In these are innumerable shake-holes where there is Dartry Limestone underneath. Most of them are in peat with no rock exposed in the bottom even when there is a small stream. The shakeholes vary from a few feet across and deep to over 100 ft. across and 30 ft. deep. In the few rock exposures seen the peat rested directly

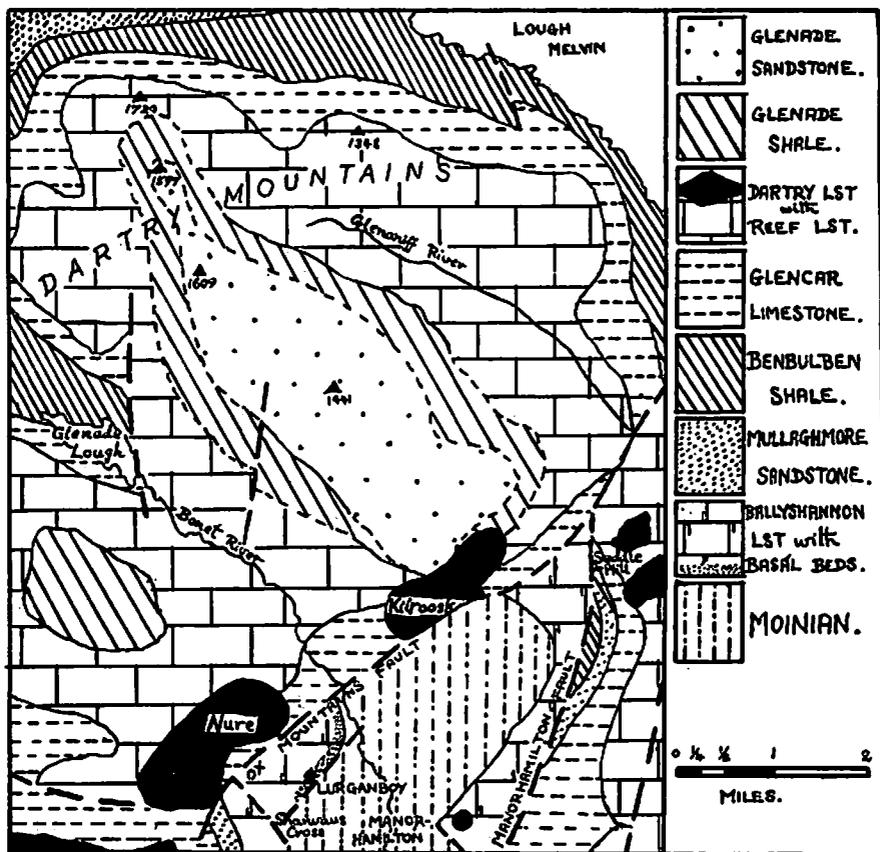


Fig. 12.—Reproduced from the Q.J.G.S. with the permission of the Geological Society of London and Dr. D. H. Oswald.

on the limestone or with only a thin layer of glacial deposit between. It seems likely that some of these shallow basins were themselves once shallow lakes, but that the growth of peat coupled with the development of underground drainage has eliminated them.

A valley of considerable interest is that running north from Leckanarainey. The area contains a fault and some of the special features

may be the outcome of it. In the open mouth of the valley is Wild Cats' Hole, a swallet system a few yards long. Further up, the valley narrows to a horseshoe-shaped limestone cliff, which is considerably undercut at its base. It is about 90 ft. high and about 200 yards long. There is some resemblance in its form to Malham Cove in Yorkshire. A fine section of the Dartry Limestone is exposed. The upper beds with their chert bands are most conspicuous and rest on the massive lower beds. A stream descends on the west side of the head from a narrow gorge that has its bottom about 40 ft. up the cliff face. Just east of this and from the same level water descends from slightly opened joints. The gorge has been examined. It reaches a maximum depth of about 50 ft. in its lower part where it is less than 6 ft. wide. The water issuing from the joints is part of the main stream which has found an underground route a few yards long. Upstream the gorge opens out a little where two tributaries come in, but the main stream can be followed up a still narrower gorge to a waterfall 20 ft. high at the junction with the Glenade Shales. Above this the stream occupies part of the floor of a wide, shallow valley. Presumably the gorge is due, in part at least, to solution along a single set of joints and is cut entirely in the Dartry Limestone. There is no evidence that the gorge was once a narrow cave canyon passage subsequently opened by roof collapse.

BEDDING PLANES AND JOINTS

The upper portion of the Dartry Limestone is thinly bedded with many chert bands to a depth of about 60 ft. and rests on the much more massive beds of grey limestone. The dip is relatively slight but varies from place to place. The bedding planes do not seem to be important in the upper beds as sites for the development of caves. In the lower beds there is evidence from the caves that they are more important. The caves consist largely of vertical shafts or very steep passages descending stepwise. The joint system is obviously more important than the bedding plane in the formation of the caves. There are two main joint systems. One is more prominent and is continuous over longer lengths than the other and has a bearing of 7° (cf. Co. Clare; Ollier and Tratman, 1956, p. 140). The other has a bearing of 107° . In neither case are the joints so conspicuous or so continuous as in Clare, nor is there much evidence of calcite filling indicating relatively tight joints. There is some variation in the direction of the joints in different areas.

Silicified limestone is less soluble than ordinary carboniferous limestone. If, however, water does penetrate down the joints and reaches less silicified beds then solution will be more rapid and undercutting will occur. This effect is seen in the open at Pollacherry but it is also well exemplified in Ramsons and Sulphur Pots (*Figs. 14, 15*) and in several other of the pots

examined, e.g., Pollahotra (8) and Meenagraun Pot (12) (p. 63 and 65). Such enlargement and undercutting of course tends to produce collapse of the upper strata by removing their support and this is obviously a contributory factor in the formation of the potholes. The combination of silicified limestone on the surface and tight joints will hinder the development of caves and surface drainage will tend to persist. These seem to be important factors which have prevented the formation of extensive cave passage systems.

THE WATER-TABLE

The Dartry Hills and the Benbulbin Mountains have relatively flat tops and the descent to the valleys is steep. The water-table is also steep. If the streams go underground they must take a steep course or else they will re-appear on the surface after travelling a short distance, as at Pollacaintrie (10), when the initial pothole is near the escarpment edge. If however the old surface valley makes a relatively gentle descent and the cave follows the valley, it is possible to have a cave of relatively gentle gradient. Colleen Pot (9) is of this nature though the descent is considerably steeper than the valley gradient under which it is formed (Robertson, p. 63). No Name Pot (3) lies in a depression at the head of a shallow surface valley running down north-easterly. There are several earlier points of engulfment in the bed of the valley below the pot. Above it, but still in the same valley, is Ramsons Pot (4 and Lloyd, p. 59), which has developed its own shallow blind valley. This pot, supplied from Lough Adunny, has beheaded the main stream and in it the jointing is the major factor controlling the water-table, which descends vertically a considerable distance as a waterfall.

