

Jubilee Contribution
University of Bristol Spelæological Society

History of the University of Bristol Spelæological Society

By

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In an issue of *Proceedings* devoted mainly to the history and achievements of the U.B.S.S. it is necessary to define the aims of a paper called simply "History of the U.B.S.S.". They are two-fold: to trace the development of the Society as a whole; and to record its cave work in Mendip and all areas except Ireland. Here it must be noted that the objectives of the Society at its foundation were "*The discovery of caves and the examination of their contents*". Other objectives were added later. The activities of the Society have been varied. They have included the discovery of caves, archaeological excavations, the development of a museum and library, the holding of lecture-meetings and the establishment of a field headquarters. The detailed treatment of some of these activities has been left to others.

BRISTOL SPELÆOLOGICAL RESEARCH SOCIETY

Although the U.B.S.S. itself was not founded until 1919, its predecessor the Bristol Spelæological Research Society came into existence seven years earlier. The Great War interrupted the activities of this first group and when its members came together again after the war they became the University society.

The four schoolboys who were later to form the B.S.R.S. did their first caving together in 1908, exploring the disused mines at Dundry.¹ These four were Lionel Stanley Palmer ("Leo"),² Reginald F. Read,³ Reginald Essery and Edward K. Perdue. With some others they formed the B.S.R.S. in the spring of 1912.⁴ The object of the new society was to study spelæology more scientifically than previously. The President was Prof. S. H. Reynolds, then professor of geology at the University; the first Secretary was Leo Palmer.

Four main projects were undertaken: clearing the rubble out of Plumley's Hole*; re-exploration of Lamb Leer; measurement of the rate of evaporation in Lamb Leer and in Eastwater Cavern; and an archaeological excavation in Aveline's Hole.

The attempt to open up Plumley's Hole was continued from 1912⁵ to 1914. A bucket cable-way was erected and many tons of stones removed together with a large tree-trunk and some recent horse bones. A depth of about 12 m. had been reached when the war intervened. The U.B.S.S. restarted the excavation in 1919 and again in 1920 and continued yet again a few years later, but ultimately it was abandoned because its site was close to the road and many stones were thrown down the shaft by trippers. In 1924 the top was covered by a manhole cover and a thin coating of cement. The cave was reopened temporarily on August 18th, 1946. Rock falls have since hidden it.

The descent of Lamb Leer necessitated making a rope ladder and it was perhaps for this reason that it did not take place until August 1913. Although rope ladders had been used on the continent and in Yorkshire for many years, this appears to be the first instance of their use in Mendip; Balch's work had previously been done on single ropes. The exploration was by no means an easy one for the timbering of the 1880 entrance shaft had collapsed. Opportunity was taken to install the new B.S.R.S. apparatus for measuring the rate of evaporation in the cave, consisting of a calibrated glass jar with a metal cover; the cover for the Lamb Leer jar was dated August 16th, 1913. In 1934,⁶ "It was noted that evaporation tanks placed in position in this cave by the Bristol Spelæological Society in 1913 show no loss whatever by evaporation."

Similar evaporation tanks were installed in the First Rift Chamber of Eastwater on December 26th, 1913 by a combined party with the Mendip Nature Research Committee.⁷ The lower parts of the cave were visited on the same day, for the first time for five years. Ladders "were used for the first time [for this cave], and one is bound to say they introduce a degree of comfort in the descent and return, quite absent from the strenuous rope work of other days. Yet the fatigue of transport is great." It was on this occasion, too, that Jack Brownsey of the B.S.R.S. forced a squeeze at the bottom of the cave and entered the passage which bears his name. The evaporation tanks were examined again in 1922 and, unlike those in Lamb Leer, "even in that saturated atmosphere evaporation is proceeding".⁸ No further record was made until, on February 21st,

* The N.G.Rs. of the Mendip sites mentioned in this history are given in the appendix. See also *Fig. 4.—Ed.*

1954, O. C. Lloyd reports⁹ "the crumpled remains . . . were removed, as they were no longer in a condition to be useful."

The excavations by the B.S.R.S. in Aveline's Hole took place in 1914 and perhaps in the two previous years also.¹⁰ Palæolithic human skulls, other human bones and animal remains were found. The results were not published in full but two accounts of this pre-war work did appear in *Proc. U.B.S.S.* after the war. Further details are given in a manuscript extract by Palmer from the lost log book of the B.S.R.S.¹¹

1919-1929

When the former members of the B.S.R.S. returned from war service they planned to continue with the Aveline's Hole excavations. In view of the obvious importance of their previous finds the owner of the cave, Mr. G. A. (afterwards Sir George) Wills decided that further work should be continued only by a society formed under the auspices of the University. Only one of the B.S.R.S. members (Palmer) was at the University at this time and he took the necessary steps to form such a society. After consultation with Prof. Reynolds (who had been President of the B.S.R.S.) and Prof. Edward Fawcett¹² (soon to become the first President of the U.B.S.S.) it was decided as a first step to recover all the remains that had been excavated before and which had been kept by a former member acting as temporary secretary during the war. After several vain attempts to remove these to the University, Prof. Fawcett, Mr. Secombe Wills and L. S. Palmer called on the custodian who then brought up the bones from a well in his garden where they had been hidden.

Before the new society was founded a preliminary meeting was held on Tuesday, March 11th, 1919. Prof. Fawcett presided and "A brief but interesting account of former explorations of these caves was given by Mr. Palmer, a member of the old Society, who also outlined a scheme for future operations."¹³ A further meeting to elect officers and formally to inaugurate the society as the University of Bristol Spelæological¹⁴ Society took place on March 19th.¹⁵ At one or other of these meetings, probably the earlier one, the pre-war finds from Aveline's Hole were exhibited.¹⁶ It was agreed that former members of the B.S.R.S. would be eligible for membership of the new society, whether or not they were members of the University. Women students could join equally with the men.

The society's first museum-cum-library was one small room, formerly the Officers' Training Corps ammunition store room, sited down some steps leading from the path between Woodland Road and University Road (Museum 1 on the map, *Fig. 2*). It was acquired in the autumn of 1919, repaired, wired and decorated by members and fitted with shelves

1919-1920.

Officers.

Hon. President.
 GEORGE A. WILLS, Esq., L.L.D., J.P.

President.
 Prof. E. FAWCETT, M.D.

Secretary.
 Mr. L. S. PALMER, B.Sc.

Treasurer.
 Miss N. RICHARDS.

Committee.
 Mr. M. CRITCHLEY.
 Dr. O. V. DARBISHIRE.
 Mr. R. ~~ESSEBY~~ ^{195 J. HAYES} B.Sc. A.I.G.
 Mr. P. ~~PHILLIPS~~ ^{195 E. TRATMAN} M.Sc.
 Mr. R. READ.
 Mr. J. H. SAVORY.

Member's Name



Fig.1. Membership card for 1919-20

(From an original lent by K. M. Crook)

and display cases. At the 1920 A.G.M., held on March 12th, the Museum room was put under the control of a separate Speleological Club within the Society with an independent subscription of two shillings per year. This was for administrative reasons associated with the presence in the Society of non-University members. E. K. Tratman was appointed the first Club Secretary while still a committee member of the main Society. The existence of the Speleological Club as a separate entity seems to have lapsed about 1922. But the Museum continued strongly. In June 1922¹⁷ it was reported that "... if the number of finds per expedition is kept at its present high level, the Society's Museum, already somewhat congested, will be quite crowded out." In fact a new museum was acquired in the following year (p. 17).

