

SECRETARY'S REPORT, 1948-1950

We are pleased to welcome home our President, Professor E. K. Tratman. He will be living in London but expects to spend many of his off-duty hours with the Society.

At the Annual General Meeting in March, 1950, Mr. J. H. Crickmay was elected Honorary Member in recognition of his invaluable work for the Society.

Caving and Excavations

1948 G.B. CAVE. The continuation of the Ooze passage into the Gorge was discovered and has since been surveyed. The new G.B. survey was started in November. A full account appears later in this issue.

1949 G.B. CAVE. Work on the lower sand dig was started and terminated after fifty feet of passage had been cleared, and a thickness of one foot of stalagmite on the floor of the upper sand dig had been removed. The passage beyond proved to be choked with sand.

A new method of levelling in caves was developed by Mr. T. S. Zealley—spelaeobathometry. This when tested was found to be practically as accurate as the other rough method of levelling used by the Society and much quicker in operation. Using one hundred feet of rubber pressure tubing filled with water and having a pressure gauge at one end directly calibrated in feet, it was possible to read differences in height to ± 1 foot.

Water tests show that water from Tynning's stream enters G.B. Cave above the Ten Foot Pot at the top of the Boulder Chamber, and at the top of the Gorge. The water flowing from the top of the Gorge leaves at the first bend under a pile of boulders and re-enters opposite the Ooze passage.

The Main Gorge was illuminated by paraffin pressure lamps and candles for a very successful Union Week trip.

ROB'S POT. A new grotto was discovered in April of this year.

1950 RHINO RIFT. This dig in Longwood Valley was re-started in October, 1941, and continued steadily every week-end. In March, 1947, a Rhinoceros tooth was found and later ten feet of passage opened up. In April a tight squeeze was forced and entry made into a very pretty grotto. Several feet were gained by the aid of blasting but, as the work was slow and tedious, the dig was temporarily discontinued in August, 1947, progress being considered impracticable after thirty trips in all.

In January, 1950, work re-commenced in clearing boulders from a second small stalagmited grotto. Several charges of explosive were used in order to penetrate further, and now the total length of the passage is

eighty feet. The further prospects are doubtful, as the passage is narrow and blocked by debris which would be extremely arduous to remove.

G.B. CAVE. At Easter many of our members co-operated in surveying the elevation of the Gorge and Main Chamber. A one hundred and ten cubic feet capacity cylinder of hydrogen, weighing over a hundredweight, was carefully manipulated into the Gorge and a three foot diameter balloon was inflated. The balloon was then attached to a calibrated nylon cord and its ascent illuminated by a paraffin pressure lamp. The heights were determined at carefully fixed points in the Gorge. At the highest point in the cave, of seventy-five feet, the balloon burst against a stalactite. A second trip completed the work and the cylinder was removed from the cave. We are grateful to the research students from the Department of Physics who gave technical advice and assisted in the management of the balloons.

EIRE. In August 1949 and 1950 a party of members visited County Clare, Eire, and camped near Lisdoonvarna. Pollnagollum was visited and the Coolagh River Valley and cave were studied. The portion of this system described in the Yorkshire Ramblers Club Journal, volume 7, 1938, was surveyed and, in addition, a new passage was discovered leading from Polldonough South Swallet. Starting with a three hundred foot long, one to two foot high bedding plane it connects both with the Coolagh River Passage and with the Master Cave Main Drain. In all three miles of passages have been surveyed. The rivers feeding the cave rise very rapidly and on the last visit J. K. Pitts and K. Dixon were trapped inside the Polldonough South bedding cave by a sudden rise in the level of the Owencallikeen River. After three hours wait they managed to escape, but had to jettison their equipment.

It is hoped that a full description of this cave will appear in a future issue of *Proceedings*.

FRANCE. Individual members have made visits to various caves in France during the two years 1949 and 1950.

Equipment

In order to carry out the extensive work of cave and surface survey the Society has purchased a quantity of new equipment, including a hand-bearing prismatic compass invaluable for rapid survey of extensive cave systems.

We now have two hundred feet of wire ladders with either metal or wooden rungs, and an experimental length of thirty-five feet of extra light ladder has been made from three-quarter inch diameter 18 s.w.g. light alloy tubing and three-eighth inch circumference steel wire. This ladder only weighs two and three-quarter pounds and, although the rungs are too

light for general use, the ladder has been tested in caves and has been found ideal for use by small parties where the weight of equipment carried is an important factor.

Geophysical Investigations

1949 THE WATER TABLE IN LIMESTONE. Three traverses along Link Batch field above the three hundred foot contour, and one on the conglomerate below the three hundred foot contour, showed wet limestone having an appreciably lower resistance than dry limestone. The junction between the wet and dry limestone was readily detected and also between the Triassic conglomerate and the underlying limestone.

Further measurements were made along five traverses on the North slope of Dolbury Warren, and along four traverses on the flat ground to the north. The results, however, proved difficult to interpret, owing to theoretical problems, and the final conclusions will be published later.

1949 BATH SWALLET INVESTIGATIONS. Described in a paper appearing in this issue.

1950 Further work confirmed the previous results. Also earth resistance measurements extending radially from Tynning's West Barrow suggested a concentric ditch. Excavation, however, failed to confirm this.

Archaeological Investigations

1948-9 FIELD SYSTEM AT CHARTERHOUSE-UPON-MENDIP. A report of this excavation appears in this issue.

1949 BURRINGTON CAMP. A section has been dug through the defences on the eastern side. Further work is contemplated and will be reported upon in due course.

CIRCLES NEAR GORSEY BIGBURY. Trial trenches have been dug at this site. A short note appears in this issue.

TUMULUS, T.5. This site is in the process of excavation under the direction of Dr. H. Taylor.

RHINO RIFT. A report appears in this issue.

Acknowledgements

We should like to acknowledge with gratitude financial aid from the University, the University Union and the Colston Research Society, and to thank the Finance Officer for auditing the accounts of the Society each year.

N. G. BLACKWELL,

Hon. Secretary.