The water-table has also been altered by the development of underground drainage in the case of the trio of potholes, Waterfall, Sulphur and Sheepfold Pots (5, 6, 7). These have formed near the west end of a large shallow depression, which may once have been a lake draining down a valley to the north-east. There is a dry valley system within the depression related to the various areas of exposed limestone. The first point of engulfment, which took all the waters, is the now dry pothole about 50 yards east of the active Waterfall Pot (5). Fairly soon Sheepfold Pot (7) opened and developed its own blind valley. The active Waterfall Pot opened still later. Sulphur Pot (6) is by far the largest and deepest of the three and the water from Sheepfold Pot runs into it. Whereas both Waterfall and Sheepfold Pots have substantial streams and stream valleys above them, Sulphur Pot lies in the tongue-shaped ridge between them and has only small, short streams running into it. There is no evidence that its water supply has been captured by the development of the stream valleys and potholes on either side of it. Its position appears to be geographically similar to that of Cow Hole and Lancaster Hole, the actual entrance, on Casterton Fell

(Westmorland) with Bull Pot of the Witches and the Easegill Caverns opening from the valleys on either side. The scale is smaller. It is suggested that Sulphur Pot has been formed by solution down a number of joints by trickling films of water, perhaps rendered more acid than usual by dissolved sulphuretted hydrogen, from which the pot gets its local name. Collapse later took place, aided by solution of the lower beds by the water from Sheepfold Pot.

The absence of any main resurgence comparable with the Marble Arch System in County Fermanagh is surprising. The topography of the two areas is dissimilar and is probably the determining factor. In the Dartry Hills the potholes lie fairly close to the edges of the escarpment with its steep descent to the valleys. Such an arrangement tends to preclude any link-up underground of streams from widely separated pots, and each stream will tend to form its own separate rising where the water-table meets the surface. There are a number of such risings. Some fluorescein tests were made to determine the rising linked with Ramsons Pot but without success.

THE AGE OF THE CAVES

Oswald (1955, p. 167) has stated that : " There is an intimate relationship between the geology and topography " of the area. As a generalisation that is correct, but modifications are being introduced by the development of underground drainage. The shallow basins at the heads of valleys seem to be later than the valleys, which in places still contain boulder clay. This may not be older than the Scottish re-advance and certainly not older than the Newer Drift. There is no evidence of glacial infilling in the caves examined. Drainage still persists largely on the surface and is a juvenile feature, though no doubt the silicified nature of the rock and tight jointing contribute to this persistence. There is abundant evidence that under wet conditions the potholes fill up to considerable heights indicating ill-developed outlet channels.

In County Clare to the south it has been argued that the caves are post-Newer Drift (Ollier and Tratman, 1956, p. 156). It is suggested that the caves studied in Leitrim are also post-Newer Drift but as they lie within the area covered by the Scottish re-advance their formation would have been retarded if not actually interrupted by this re-advance. There are some similarities between the arrangement and nature of these Leitrim potholes and of those in Yorkshire and Westmorland. Warwick (1956, p. 125) considers these to be pre-glacial. On the other hand, no evidence has been found in the Leitrim caves, or those of Clare, of the effects of freezing of the ground and its contained water under glacial conditions, and this supports the claim that the caves are post-Newer Drift. However, as the topography prior to the ice age is considered to have been much the same as it is today

in general outline (Charlesworth, 1928), it is not clear why caves did not form in pre-glacial times. The answer to this and associated problems will probably be obtained from a study of glacial and peri-glacial areas of the present day, and especially the zone of permafrost.

SPECIAL CASES

On the eastern arm of the Dartry Hills there is a summit called Sheenun (13). In the western flank of this and some 100 ft. above a shallow basin, with its many shakeholes and old valley running east, are two small caves. They are not quite vertically one above the other. The entrance to each is small, but just inside the lower one the size increases and the section is triangular with boulders on the floor. Each ends blindly after a few feet with a small steeply ascending rift in the roof. Each has small quantities of water coming in through joints in the roof, with the surface only a score or so of feet above. Through the boulders in the floor of the lower one it is possible to discern scalloping. The scallops are fairly large, but the direction of the water flow could not be deduced from the glimpses obtained.

These caves can never have had streams in them under anything like the present day conditions, and it might, therefore, be argued that they must be remnants of high level pre-glacial caves with the rest of the systems destroyed during glacial times. But as glacial conditions passed away the tops of the hills would be first exposed while the valleys still held glacial fill and had frozen rock below. These caves were probably formed at this stage by water seepages through the roofs, the water being held back inside the cave either by the glacial fill at the mouth or by streams running along the edge of the glacial fill and perhaps even flowing into the caves and out again. This seems to be a more likely explanation of the formation of the caves than that they are remnants of pre-glacial systems.

North and west of Dromahair lies Lough Gill. The limestone hills north of this lough are deeply dissected. East and north of the lough lies a mass of Reef Limestone, which includes the flat topped hill of O'Rourke's Table. Below this and close to a col joining another hill lies Poll Ding Dang (Polldonin). It lies in the side of this second hill with only about 40 ft. of rock over its mouth, which is a little above, but downstream from the col. Above the col is an extensive closed basin with a small active swallet at its head away from the cave. About 150 ft. below the col, in the valley steeply descending towards the lough is a rising, which local tradition links with the swallet. Between the swallet and the rising and a little to one side of the direct line is the cave. It consists of a small entrance which soon opens out to allow one to walk, followed by a short passage going first north-west and then north-east to end in a pitch into a chamber which is somewhat U-shaped in longitudinal section. A passage turns back under the pitch

towards the rising, but cannot be followed far. Such indications of water flow that could be observed suggested that the cave was formed under phreatic conditions. No other cave of anything like this size is known in the area. It seems to antedate the present swallet yet to be genetically related to it. But if the cave was the predecessor of the active swallet it is difficult to understand why the water did not go straight down one or other of the valleys on either side of the hill. The explanation given for the Sheenun caves does not fit the conditions here, for if the valley was still filled with glacial material the rock would be frozen for considerable depths and water would not be able to penetrate downwards even if it could penetrate laterally. Perhaps this cave is a remnant of an older system before the present topography was developed. If so then why are there no other similar caves in the area? It is possible that there are others, but none is known.