The first recorded field work of the new Society¹⁸ was a "preliminary tour of inspection" of the Burrington swallets and caves on April 18th, 1919, investigating the sites which would later be Read's Cavern, Drunkards' Hole, Rod's Pot, etc. Goatchurch was explored on April 19th, and on the 21st the Society's first cave dig was begun, at Elephant's Hole.

The first Summer Camp at Burrington lasted a fortnight during

July and August 1919. E. K. Tratman recalls it as follows:¹⁹

“the late Sir George A. Wills . . . gave permission to us to use the field where the hut now stands as a camping site . . . it was the first flat field adjoining the common available and it was not too far from what was then the gamekeeper’s cottage where there was a water supply . . . the bell tents . . . [were] carried up . . . from the railway station . . . Over the trench fire we managed to cook for up to 20 persons though we did sometimes get a joint cooked at the cottage for 6d.”²⁰ (*Plates 1B and 2A*.)

The next camp was held on the last day of 1919 to erect a hut on the camp site. It had been a women’s small sports pavilion at Bower Ashton, and was bought for the Society by Prof. Fawcett for £5. It was dismantled, transported by lorry (then a rare means of transport) to Burrington and re-erected, but “daylight was fading and it was snowing hard when the roof was put on. This led to it being done in a hurry and the roof went on a bit crooked.”²¹ It still is. Then the First New Year Party was held in the Burrington Parish Room. Thereafter there has been a party at the hut every new year even through the war (*Plate 1A*).

“We had one of the present collapsible tables and two forms, some Primuses and oil lamps, cooking gear (members provided their own cups, plates, cutlery etc.); all these had to be placed outside to make sleeping room at night.”²² There were lockers along the back of the hut leaving a width of only 2 m. in which to lie down. Nevertheless eight people used to sleep there. The hut remained in this form until 1921 when the first of many extensions was added. It still remains as the nucleus of the present Hut. The trench fire outside was generally used for cooking (*Plate 2A*).

The first important archæological excavation undertaken by the Society was at Aveline’s Hole, in continuation of the earlier Bristol Spelæological Research Society work. It started on June 14th, 1919²³ and continued until about 1933. A series of detailed reports was published in *Proc. U.B.S.S.* and the excavation is treated at greater length elsewhere in this issue (*Plate 3*).

The penetration of Read’s Cavern was another of the Society’s first tasks. Digging was started there in August 1919, during the first summer camp. Some 20 tons of material were removed from Swallet E, the then dry east swallet in front of the cave, and on September 13th entry was made into a 9 m. deep rift. It appeared not to lead anywhere and the entrance to it collapsed shortly after the four explorers had emerged. Reginald Read, meanwhile, had started to dig in the loose rock closer

to the cliff and before very long a tiny opening had been cleared which led through a tight and unstable squeeze into the Main Chamber. Only E. K. Tratman entered this on the first day but on the following Saturday a larger party went down including R. F. Read and B. A. Crook. The discovery on this day of four bronze bands and a small iron sickle was the first intimation that the cave had been occupied in the Iron Age. The subsequent excavations lasted until 1925. A survey was carried out at an early stage and the walls of the Main Chamber marked to correspond to the gridding on the plan.²⁴ Several more passages were found as the work continued, the most important being "Z" Alley. The first part of this was entered in September or October, 1919, and by 1922 it was explored to below the waterfall; an extension at the bottom was discovered early in 1946. For the first few years the cave was known as the Keltic Cavern; but the Ordnance Survey did not accept this name and about 1921 it was renamed Read's Cavern, after the discoverer (*Plate 2B*).

Another of the early archæological excavations took place at Rowberrow Cavern. This started on May 1st, 1920 and continued until about 1927. Over 230 tons of material were moved. Work was interrupted between August 1923 and the spring of 1924 because the owner, Major Leacroft, refused permission for the excavation to continue. It appears that the first three years' work had been carried out without his knowledge.

These three caves, then, were the scene of most of the hard work done by the Society in its earliest years—Aveline's, Read's and Rowberrow. But the bigger caves at Priddy were not ignored and members took part with Balch in exploratory work at Swildon's Hole. Visits are recorded for June 7th and 9th, 1919, August 1st, 1921, November 12th, 1921 (when E. K. Tratman discovered the high level chamber now known as 'Tratman's Temple'²⁵), December 23rd, 1923 (a photographic party) and on many occasions since. Eastwater was not visited so much but for one visit there in 1920, either on August 1st²⁶ or (more probably) August 2nd²⁷. Balch²⁸ reports, ". . . an invitation was given to the Bristol Society to visit and a large party including three ladies, availed themselves of the offer. The conditions were bad, the water at the danger point being very troublesome, constantly extinguishing the lights . . . The bottom of the second vertical was reached, all three ladies reaching that point . . .".

This well illustrates one aspect of the relations between the newly formed U.B.S.S. and the already existing societies of similar scope. On the one hand was the only other cave exploration society in the area, the Mendip Nature Research Committee, and on the other hand were the several local natural history and archæological societies. Just as some expeditions were undertaken at the invitation of the M.N.R.S., so Balch,

his brother Reginald and his nephew, were shown over Read's Cavern on August 9th, 1920. On the following day the University members saw Balch's work at Ebbor Gorge and he also showed them over the Museum in Wells. All this is consistent with the formal courtesy of the time; what is interesting now is that an attempt seems to have been made to restrict the area in which each society would work. In 1913 Balch had written²⁹ of "... the new Bristol Society, with whom it is intended to co-operate in such work [i.e. cave work] in the future, for which purpose Mendip will be mapped out into 'spheres of influence'." Johnson³⁰ states that the B.S.R.S. had in fact been requested to confine their activities to the Burring-ton area. He goes on to say that at first the U.B.S.S. reluctantly refrained from digging at the Tynning's Farm swallets for this reason. "However it so happened that an M.N.R.C. member, J. Harry Savory, who was also a member of the U.B.S.S., started excavating at a rock shelter [near Tickenham, where he lived] on the northern side of the Blackdown early in 1920. The U.B.S.S. considered this to be a violation of their agreement with the M.N.R.C. and decided to go caving on the southern side of the watershed. . . ."

In the same way that the cave-exploring activities of the Society could have been regarded as competing with those of the M.N.R.C., so it would have been possible to see their archæological work as being to some extent in potential rivalry with that of the old established county society, the Somerset Archæological and Natural History Society. Sir C. Hercules Read, the then President of the Society of Antiquaries, said in 1921,³¹ "Would it not be well and possible for the Somerset Society, instead of falling upon these piratical invaders and destroying them, to join forces with them. . . ?" If relations had been strained in these early years they were clearly restored by 1925, for the U.B.S.S. library received gifts of books in that year and afterwards from Mr. H. St. George Gray, the secretary of the Somerset society.