THE BENBULBEN RANGE

The eastern end of this range was partly examined. A considerable number of potholes was noted. Teampul Shetric (Stembridge, 1954) was examined in some detail and about 200 ft. added to the known length. It is possible that the large spring that rises in Carrickgoonan townland and flows south may be the water from this cave. There are many similarities between this range and the Dartry Hills so that any conclusions drawn about the latter are likely to be applicable to the former. In particular the explanation given for the Sheenun caves probably applies to Dermot and Grania's Bed cave in the west side of Gleniff, which lies in the northern end of the range.

OTHER AREAS EXAMINED

A detailed search was made of Saddle Hill east of the Dartry Hills but no caves were found. A considerable area of the high ground of O'Donnell's Rock and its hinterland was examined. It lies just east of the road from Manor Hamilton to Dromahair. Several short lengths of cave were found. These, Glenboy Caves, Rattle Holes and Brockagh are described below (p. 66). A superficial search was made of the limestone area between Saddle Hill and Kiltyclougher and to the north of that line up to the Ox Mountains Fault. The drainage of the whole of this area seemed to be on the surface. The Cove, the only known cave at Dromahair, was explored (p. 66) and a search made, with no success, of the area north of Lough Gill towards its eastern end.

ACKNOWLEDGMENTS

My thanks are due to all those members who took part in this expedition to Leitrim and to Mr. J. C. Coleman for assistance in various ways, including information on all known references to the caves. Mr. and Mrs. Jeiter of

the Abbey Hotel, Dromahair, made the party very comfortable and gave us all a pleasant holiday. The Geological Society of London and Dr. D. H. Oswald have very kindly allowed me to reproduce a portion of their geological map of the area and for this I thank them.

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MAP REFERENCES TO CAVES DESCRIBED

Cave Name	No. on Fig. 11	6-in. O.S. Sheet number (Leitrim)	Distances from sheet margins in inches	
Poll Ding Dang (Dartry Hills)	1	7	N. 1'3.	E. 2'5.
Poll Mor	2	7	N. 0'2.	E. 1'3.
No Name Pot	3	4	S. 1'6.	E. 1'8.
Ramsons Pot	4	4	S. 1'4.	E. 2'4.
Waterfall Pot	5	4	S. 3'8.	E. 4'5.
Polladuff	6	4	S. 4'7.	E. 5'0.
Pollnagollum	7	4	S. 4'4.	E. 5'2.
Pollahotra	8	4	S. 6'3.	E. 5'1.
Pollathariff	9	4	S. 6'9.	E. 7'3.
Pollacaintrie	10	4	S. 8'2.	E. 8'4.
Poll Dinna	11	4	S. 9'5.	E. 12'2.
Meenagraun Pot	12	4	S. 11'3.	E. 15'9.
Sheenun	13	4	N. 9'2.	E. 1'3.
Pollacherry	14	7	N. 2'2.	W. 15'7.
Wild Cats Hole	15	7	N. 3'6.	W. 15'7.
Rattle Holes	—	12	N. 11'8.	W. 16'0.
Brockagh	—	12	N. 13'2.	W. 6'0.
Glenboy River Cave	—	12	N. 7'0.	W. 5'8.
Glenboy Pig Cave	—	12	N. 7'0.	W. 5'9.
The Cove (Dromahair)	—	15	N. 5'5.	W. 1'8.
Poll Ding Dang (Dromahair)	—	10	S. 7'2.	E. 1'7.
Dermot and Grania's Bed	—	(Sligo) 6	S. 5'9.	W. 4'6.

Some Caves in County Leitrim, Eire

Only unrecorded caves visited by the Society are described. Numbers in parentheses after the names refer to the map (*Fig. 11*). As latitude and longitude are not marked on the 6-in. Ordnance Survey maps of Ireland, locations are given by measurements in inches from the map margins. These are listed in the table on p. 57. References to caves discovered previously are given in the bibliography.

POLL DING DANG (Dartry) (1). *Townland: Gortnacrieve (Fig. 16).* There are two caves in Co. Leitrim called Poll Ding Dang. The more famous (Jameson, 1897) is about 3 miles from Dromahair, and is noted for having been visited by Countess Markievicz, a leader in the Easter Rising of 1916. It was many days, therefore, before we discovered the existence of another pothole of the same name in the Dartry Hills. It lies almost on the town land boundary between Kinkillew and Gortnacrieve, but more into the latter, about on the 1000 ft. contour on the east side of the Dartry Hills at the head of land belonging to Paddy Macewen. This farmer very kindly climbed the mountain with us and showed us the place. A tongue of headland separates it from Lough Adunny and another from the eastern declivity of the range, so that it lies in a little internal valley all to itself, without much catchment.

It consists of two holes, each about 8 ft. in diameter, separated by a bridge. The northern hole is the easier to climb down. The total descent is about 80 ft. The two drops of 8 ft. and 12 ft. are easily climbable without ladders, but a hand line is useful on the latter, owing to its overhang. The general direction of passages below this is south-west and their extent about 80 ft. They end in a mud and boulder choke. A small stream enters an aven to the north and eventually disappears among boulders. The main chamber is decorated with stalactites, and peaty water flows over stalagmite, eroding it to form pretty oyster patterns. In the lower passages are the bones of about six dogs. They probably did not get there accidentally, as it is not unusual to dispose of the corpse of a dead dog by throwing it down a pothole.

O. C. LLOYD, M.D.

POLL MOR (2). *Td.: Gortnacrieve (Fig. 13).* This is a very unstable cave one-third of a mile north-east of Lough Adunny and is in two parts, having separate entrances.

Reference to the plan shows that the cave lies under an east-west spur which is approached from the north by a steep scree slope, 40 ft. deep, parallel to it. At the bottom of this are the entrances to the two parts 100 ft. apart. The West Entrance leads into a low chamber, on the south side of which is another entrance coming from a valley running north-east. This valley carries a stream which sinks just before the South Entrance. The East Entrance is through boulders and leads to a continuation of the entrance slope. After a further slope of 20 ft. there is a 15 ft. pitch into a boulder-strewn chamber. This is a rift, running parallel to the line of the hill, the north wall of which has collapsed forming a boulder pile against the south wall; and from this some twisting passages can be followed to a further depth of 30 ft. The entrance scree slope is also probably a rift similar to that described above. Boulders from it have fallen to the bottom of the slope and have formed the passage, shown on the plan, linking the East and West Entrances.

C. INESON.

NO NAME POT (3). *Td.: Gortnacrieve.* About 200 yards east-north-east of Ramsons Pot is another for which no local name was obtained. It takes a small stream and is about 40 ft. deep. It can be entered from the downstream side through a small gorge. The water disappears through boulders and cannot be followed. The pot lies in a depression in the valley that runs down from Lough Adunny past Ramsons Pot and thence down to the Glenaniff river. Below the pot are several exposures of limestone in the valley bottom with openings. Through one of them a stream can be heard, perhaps the stream from the pot.

E. K. TRATMAN, M.D.S.

RAMSONS POT (4). *Td.: Gortnacrieve-Aghnahaha boundary (Fig. 14).* Ramsons Pot is situated on the southern end of the Dartry Hills at 900 ft. It is fed by a small stream from the south-west and approached from the north-east by a line of sink-holes. The main pot is in a north-south rift at the foot of a depression, which is 60 ft. across and 25 ft. deep. Much of its water comes from Lough Adunny.

The Upper Series.—These consist of various small passages in the upper 25 ft. of shales and limestones, totalling in all about 200 ft. These passages are joint-determined in the general directions of 27° and 107° . The beds are highly siliceous and full of chert bands. The stream runs in from the west, following passages which exhibit good cross-jointing.

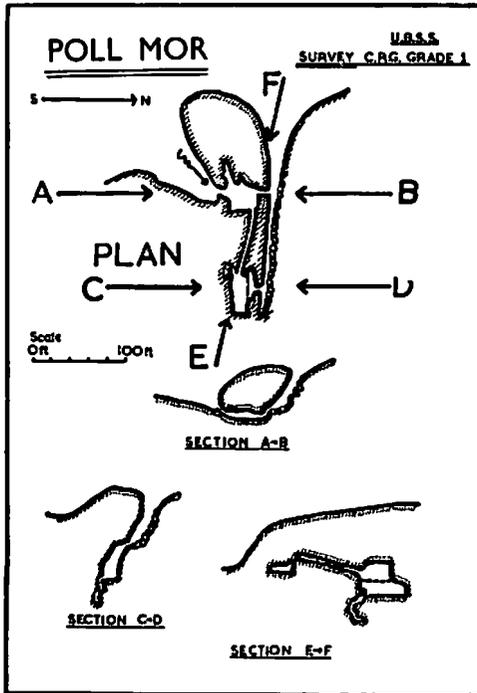


Fig. 13.

The Main Pot.—This is in a north-south rift, the top being 60 ft. long and 20 ft. wide. The pitch is laddered from the west and descends for 112 ft. to a sloping boulder floor. The top 90 ft. of the shaft is in bands of cherty limestone, but this changes to massive limestone at the bottom, which is 230 ft. long and 20 ft. at its widest part. The main stream enters the southern end and a small stream falls inconveniently down the ladder pitch.

The Lower Series.—Entrance is effected among boulders at the northern end of the pot about 25 ft. from the end of the ladder. An unstable boulder ruckle is followed for 50 ft. to the head of a dangerous 15 ft. rift. From a chamber at the foot of the rift a small passage leads away south for 40 ft. to a very wet and unpleasant 20 ft. ladder pitch. This descends into the Water Chamber where the way on is through a very heavy waterfall and down a 10 ft. descent into the final P.P.P. Chamber.

The form of this chamber is very different from that of the rest of the cave. It is approximately 200 ft. long and rises in three steps from north to south. It is divided into a lower northern and upper southern part by a boulder pile at the bottom of the 10 ft. descent. The lower chamber is 80 ft. long, 10 to 15 ft. high and 20 to

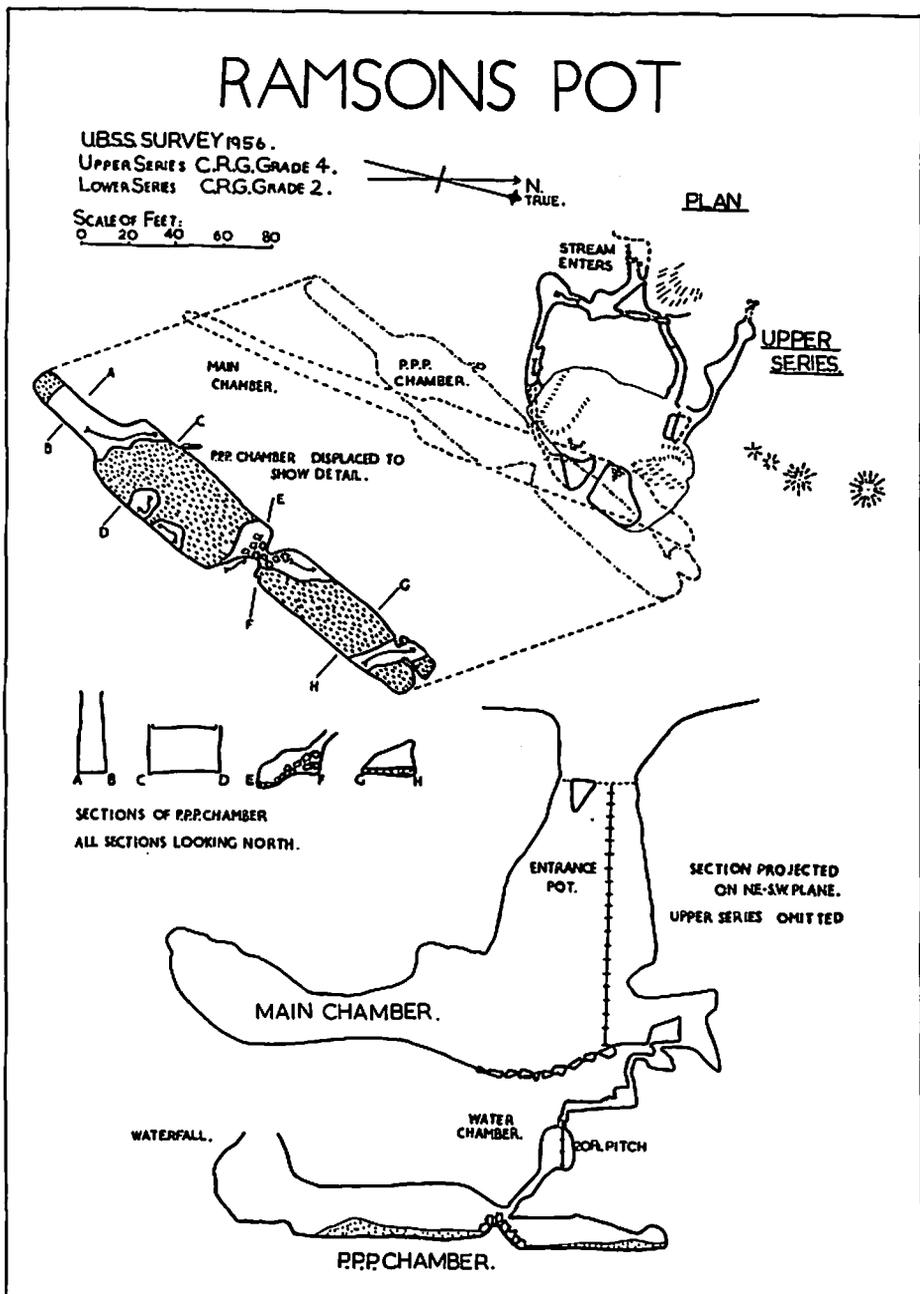


Fig. 14.