L. S. Palmer had already, on July 20th, 1920, read a paper to the Somerset Archæological and Natural History Society on the excavations at Read's Cavern.³² In July, 1922, one of the excursions of the same Society visited Aveline's Hole. "The members gathered round the cave's mouth and Mr. [J. A.] Davies spoke to them from a ledge of rock above" but "further remarks were stopped by heavy rain."³³ Davies had the last word however, for his remarks were printed in their entirety in the Proceedings of the Somerset society.³⁴

Relationships with other societies were less complex. A joint meeting with the Bristol Medico-Chirurgical Society was held on November 10th, 1920,³⁵ and members lectured at meetings of the British Association³⁶ and the Bristol Naturalists' Society.³⁷

On May 25th, 1921, Professor Sollas, Dr. Marett and Mr. Miles Burkitt were among those who visited Burrington to see some of the work of the Society. This visit was also made the occasion of the formal opening by Prof. Sollas of the Society's bath. This had been built in the Bath Swallet depression, of bricks carried up by hand from the valley below.^{38,39} There had been a bath of sorts in 1920 when a turf dam had been built across the stream bed but at first it had been necessary "to lean against the dam to preserve its integrity".⁴⁰ The bath was in use for many years. After the war it was often damaged by caving and vandals and finally totally wrecked. The stream also fails nowadays in dry weather.

The Hut was enlarged twice before 1930. As a first stage, in 1922, the west end was extended and seven bunks from a hospital ship⁴¹ were installed. The next stage in 1924⁴² involved a 2 m. extension further west, with a tool shed beyond that.⁴³ Lighting in the Hut during its first few years was by conventional oil lamps and a hut levy of 3d. per weekend covered the cost of fuel and lamp chimneys. About 1928 pressure paraffin lamps were introduced and candles also continued to be used.

Candles were used, though not exclusively, in caves for many years, though B. A. Crook had started to use acetylene as early as about 1922. Even as late as July 1943 one of the Camp Rules⁴⁴ was "Do not take whole candles down a cave unless you have to. There are usually plenty of ends about." By the end of the war, though, they were used only by beginners, for the general introduction of helmets after 1945 provided a ready attachment for carbide or electric lamps.

"Working parties leave the University by bicycle every Saturday at 9.15 a.m. or Temple Meads by train at 9.30 a.m."⁴⁵ "In 1919 . . . visits to Mendip were made by bicycle, parties meeting at Bedminster Bridge or some other convenient place. To begin with we left our machines in Burrington village c/o Mr. and Mrs. Cox, at the farmhouse where the turning to the Post Office starts . . . After a day's caving Mrs. Cox provided teas and we cycled again."⁴⁶ These teas seem to have made an immense impression, for a report⁴⁷ refers to "many jolly expeditions, ending in as many enjoyable teas, for which our lasting thanks are due to Mr. and Mrs. Cox, of Burrington, who have so sportingly put up with irregular hours and excessive appetites."⁴⁷ Initially there were no country bus services but by 1923 "a motor bus will save the cycle ride".⁴⁸ Members began to possess motor cycles about 1922, the train was never popular, and the first car was Dr. Taylor's in 1926 or 1927.⁵⁰ By the mid thirties very few people used to cycle out.⁴⁹

When the U.B.S.S. was formed it was unique among English caving clubs in that women members were admitted (see above, p. 11). In 1920

Balch thought it worthy of remark that three ladies took part in the visit to Eastwater. The Yorkshire Ramblers' Club, for example, in a short paragraph on the Society and its work, notes that "women are admitted".⁵¹ Mrs. Dina P. Dobson⁵² was the first woman to descend the 40-ft. pitch in Swildon's Hole.

The presence of women at Burrington was something of a problem for many years, for the climbing hut tradition was not followed and their sleeping accommodation has always been segregated. Initially they were allowed the exclusive use of the Hut for one week-end in about every three, though they achieved additional week-ends by staying in some of the nearby cottages. From 1929 for over twenty years the women members used to sleep in bell tents pitched near the gate of the compound or in the woods a little further up the track. Then, in 1954, Dr. H. Taylor presented a caravan to the Society for the women to sleep in and this has now been replaced by a separate hut in the woods.

The Society's first Museum and Library has already been described. By 1922 it was very cramped and in the following year a move was made to two rooms on the ground floor of the Lewis Fry Tower (Museum 2 on *Fig. 2*). These in turn became overcrowded and by 1925 part of the collections had overflowed into the lobby outside. In 1927 these rooms were exchanged for larger quarters on the ground floor of what is now the Geography Department, on the north side of the Haulage Way (Museum 3). These comprised a museum room with a smaller library and a work-room adjoining; there was a cellar beneath the eastern part. The Society remained in these quarters until they were bombed in 1940.

Although there was plenty of activity throughout the 1920's, there was a constant series of appeals for more members in the second half of the decade. Thus in 1927, "We should be pleased to see more new faces at the Society's hut in pursuance of a hobby appealing to the muscular student."⁵³ Numbers evidently increased in 1928 and 1929.⁵⁴ In the first half of the 1930's membership fell again and by about 1936 the situation was so serious that plans were considered for winding up the Society.⁵⁵ The activities of the three years 1932-1935 supported only one issue of the *Proceedings* but the Secretary reported for 1936-1937⁵⁶ that "After a brief period of difficulty, . . . [there has been] a considerable increase in the activities of the Society."

Digging at the Tynning's Swallets went on from 1920 to 1923. An account of this will be included in a separate historical study of G. B. Cavern, to be published later. A survey of Goatchurch Cave was published in 1922⁵⁷ and in August 1923 an excavation was begun in which Pleistocene material was found. In the course of this, in 1924, a new

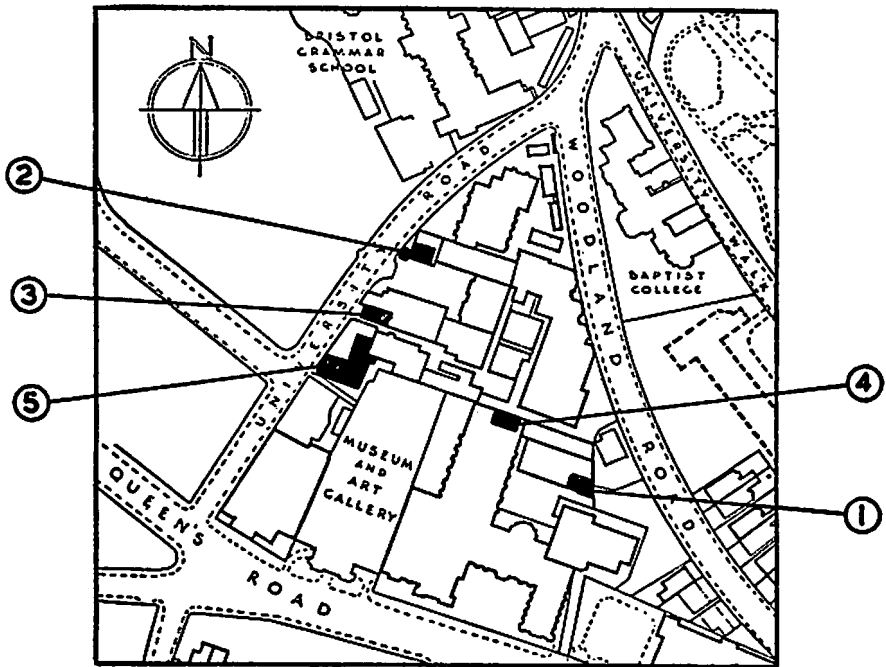


Fig. 2. Plan of the University, showing successive museum sites of the Society

chamber was discovered above the Entrance Gallery.⁵⁸ The opening of the second entrance must have occurred about then but it cannot be dated accurately.⁵⁹ Work at the cave ceased in 1925. About this time too entry was made into Drunkards' Hole—so-called after a visit on the way back from The Swan in Rowberrow—but it is very badly documented and even the exact year of its discovery (*c.* 1924) is not known.⁶⁰

An excavation at Sun Hole, lasting for many years, showed Pleistocene deposits and also evidence of intermittent occupation from Neolithic to Roman times. Work was started on April 3rd, 1926, ceased about 1934, and resumed 1951–1954. A continual problem was the disposal of spoil. The cave, on the north side of Cheddar Gorge, opens at the head of a steep scree slope which runs down for some 25 m. below the cave mouth and ends at the top of a cliff. The spoil could not be allowed to drop steadily into the Gorge throughout the work, so during the winter of 1926 a large pit was dug to the west of the cave mouth and the material from this sent down to road level by means of a chute of iron sheets.⁶¹

Another dig was at Rhino Rift in the Longwood valley in 1928–29

and perhaps in the years immediately before, but it then ceased at the request of the Axbridge Rural District Council, when it acquired the land. From October 1946 to August 1947 digging took place again in an attempt to enter a cave system and in March⁶² a Woolly Rhinoceros tooth was found. The dig was resumed in January 1950 and continued, with little success, until 1961.

1930-1939

Two developments at the Hut occurred in this decade. Firstly a piped water supply was laid on. Prof. Tratman bought the land behind the Hut and in 1938 a water catchment and storage tank were installed.⁶³ "Prior to this we had to carry water [from the nearby cottage] in two enormous buckets with a yoke."⁶⁴

A shed for caving clothes was given by E. K. Tratman in 1937 and erected at the east end of the Hut.⁶⁵ Being a small and self-contained hut alongside the main one, it became known as the "Child". When the "Child" was first erected it "was put on wheels so as to be legally a portable building. About this time the rating authorities got on to us and decided that we ought to be rated. In an [unsuccessful] attempt to circumvent this Dr. Crook bought four sixpenny wheels and fixed them with nails to the four corners of the main hut."⁶⁶

East Twin Swallet was first entered in 1936, though it was not until 1940 that the rest of the cave was penetrated. Work on clearing the swallet started in 1934⁶⁷ and labourers were employed for some of the time.⁶⁸ The swallet was almost completely choked and the water used to run on down the valley to soak away in a stone-filled hollow close to the road. A dam was constructed to divert this water and in 1936 a pump was installed to deal with the leakages. Work at the swallet itself was later abandoned and a shaft was dug nearby. In the course of the excavation some 3,500 buckets of material were removed and in September 1936 entry was made into the East Passage leading to the First Chamber, then considerably smaller than now. In March 1940, it was found that the fill had been washed out of this chamber and at its lower end a loose mud choke provided access to the new Second Chamber. The Third Chamber was reached by digging in the same summer. G. B. Cavern was first entered in 1939. A history of its exploration has been compiled by Johnson.⁷⁶ A more detailed account will appear in due course. Because of the war the first account did not appear in *Proceedings* till 1944.^{76A} Some of the plates used were in colour. Such use of colour was years

**University of Bristol
SPELEOLOGICAL SOCIETY.**

Programme for Winter Term.

October 17th. **REGINALD SMITH, F.S.A.**

Chemical Lecture Theatre, 8.0 p.m.

“The Classification of Stone Implements”

October 31st. **Mr. F. LANGFORD.**

Physics Lecture Theatre, 5.15 p.m

**“The Discovery and Problems of the
Piltdown Skull.”**

November 14th.

MR. MILES C. BURKITT, M.A.

Chemical Lecture Theatre, 8.0 p.m.

“The Civilizations of the Stone Age.”

November 28th. **Mr. H. GRIGG.**

Physics Lecture Theatre, 5.15 p.m.

“The Caves of Derbyshire and Yorkshire.”

December 15th. **HON. PROF. SIR W. BOYD-DAWKINS, F.R.S.,**

*Will address the Society at 8.0 p.m. in the
Chemical Lecture Theatre.*

Fig. 3. Lecture programme for 1919

(From an original lent by K. M. Crook)

ahead of its time and it was probably the first time that coloured plates had been used as illustrations in any scientific journal in Britain.

The classic ciné films made in Mendip caves by E. K. Tratman during the thirties are the earliest in existence, with the exception of some short ones taken in easily accessible show caves. The first series was made in the summer of 1933⁶⁹ and some 250 m. of 16 mm. film were exposed in Goatchurch (mainly), Read's Cavern and (to a lesser extent) also in Aveline's Hole, the Gulf [?] at Sandford Hill and Swildon's Hole. Lighting was provided by three paraffin pressure flood lamps of nominal 1,000 candle-power. It was necessary, to avoid underexposure, to run the camera at half speed and for the "actors" to move at half speed too, so that the film could be shown at normal rate. A second film, this time using five lamps, was made when Prof. Tratman returned from Malaya in 1937. It was filmed in Lamb Leer and comprised some 180 m., some of it in colour.

1940-1949

The Society's headquarters in the University (Museum 3 on the plan), together with its library and museum, were totally destroyed during the main incendiary air raid on Bristol on Sunday night, November 24th/25th, 1940. The museum catalogues and the manuscript log books were also destroyed. The debris was sorted through between April 4th and June 8th, 1941⁷⁰ and much of the museum material was salvaged by Dr. H. Taylor, Dr. K. M. Crook and others. Yet more was rescued in haste after this and put for safety in the Geography Department, whence it was subsequently lost.⁷¹ More again was retrieved between March 31st, 1947 and June 1948 when the old cellar was cleared. A list of the material salvaged and identified was published in *Proceedings*.⁷²

Soon after the bombing a single small room was obtained for use as a library. For several years after the war no room could be made available as a museum, so the old cellar beneath Museum 3 was used once it was cleared out in 1948. It had not been damaged by the raid but had suffered from flooding. The cellar was used mainly for storage but some exhibits were displayed in the library. These two rooms were retained until the present headquarters (Museum 5) were occupied in 1952.

The war had some effect on membership but it did not cause a disastrous reduction in numbers. Medical students provided the majority of the active membership, and when King's College London was evacuated from 1940 to 1943 some of their students worked with the Society. Several non-University members were admitted during the war largely because it was the only active group in the area at the time.

The most restrictive aspect of the war was probably the lack of transport. Wartime had also some other effects on Mendip. On November 7th, 1943, "The journey out was nearly marred by all the party being sent rather rapidly to Heaven (or the other place) by a spigot mortar shell fired with great abandon by the local H[ome] G[uard] in the valley below Reids".⁷³ In the following month, "Dec. 31. There are 6 unexploded bombs in the swallet—third from Mr. Youngs Farm (Longwood Farm, Velvet Bottom.)"⁷⁴ In 1942, "the back of the hut was taken down, the fireplace constructed and the walling extended along to the end of what is now the washing place."⁷⁵ The fireplace and kitchen corner were rebuilt in the late autumn of 1948.