25 ft. wide. The floor is covered, as it is in the whole chamber, by a thick bed of sand. Two streams entering under the eastern wall have cut channels through this and sink against the western wall. The floor of the upper chamber is 10 ft. above that of the lower and this part extends for 120 ft. It is generally 30 ft. wide and 20 ft. high, except for the last 40 ft. where an aven enters. This aven is 40 ft. high and a waterfall descends from it. Three streams appear in this section and behave similarly to those in the lower chamber. The roof is of solid rock and two parallel cracks 1 to 6 in. wide run along the roof at the junctions with the walls (*see* section C D). The limestone is highly siliceous, with chert ledges appearing as a secondary feature. The walls were covered with a thin layer of silt and froth.

The lowest point of the P.P.P. Chamber is 225 ft. below the moor level and 240 ft. below the highest point in the Upper Series. Ramsons Pot is thus one of the deepest in Ireland, surpassed only by Noon's Hole (250 ft.) and Reyfad Pot (230 ft.) in Co. Fermanagh. Faunarooska (Co. Clare) is certainly deeper than any of these but it has not been completely surveyed. As Ramsons Pot was explored in near-flood conditions there is a possibility of passages between the Main Chamber and the P.P.P. Chamber having been missed.

The Upper Series was surveyed to C.R.G. Grade 4 and the Lower to Grade 2, all that could be obtained under these conditions.

B. R. COLLINGRIDGE.
C. INESON,
G. D. WITTS.

WATERFALL POT (5). *Td.: Aghnahaha-Corlea boundary.* To the east of Sulphur Pot another stream of moderate size sinks at Waterfall Pot, and further down the valley lies a larger dry open pothole which was once the sink. The wet entrance pot is about 10 ft. in diameter and about 6 ft. deep at the point where the stream falls into it. The water sinks into the boulders immediately but soon reappears and follows a passage opposite for 25 ft. before sinking finally under the east wall. A few feet beyond this point lies a T-junction; by following the right-hand passage, which descends gradually past several heavily silted cross joints over a length of 110 ft., the dry pot already mentioned is reached. This is some 20 ft. in diameter by 15 ft. deep and floored with loose boulders. Some fissures on the north side soon choke but a passage about 50 ft. long continues to the east. The lower part of this is a narrow bedding crawl which steps down in several places into successively lower cherty beds and eventually becomes too low for further progress. Although a distinct draught was felt, the abundance of silt on the floor leads one to suppose that even under flood conditions there is little flow through it. There is also a short upper extension, containing a number of calcite formations deposited round roots. The whole cave showed signs of flooding completely in wet weather.

ROSEMARY S. MINES, B.A.

SULPHUR POT or POLLNAGOLLUM or (?) POLLADUFF (7), and SHEEPFOLD CAVE or POLLADUFF (6). *Td.: Corlea (Fig. 15).*—Around the junction between the townlands of Corlea and Gortnagrieve in the Dartry Hills lie three swallets—Sulphur Pot, Sheepfold Cave and Waterfall Pot. These mark the beginning of the establishment of underground drainage in the area and are formed by three streams which once flowed on the surface.

Sulphur Pot, so called after the sulphur-smelling stream in the vicinity, is the centre one of the three. It is a large open pothole fed by four streamlets all of which increase rapidly in wet weather. A hundred feet of ladder is necessary for the descent to the floor of the Main Chamber, the most suitable belay point being a sturdy tree on the east side. The climb is mostly in free space and can be done in daylight. The highest point of the floor is at the foot of the ladder, 96 ft. from the surface, and the lowest is about 10 ft. further down. On the south side of the Main Chamber is a very loose boulder slope and the whole floor is strewn with boulders. The water from Sheepfold Cave pours down from roof level in the north-west corner, dropping about 40 ft. to form the stream which flows across the floor towards the middle of the east side. The lowest point in the cave is reached by a climb down through the boulder floor close to the east wall and just south of the point where the stream sinks. Below the boulders the character of the cave changes completely: the walls are now of solid pale grey limestone fluted to razor edges by trickling water. The end is a narrow rift which chokes completely, approximately 140 ft. below the entrance.

There are only two other minor passages worth mentioning. One is a rift in the south-west corner of the Main Chamber, formed by a pillar of rock slipping away from the wall and leaving a fissure 15 in. wide. It runs east and west and is only 9 ft. long and 13 ft. deep. In the south-east corner is another rift between the wall and a detached flake of rock. It is reached by a traverse on the east wall and is 18 ft. deep.