The discovery of Rod's Pot in 1944 followed only a few hours of digging. On April 2nd R. A. J. Pearce and B. Dembo "Started work on swallet [at] 3 p.m. A waterworn passage between two rocks [was] entered & worked with great difficulty. 7.30 p.m. cave entered. Descended into a small boulder chamber out of which led two main rifts."⁷⁷ Next day the party returned to the cave at 5 a.m. with ladder and descended the drop to "a small chamber, the floor of which is covered with waterworn stones & sandy mud". A mud choke here was cleared on April 7th but "A narrow rift ended in three small mud choked passages. Not worth digging." On the same day the way on to the main chamber was found by climbing the aven from near the bottom of the 15 m. vertical, and on the 8th it was found possible to traverse across the top of the pitch so that the main chamber could now be reached without ladders. On April 16th a passage was forced to by-pass the traverse and "On down to [Main] stalactite chamber" and to the end of the cave.

Longwood Swallet was entered on February 21st, 1945, after about six months' digging, by A. H. and R. D. Stride (who later became members of the University) and other boys of the Sidcot School Spelæological Society. They explored as far as the Great Chamber.⁷⁸ On April 1st two members of the U.B.S.S. went to the top of the pitch at the head of the Great Rift and on the night of the 6th/7th almost all the main part of the cave was explored for the first time by the Society by arrangement with R. D. Stride but in his absence.⁷⁹

August Hole was entered by A. H. and R. D. Stride, by then at the University, on August 23rd, 1947. The Longwood stream sinking in the small boulder chamber near the 10ft. Drops had partly unblocked the way to a shaft which they then cleared to give access to the new series. Further exploration and survey took place on August 30th and the length of the new system was found to be some 1,030 m. The volume of the U.B.S.S. Hut Log covering the period of these explorations is now missing but the sequence of discovery is given in some detail by Johnson⁸⁰ who

was able to examine the volume before it was lost. A new passage about 60 m. long was found on August 28th, 1948, leading upstream under the Wet Gallery. Between October 1955 and May 1956, attempts were made to open the "August Hole Back Door" at the terminal sink of the Longwood surface stream.

On many occasions between 1939 and 1957 geophysical surveys were undertaken to develop the earth resistance measurement technique and in attempts to detect unknown caves. Prof. Palmer was doing this work which first became generally known at Lamb Leer in 1938 and 1939⁸¹ when a second large chamber was detected 100 m. from the Main Chamber. Similar surveys were carried out between 1947 and 1957 in the vicinity of Bath Swallet, G. B. Cave and elsewhere.

Several studies of cave fauna have been carried out by members of the Society. As early as 1919 or 1920 F. G. Jenkins noted blind spiders and millipedes in Goatchurch. About 1938 Dr. Alan Rogers had brought back from Jugoslavia some specimens of *Proteus* and was studying their reaction to light. For this purpose he kept them in dishes of water in Read's Cave and the cave was closed to all other visitors.⁸²

Fauna was being collected in Read's Cave in August 1943 and in the following year G. A. Walton⁸³ published his classic paper on the natural history of the cave—probably the first comprehensive study of the entire fauna of an English cave. P. F. Bird made extensive collections in the Mendip caves in 1947 and 1948 and published a preliminary fauna list.⁸⁴ It was Bird also who carried out a bat-ringing study from 1948 to 1955.⁸⁵

1950-1968

Up till 1952 Museum 3 was in use. Then, in October 1952, the Society moved into two larger rooms in the basement of the Geography Department; they were fitted out as the Museum and the Library and still serve these purposes today where they are the nucleus of the present group of rooms (Museum 5 on the plan). In 1953 or 1954 the room opposite the Museum was made available by the University for use as a work-room, in exchange for the old cellar retained from Museum 3. A darkroom was partitioned off in one corner. During these years the salvaged exhibits were repaired and catalogued together with new specimens and on May 4th, 1955 the Museum was opened officially by the Vice-Chancellor. Space was cramped by 1963 and in 1964 the old cellar of Museum 3 was once again obtained and used as a workshop. This cellar, being apart from the other rooms belonging to the Society,

was exchanged when opportunity offered and in 1967 the present museum workshop (next to the Library) was taken over in its stead.

Many improvements and additions have been made at Burrington in the last twenty years. Calor gas for cooking and lighting was installed in the Hut in the autumn of 1952 just ten years after the first fireplace had replaced primus stoves as a means of cooking. The present kitchen was built during 1955. In 1959 a separate breeze block building for drying clothes was built against the back of the Hut. A radiator was added in October, together with a boiler at the back of the Hut fireplace. The new building became known as the "Grandchild" by analogy with the existing "Child". The "Child" itself had decayed to such an extent that it was replaced in the summer of 1961. In that year too the main Hut was greatly enlarged and in 1962 or 1963 a radiator was installed in the tool shed and connected to the central heating system of the "Grandchild".

The accommodation for women members was also greatly improved, a relatively easy task at first since they had previously slept in tents. In 1954 Dr. Taylor lent his caravan for permanent use at Burrington and it was sited in the woods uphill from the Hut. By 1960 the caravan was in need of renewal so a new hut was built close by in June and July, with its own water supply from the roof. Calor gas central heating was installed in 1964. The calor gas lighting in the main Hut was supplemented, occasionally, by electric lighting supplied from a wind-driven generator, mounted on a tree on February 2nd, 1955. Electricity was so rarely available from this that in the spring of 1968 it was replaced by a petrol-driven machine.

The history of the long-continued dig at Manor Farm is described elsewhere (p. 83).

Since 1964 several members of the Society, who are also divers, achieved distinction by their underwater explorations in caves of Mendip and elsewhere. From November 1964 until they joined the Cave Diving Group in March 1965 this group was known as the Independent Cave Diving Group. Although the individuals were all members of U.B.S.S., the I.C.D.G. was not part of the Society for the U.B.S.S. constitution precludes the formation of any special sections to which all members do not have equal access. This is a requirement for the continuing grant from the University Union and so, as the special skills and aptitudes required of divers would prevent general participation, there could not be an official cave diving section. Nevertheless the Independent Cave Diving Group, during its short existence, was closely associated with the Society by the caving world and it made use of its workshop facilities.

The three members of the Independent Cave Diving Group were M. Wooding, D. P. Drew and D. Savage. They started training in November 1964 and within a fortnight Wooding was diving Sump 4 in Swildon's Hole. New ground was first broken on February 27th, 1965 when Wooding, diving alone, passed Sumps 7 and 8 in Swildon's Hole. A week later all three divers returned to the cave and passed Sumps 9 and 10. In Stoke Lane the Group passed Sumps 4, 5 and 6 on January 27th and on February 8th and 20th. On March 13th the three divers were accepted as diving members of the Cave Diving Group and the I.C.D.G. then ceased to exist.⁹⁰ Their diving continued unabated in these two caves and elsewhere⁹¹ and it has been the presence of skilled and enthusiastic cave divers in the Society which has influenced some of its most recent work and made possible its discoveries in the Little Neath River Cave.

WORK AWAY FROM MENDIP

Before 1947 there had been two archaeological excavations in caves in Wales; there had been visits to the caves of Derbyshire (1923) and Yorkshire (1934); and in 1926 a party had made a tour in the Dordogne. The Society's most important work away from Mendip has been in Ireland (see pp. 75 — 82).

Visits to S. Wales, now of such importance, began with a fortnight's camp at Symonds Yat in 1924. An archaeological dig was started in Merlin's Cave and continued until 1929. Another, at King Arthur's Cave, was carried on from 1926 until *c.* 1930, the site of the excavation being filled in between 1932 and 1935. The first exploratory work done by members in S. Wales was not a Society activity. The individuals concerned worked with the clubs already active in that area. In 1938 and 1939 they joined in the Dan-yr-Ogof explorations with the Welsh Branch of the Mendip Exploration Society⁹² and in 1946 they took part in the discovery of Ogof Ffynnon Ddu. Visits arranged by the U.B.S.S. to S. Wales took place once or more each year from about 1954. Since the opening of the Severn Bridge in 1966, the U.B.S.S. has been more active there. Divers began a systematic investigation of the sumps in the northern outcrop of the limestone and one of these was the 30 m. long sump at the end of Bridge Cave which was found to lead into the system now known as the Little Neath River Cave. The first entry into the new cave was made on January 22nd, 1967 and on 28th the sump was passed by three divers. Shortly afterwards an alternative entrance was discovered so that exploration of the rest of the cave was not restricted to divers.

Other sumps have since been passed and the total length of the cave as known at present is about 5.5 km.⁹³

In August 1963 a U.B.S.S. expedition went to the Pyrenees. In 1964 several members were invited to the karst areas of Czechoslovakia. In return Dr. F. Skřivánek and five other distinguished Czech spelæologists visited the British Isles in July 1965 as the guests of the Society,⁹⁴ and the U.B.S.S. went again to Czechoslovakia in 1967. There was a return party from Czechoslovakia to Britain in 1968.

Now after fifty years Dr. Trimmel can write, "The University of Bristol Spelæological Society has achieved international fame."⁹⁵

NOTES AND REFERENCES

The following abbreviations are used:—

Circ: U.B.S.S. Circular *or* U.B.S.S. Circular to Members.

Log: U.B.S.S. Hut Log (manuscript).

JOHNSON (1967): JOHNSON, P. J., 1967, *The History of Mendip Caving*. (David & Charles, Newton Abbot).

PALMER (1958): The Early History of the University of Bristol Spelæological Society (typed MS., 9 pp., with U.B.S.S.).

Proc.: University of Bristol *Proceedings* of the Spelæological Society.

TRATMAN [1965]: A Short History of the Hut (typed MS., 8 pp., with U.B.S.S.).

Personal communications to the author are denoted by name and date only, thus: H. TAYLOR, 16.5.68.

A more detailed unpublished history of the Society has been deposited in its library.

My indebtedness to present and former members is evident from the names of those cited here and I have also received help from many others.

¹ Palmer (1958), p. 2.

² b. 1891; d. 17 March 1962. Obit. in *Proc.*, 9 (3), 157.

³ d. 7 Jan. 1967. Obit. in *Circ.*, 1967, no. 1, p. 2.

⁴ Palmer, L. S. (1958): C.R.G.N/L, (72-77), p. 6.

⁵ *Ibid.*, p. 7; Johnson (1967), p. 175, gives 1913 for the start.

⁶ 25th Ann. Rept. of M.N.R.C. for 1934, p. 65.

⁷ 7th Ann. Rept. of M.N.R.C. for 1913, p. 39-43.

⁸ 13th Ann. Rept. of M.N.R.C. for 1920, p. 22.

⁹ Log, 7, p. 19-20.

¹⁰ *Proc.* 1 (2), 63 gives 1914; but Palmer (1958), writing 44 years afterwards, gives 1912 to 1914.

¹¹ Palmer, L. S. [1919]: Notes on skull found in Avelines by the Bristol Spelæological Research Society (MS., 3 pp., with E. K. Tratman).

¹² b. 18 May 1867; d. 22 Sept. 1942. Obit. in *Proc.*, 5 (2), 99.

¹³ The Nonesuch, 6, (24), March 1919, p. 140.

¹⁴ The spelling Spelæological was not adopted until 1921 and first appeared in print in *The Nonesuch*, 7 (30), March 1921, p. 159; the revised spelling was perhaps intended a few months earlier for it appeared as the Spæleological Society in *The Nonesuch*, 7 (29), December 1920, p. 120.

¹⁵ *Nonesuch*, 6 (25) June 1919, p. 208-9.

¹⁶ Palmer (1958), p. 3-4, writing 39 years later, confuses the two meetings.

¹⁷ *Nonesuch*, 8 (34), 140.

¹⁸ *Proc.*, 1 (1), 21.

¹⁹ *Treatman* [1965], p. 1-2.

²⁰ Two small photographs of this camp form the frontispiece of the very scarce first issue of *The Troglodytes* (1919), which contains also an informal account of the first camp by E. K. *Treatman*.

²¹ *Treatman* [1965], p. 2.

²² H. Taylor, 16.6.68.

²³ Palmer, L. S. [1919], *op. cit.*, p. [3].

²⁴ *Treatman*, E. K. (1968): *Wessex Cave Club J.*, 10, (115), p. 12-16.

²⁵ *Proc.* 1 (3), 153; *Circ.*, 1966, no. 1, p. 1-3.

²⁶ *Proc.* 1 (2), 96.

²⁷ *The Troglodytes*, 1 (2), 34.

²⁸ 13th Ann. Rept. of M.N.R.C. for 1920, pp. 21-22.

²⁹ 6th Ann. Rept. of M.N.R.C. for 1913, p. 42.

³⁰ Johnson (1967), pp. 37-8; his source for these statements is not known.

³¹ *Proc. Som. Arch. and Nat. Hist. Soc.*, 67, 11.

³² *Ibid.*, *Soc.*, 66, xxvii-xxviii.

³³ *Ibid.*, 68, lxvi.

³⁴ *Ibid.*, 68, [21]-26.

³⁵ *Bristol Medico-Chirurgical Soc. J.*, 37, (141), 238-240.

³⁶ *British Assoc. Rept. of 90th Mtg. in 1922*, 387-8.

³⁷ *Proc. Bristol. Naturalists' Soc.*, (ser. 4), 5, pt. iv, p. 161; & 6, pt. ii, p. 110.

³⁸ Langford, F. [1968]; *Origin of U.B.S.S.* p. 3. (MS., 5 pp., with U.B.S.S.).

³⁹ *Nonesuch*, 8 (37), photograph opp. p. 263.

⁴⁰ *The Troglodytes*, 1 (2), 39.

⁴¹ *Treatman* [1965], writing some 45 years afterwards, states that this was done in 1921 but 1922 seems more probable. *Nonesuch* for May 1923 (8, (37), p. 286) says, "the newly-finished bunked extension to the Hut [is] proving of great use and comfort." A photograph in the same issue shows the Hut at this stage.