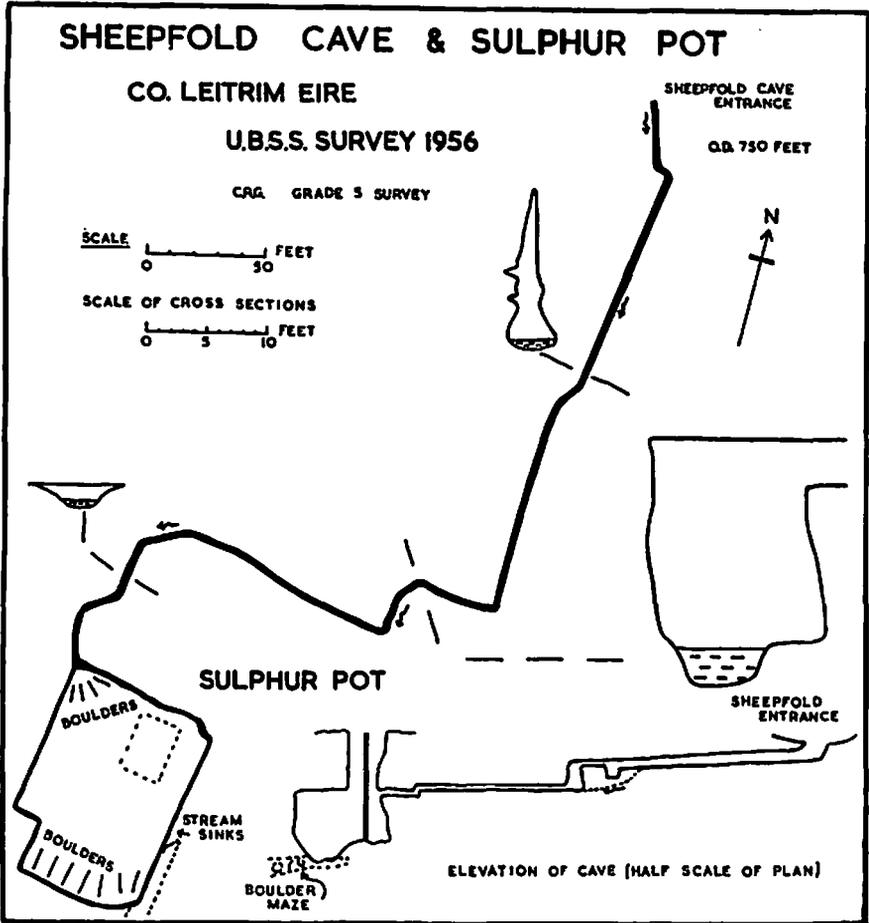


Fig. 15.

Sheepfold Cave lies to the west of Sulphur Pot and is occupied by the stream which eventually flows into the north-west corner of the latter. The entrance is large, easily accessible and apparently well known to the local people for it was used as a place for an illicit poteen still, under British Government! The stream continues along a narrow rift which widens out at water level. There are numerous chert nodules on the walls and large patches of fossil corals on the ledges. After about 130 ft. the stream disappears in a pool on the floor. The passage rises slightly and a T-junction is reached where the noise of the stream can be heard through a narrow hole to the left. This, however, leads only to a small chamber where the stream

sinks again in the floor. The main streamway is reached by turning right at the junction and climbing down a drop of 12 ft., using unsafe chert projections; the stream reappears in a knee-deep pool at the bottom of the drop. There follows a low crawl with the stream, passing through a cross rift chamber, until finally the north-east corner of Sulphur Pot is reached with a 40 ft. drop to the floor.

The plan of this system is considered to be to C.R.G. Grade 5, but as the relative heights of the entrances were not determined on the surface the accuracy of the elevation is more doubtful.

ROSEMARY S. MINES, B.A.

DRY POT or POLLAHOTRA (8). *Td.: Corlea.* This is an isolated, walled-around pot which consists of a 35 ft. drop on to the sloping, boulder and rubbish-strewn floor of a small flat-roofed chamber. The chamber is 25 ft. long, 23 ft. wide and 18 ft. high. It is necessary to use a ladder to enter the cave.

D. A. S. ROBERTSON.

COLLEEN POT or POLLATHARIEFF (9). *Td.: Aghnahoo.* This cave is situated in the highest of a series of shallow blind valleys present in the floor of a continuous surface valley. Two oval pots, separated by a bridge of limestone, are formed in the line of a rift running west-north-west and east-south-east. The upper pot can be entered on the north side but a vertical drop under the bridge prevents access to the lower pot which can be climbed without difficulty at the downhill end. A steep slope leads to a level floor 30 ft. below the surface and the cascade from the upper pot is 50 ft. from the foot of the slope. The stream enters a rift passage at the western end of the pot and, after a drop of 5 ft., follows the passage for 60 ft. in a north-westerly direction until it reaches the final chamber at a point 25 ft. up its eastern wall. The floor can be reached by climbing down the side of the south wall. The floor is covered with large boulders and the stream sinks amongst them at the foot of the south wall. The north wall recedes to give a width of 22 ft.; the length is 55 ft. and the height is estimated to be 40 ft. Unidentified cylindrical concretions, up to 7 in. in diameter, in the limestone are the only interesting features of this stark, unstable chamber. The total underground length of the system is 115 ft. and it reaches a depth of 77 ft.

D. A. S. ROBERTSON.

POLLACAINTRIE (10). *Td.: Aghnahoo (Fig. 16).* This is a series of three potholes at the head of a valley running north from the Dartry Hills towards Glenaniff. The southernmost is 27 ft. deep and is entered by a stream from the south-west. It is an easy climb down the waterway by a series of steps and pools, like the "Double Pots" in Swildon's Hole, but shallower. At the cave entrance is a low, solid lintel, 4 ft. high, where a north-south joint is encountered (bearing 176°). This forms a diverticulum at the south end, but at the north enters a small passage with a pool 2 ft. deep in the floor, which disappears under a low duck and continues for about 20 ft. The total length of this rift is about 50 ft. The stream disappears into the north-east wall face in an impassable boulder choke. It emerges in the northernmost pothole about two-thirds of the way down a 60 ft. cliff by a hole 2 ft. in diameter and falls into a large shakehole with a boulder floor and no way on. On the west side the bank of this floor is formed by laminated river gravel and mud, which suggests that this shakehole has at times been full of water.

The middle pothole, about 18 ft. deep, can be entered at its northern end and has a steep boulder floor sloping for a further 20 ft. to the south before darkness is encountered. It then drops over a 4 ft. artificial wall, and a further 20 ft. brings one to the end of the cave (bearing 176°). The local people do not go down caves, as they are afraid of disturbing the fairies, so that this artificial wall was a mystery, until enquiry elicited the fact that it was built during the "troubles" to provide a hiding place for "boys on the run". It never had to be used for this purpose, however. A small rising passage to the north contains the skeleton of a dog partly covered by stalagmite.