⁴² *Nonesuch*, 9 (40), May 1924, p. 173 reports "The Hut at Burrington is shortly to be extended and the number of bunks doubled . . ." and the report for 1924 in *Proc.*, 2 (2), 176 states "At Burrington the Hut accommodation has been greatly increased—several bunks, a kitchen, and a new tool shed being added. A photograph dated June 1924 in the possession of F. Langford shows the new extension. *Treatman* [1965] is evidently in error in giving the year from memory as 1922.

⁴³ *Nonesuch*, 11 (46), 49, and also in some later issues.

⁴⁴ *Log*, 1, p. 1.

⁴⁵ *Nonesuch*, 6 (25), 209.

⁴⁶ Langford, F., *op. cit.*, p. 1.

⁴⁷ *Nonesuch*, 6 [=7] (27), 35.

⁴⁸ *Nonesuch*, 8 (37), 263.

⁴⁹ J. F. Blenkinsop, 10.5.68.

- ⁵⁰ H. Taylor, 16.5.68 & 19.5.68.
- ⁵¹ Y.R.C. J., 5 (15), 1922, p. 56.
- ⁵² Obit. in C.R.G.N/L, (111), pp. 13-14.
- ⁵³ Nonesuch, 11 (48), 151.
- ⁵⁴ Nonesuch, 12 (52), 49; J. J. Hinton, 27.5.68.
- ⁵⁵ E. K. Tratman, 14.3.68; B. A. Crook, 18.5.68.
- ⁵⁶ *Proc.*, 5 (1), 1.
- ⁵⁷ *Proc.*, 1 (3), opp. p. 146.
- ⁵⁸ *Proc.*, 2 (2), 128, 176; Johnson (1967), p. 169, is wrong in giving the date as 1922.
- ⁵⁹ Cooper's plan, in the *Proceedings* for 1922 which were published in 1923 (1 (3), opp. p. 146) marks "new opening begun" at this point, but it is not mentioned in the text of any of the reports. Dr. Tratman (14.6.68) recalls "Probably 1924, possibly 1923. It could be as late as 1925."
- ⁶⁰ Tratman (*Proc.*, 10 (1), 41) says it was "discovered . . . c. 1924"; Barrington (The Caves of Mendip, 1964, p. 25) gives 1923, but it cannot have been before September 1923, for E. N. Grindley (11.8.68) does not recall it.
- ⁶¹ *Proc.*, 3 (1), plate IIb, opp. p. 65.
- ⁶² *Proc.*, 6 (2), 103, 213; the year given here as 1941 is a misprint for 1946.
- ⁶³ The foundation stone of the catchment is dated January 1938.
- ⁶⁴ J. F. Blenkinsop, 10.5.68.
- ⁶⁵ E. K. Tratman, 14.6.68; the date given in Tratman [1965] was written from memory and is incorrect.
- ⁶⁶ Tratman [1965], p. 4.
- ⁶⁷ Caves and Caving, 1 (3), 119 & *Proc.*, 4 (3), 172. E. K. Tratman was still on leave and the year 1935 given in *Proc.*, 5 (2), 124 and 10 (1), 32 is an error.
- ⁶⁸ E. K. Tratman, 13.3.68.
- ⁶⁹ *Proc.*, 4 (3), 172, 261.
- ⁷⁰ K. M. Crook, via E. K. Tratman, 14.6.68.
- ⁷¹ H. Taylor, 19.5.68.
- ⁷² *Proc.*, 5 (2), 138-140, with supplements in 6, (2), pp. 106-8, 193-4.
- ⁷³ Log 1, p. 12.,
- ⁷⁴ Log, 1, p. 14.
- ⁷⁵ Tratman [1965], p. 5.
- ⁷⁶ Johnson, (1967), p. 67-78.
- ^{76A} *Proc.*, 5 (2), 104-113.
- ⁷⁷ Log, 1, pp. 18-28; Johnson's statement that work began there on the previous weekend is not borne out by the entries in the Log.
- ⁷⁸ Log, 1, p. 58; no details are given in the Log of the Sidcot School Speleological Society.
- ⁷⁹ Log, 1, p. 57-59, with sketch plan on p. 61.
- ⁸⁰ Johnson (1967), pp. 98-9.
- ⁸¹ *Proc.*, 6 (1), 27; M.N.R.C. J., 2, (1), p. 38.,
- ⁸² F. J. Goddard, 12.6.68.
- ⁸³ *Proc.*, 5 (2), 127-138.
- ⁸⁴ *Proc.*, 6 (1), 23-6.
- ⁸⁵ Bird's main report was published in *Proc.*, 6 (2), 205-7, with supplementary information in 7 (3), 120, and in *British Caving*, 2nd edn., 1962, p. 399-404.
- ⁸⁶ 44th & 45th Rept. of M.N.R.C. for 1951-52, p. 14-15.



PLATE 1A

Burrington. April Camp 1920, showing the hut before any additions
(F. Langford with teapot)

(From photo lent by F. Langford)



PLATE 1B

Burrington. Summer Camp 1920
(E. K. Tratman in braces; R. F. Read emptying plate)

(Photo by F. Weekes)



PLATE 2A
Burrington 1921. The "Wim-Wam" for cooking *(Photo by F. Weekes)*



PLATE 2B
Read's Cavern. Excavating in the main chamber about 1922 or 1923
(L. to R.: Miss K. M. Willmore, F. Langford, Miss M. Thorburn)
(Photo by H. Taylor)

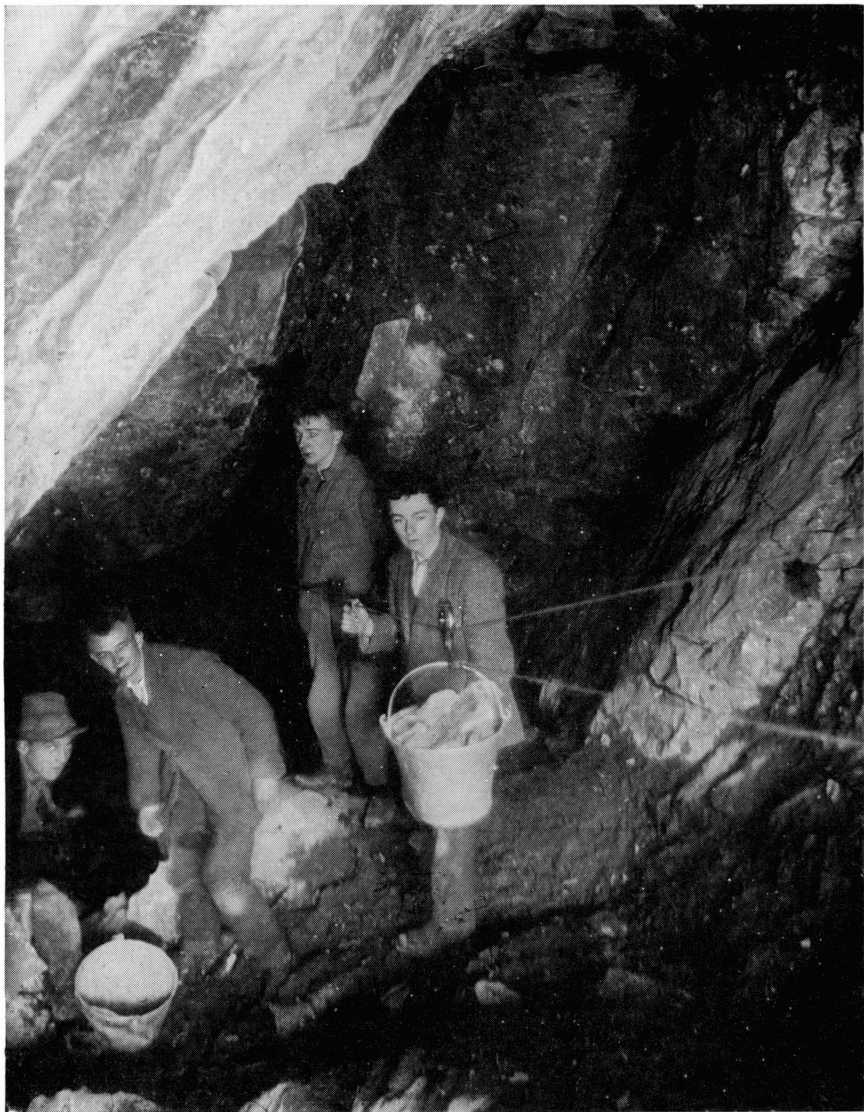


PLATE 3

Aveline's Hole. The Bucket Line, 1922
(L. to R.: J. Upton, J. A. Davies, J. Duerdon, L. Y. Baker)

(Photo by H. Taylor)



PLATE 4A

25th May 1921. Professor Sollas and others lunching at Burrington

(From photo lent by F. Langford)

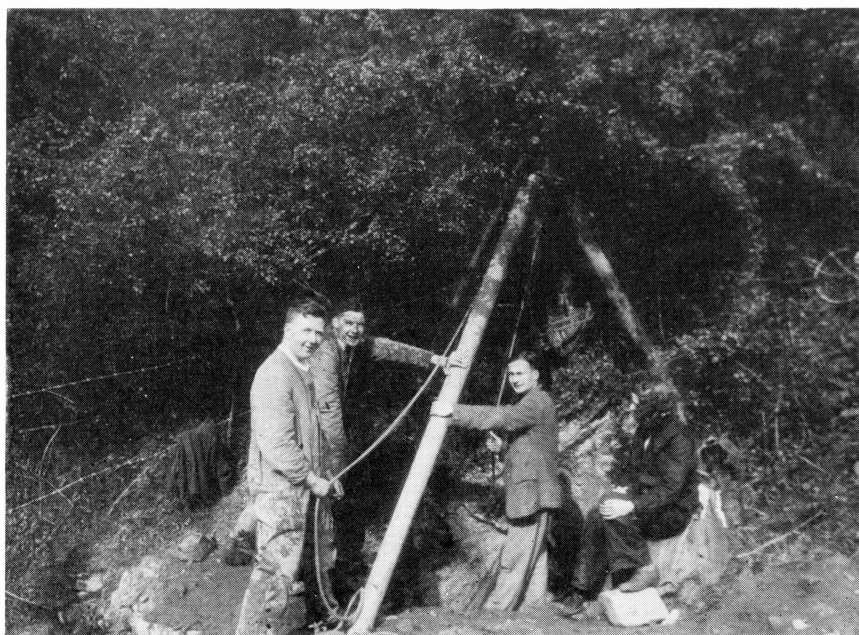


PLATE 4B

East Twin Brook Dig, June 1935

(L. to R.: B. A. Crook, Temple Bourne, J. G. Field, Miss M. Hall)

(Photo by C. R. Hewer)

⁸⁷ Wessex Cave Club Circ., (23); Mendip Cave Register is incorrect in giving 1947 for this.

⁸⁸ 44th & 45th Rept. of M.N.R.C. for 1951-52, p. 15-16.

⁸⁹ Not 12th June, as in Wessex Cave Club J., 9, (107), pp. 84.

⁹⁰ O. C. Lloyd, 30.4.68.

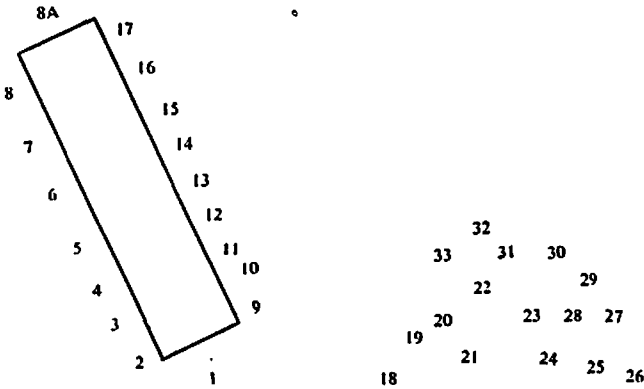
⁹¹ C.D.G. Diving Review 1964-65; & Wessex Cave Club J., 8, (100), pp. 219-224, 226-228.

⁹² G. Platten, 26.3.68.

⁹³ *Proc.*, 11 (2), 186-200; supplemented for the most recent additions by *Spelæologist* 2, (14), pp. 21, 27.

⁹⁴ Československý Kras, 18, p. 121-3.

⁹⁵ Trimmel, H. (1968): *Die Höhlenkunde*, p. 214.



[25th May 1921. Professor Sollas and others lunching at Burrington]

KEY TO PLATE 4A

1 Prof. E. Fawcett	18 E. K. Tratman
2 Lady Wills	19 R. H. Coysh
3 Prof. W. J. Sollas	21 F. Langford
4 Mrs. Sollas	22 Miss K. M. Willmore
5 J. H. Savory	24 F. G. Jenkins
6 Prof. O. V. Darbishire	25 B. A. Crook
8 Miss N. Richards	26 J. A. Davies
10 Miss Czaplicka	30 Miss D. Crellin
11 R. R. Marett	31 H. Taylor
12 Mrs. Dina P. Dobson	32 E. Smith
13 L. S. Palmer	33 D. C. Prowse
15 Prof. J. Dobson	

APPENDIX

NATIONAL GRID REFERENCES OF MENDIP SITES MENTIONED IN THE TEXT

(BA) = Burrington Area

Site	NGR. ST	Site	NGR. ST
1. Aveline's Hole (BA)	47645668	11. Manor Farm	49815570
2. Bath Swallet (BA)	47265845	12. Plumley's Hole (BA)	47665877
3. Drunkard's Hole (BA)	47115839	13. Read's Cavern (BA)	46845845
4. East Twin Swallet (BA)	47955814	14. Read's Grotto	47745621
5. Eastwater Cavern	53885059	15. Rhino Rift	48485557
6. Elephant's Hole (BA)	48455814	16. Rod's Pot (BA)	47235845
7. G. B. Cave	47585622	17. Rowberrow Cavern (BA)	45955802
8. Goatchurch Cave (BA)	47585822	18. Sun Hole	46685404
9. Lamb Leer	54315508	19. Swildon's Hole	53125132
10. Longwood Cave	48635572	20. Tynning's Farm Swallet	47645620