O. C. LLOYD, M.D.

ASTHMA POT or POLL DINNA (11). *Td.: Gorteenachurry.* The 40 ft. entrance pothole is a rift running north and south, 6 ft. wide at the top and 60 ft. long. At the bottom it is 15 ft. wide and passages continue from both ends. To the north the cave extends for 60 ft. The first 10 ft. is a continuation of the rift, being 15 ft. high with a

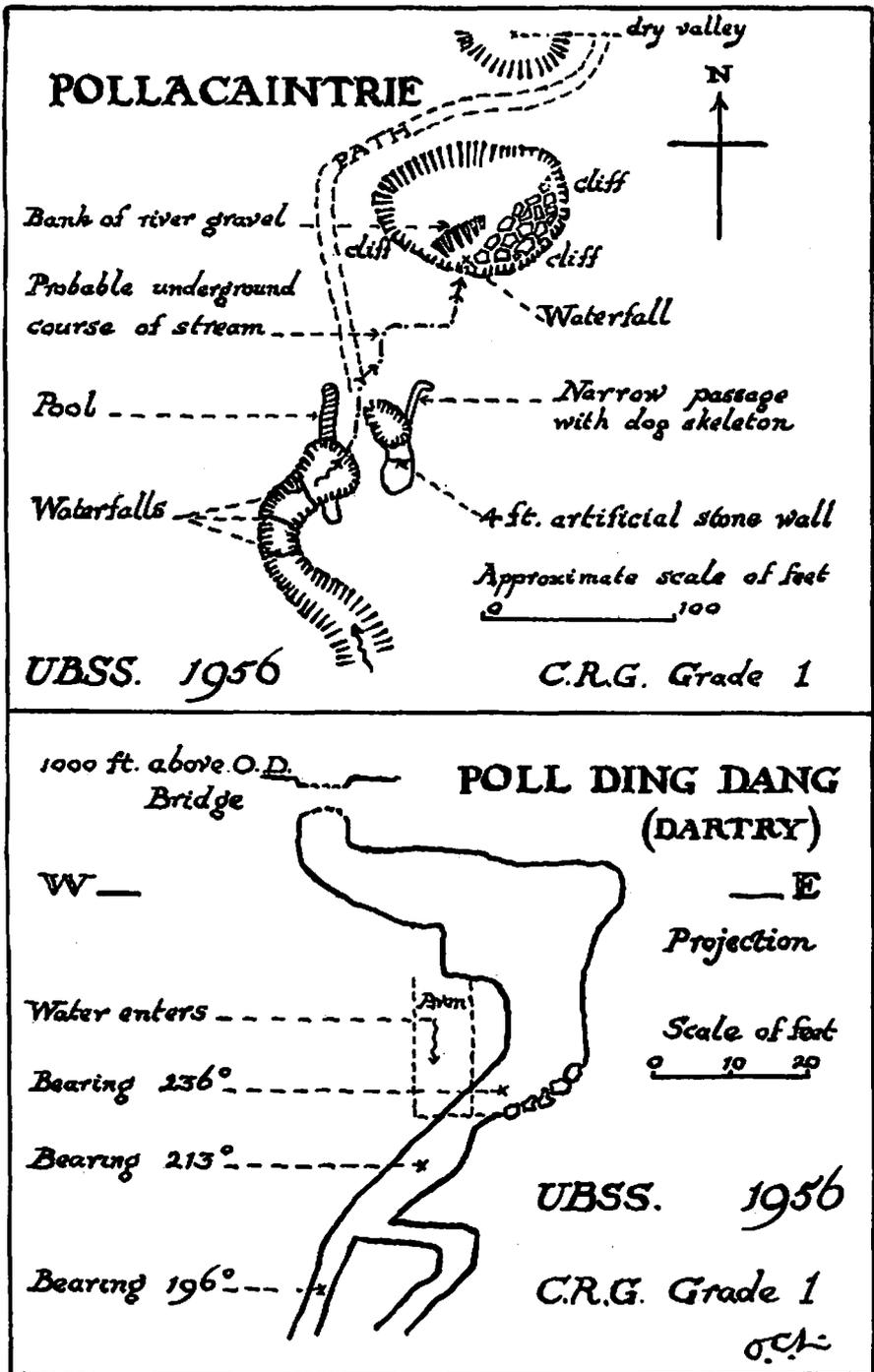


Fig. 16.

30 ft. aven corresponding to a 4 ft. depression on the surface. The passage then drops 10 ft. in a miniature pothole and continues horizontally as a low crawl some 18 in. high and 10 in. wide. After 15 ft. it expands again into the final chamber which is 35 ft. long and up to 8 ft. high. South of the entrance shaft, the cave continues for about 15 ft., leading to an impassable vertical squeeze. Through this there can be seen a small chamber about 10 ft. long, parallel with the main rift. There was no stream in the cave at the time of the visit, apart from a very heavy drip at the entrance which soaked away through the floor immediately. If one should flow, however, it would run north and probably sink among boulders at the far end of the constricted passage.

Many empty tins of an asthma cure were found at the bottom of the pot.
C. INESON.

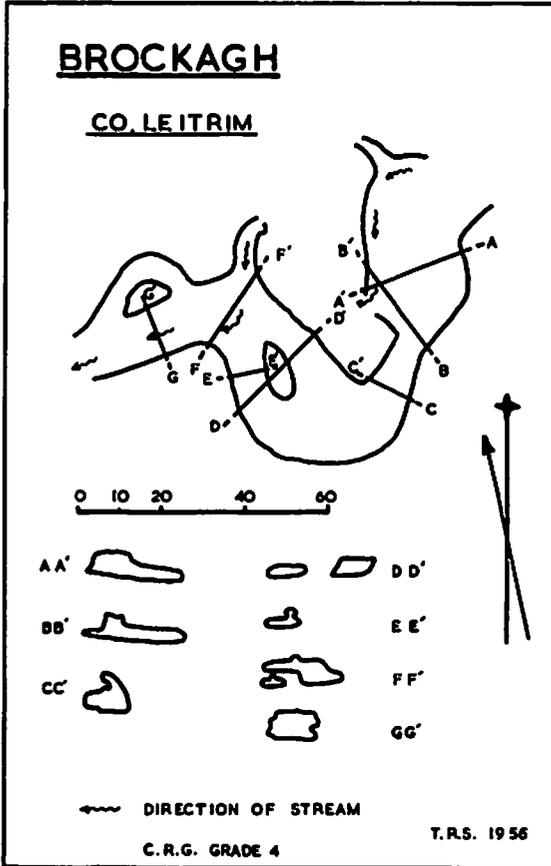


Fig. 17.

MEENAGRAUN POT (12). *Td.: Meenagraun.* This is a dry pot surrounded by a wall. It is roughly circular with a diameter of about 30 ft. and a depth of about 35 ft. The sides are sheer to a boulder strewn and largely grass covered bottom with no way on. To the south about 50 yards away is a very deep depression with a stream running into an impassable swallet at the limestone/shale junction. The swallet and the dry pot must obviously be connected, but, unlike the middle pot of Pollacaintrie, this pot can hardly have served as an earlier swallet to the system. Presumably it has been formed by collapse. There is a permanent rising about 250 yards away to the east-north-east.
E. K. TRATMAN, M.D.S.

RATTLE HOLES. These are a series of parallel rifts which run north-west to south-east in the Yoredale sandstone on the scarp face. They are partially blocked by earth and rocks and the deepest is only 30 ft. They appear to be similar to the Ryedale Windypits in that they are formed by the sandstone slipping down from the edge of the plateau.

D. A. S. ROBERTSON.

BROCKAGH (Fig. 17). This is one of the two caves near Gortnalibbert where a stream, the Scardan River, passes through a bluff of limestone by a passage which is accessible from end to end. The total length of the winding stream passage is 148 ft. and the cave is rarely more than 5 ft. high. A series of single half tubes in the roof have been modified only slightly by vadose scalloping and indicate a mainly phreatic origin with a later widening below under vadose conditions. When the cave was first occupied by a stream it followed the joint passages (bearings 37° and 140°); later it swept outwards on the bends and cut down in places to a lower level, leaving dry ox-bows. A few ribs of calcite have formed on the roof.

T. R. SHAW.

GLENBOY RIVER CAVE. The other cave near Gortnalibbert where a stream follows an accessible passage right through a limestone bluff is the Glenboy River Cave. It is in the middle of the village of Glenboy and again it is the Scardan River which flows through it, this time further down its course. The water comes in from the north, flowing swiftly at the entrance where it is only a foot or so deep, but farther in it is deep enough to necessitate swimming. At the southern end of the cave there are two entrances; one is at the end of the straight main passage and the other opens into the side of this passage some 40 ft. from the other. The total length of the cave is 122 ft. and the cross-section is generally triangular. No other measurements were taken in 1956, but the figures given by Faughnan (1943) seem reasonable. At the northern entrance he gives a width of 25 ft. and a height of 12 ft., diminishing to 12 ft. by 6 ft. at the southernmost exit. The width of the side opening he gives as 15 ft.

T. R. SHAW.

GLENBOY PIG CAVE. This is a small stream passage opening on to the east bank of the Scardan River about 80 ft. downstream from the east (side) rising of the Glenboy River Cave. It is about 160 ft. long and runs roughly north-west from the river under the farm and road. The first half consists of a crawl in a noisome stream which smells strongly of pig. The second half is a crawl over cracked mud. There is a single side passage on the north side about 120 ft. from the entrance, which ends under a boulder ruckle. The cave is near the surface, as a horse and cart could be plainly heard passing overhead.

D. A. S. ROBERTSON.

THE COVE. *Td.: Dromahair (Fig. 18).* The entrance to this cave is about a mile north of the Protestant Church in Dromahair. To the north of it lies Lough Nahoo, about 600 by 200 yards, and the waters of this go into a narrow channel at the south end and enter an impressive limestone arch, about 12 ft. high, in the middle of a cove-shaped cliff. The water at the entrance is about 5 or 6 ft. deep and very slow moving. The archway leads to a canal which runs through a vaulted passage some 15 to 20 ft. high and ends in a sump 67 ft. from the entrance. It is said that in the drought of 1955 the water was very low, and iron rods were thrust into the floor a few feet inside the archway to loosen the boulders. This caused the water to sink at this point with a loud roar. The floor is now muddy. Fluorescein was put into the water at the inner end of the main canal on July 13th, 1956, but no trace of a resurgence was observed during the following week.

At the foot of the west wall of the cove, on a bank 12 ft. above water level are two little cave entrances which lead to a chamber 9 ft. high with a pool 2 ft. 6 in. deep in its floor. The east wall of this chamber is composed of fallen boulders, very much like the south wall of Read's Cavern on Mendip. Exploration did not reveal the source of the water in the pool, which is at the same level as that in the lake. The dip of the rock is gently to the south, and the principal rifts lie south-west. The survey was made with an old linen tape measure, an army prismatic compass and a little guesswork. No more than C.R.G. Grade 3 is claimed.

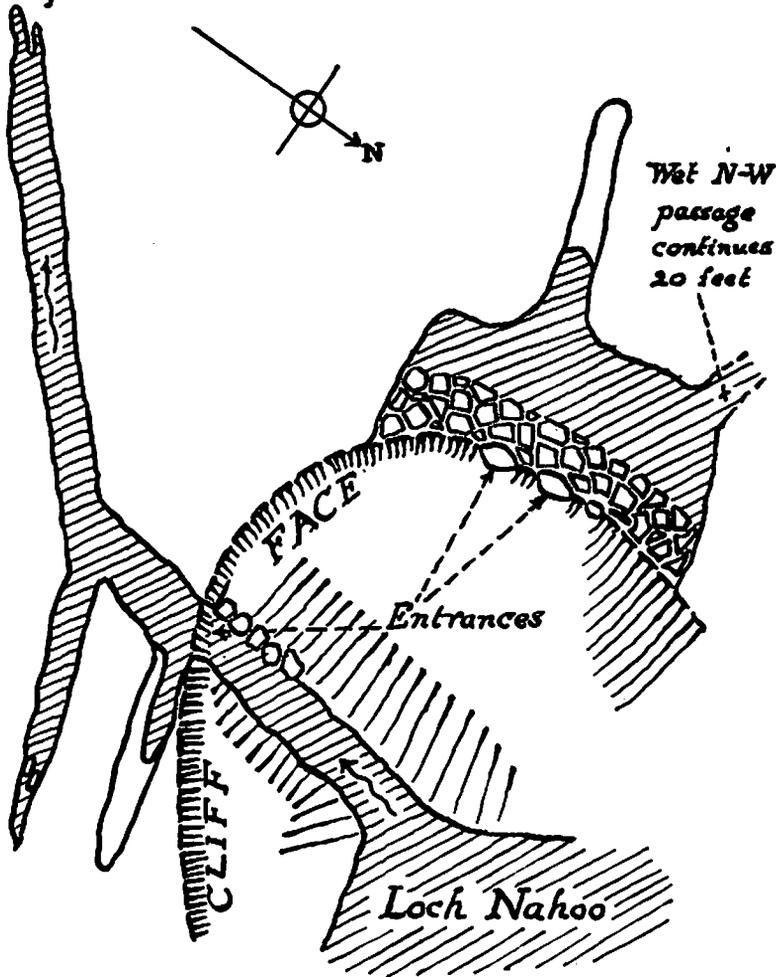
O. C. LLOYD, M.D.

THE COVE

Dromahair, Co. Leitrim

Scale of feet
0 10 20

Sump



UBSS. Survey, 1956, C.R.G. grade 3

Oct.

Fig. 18.

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