

## PROFESSOR PALMER, THE BSA AND THE MISSING MEGGER EARTH TESTER

by

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### Abstract

An account is given of the acquisition in 1937 of a Megger Earth Tester by L.S. Palmer and its place in the relationship between Palmer and Eli Simpson of the British Speleological Association.

Professor Leo Palmer (1891-1962) was a prominent figure in speleology in the UK for a large part of the 20<sup>th</sup> century. He was a founder member of the Bristol Speleological Research Society in 1912 and of the University of Bristol Speleological Society (UBSS) in 1919 (Williams, 1999). He spent much of his academic career at University College, Hull, the forerunner of today's University of Hull but retained close links with the UBSS (Tratman, 1962). Professor Palmer was also a founding member and first chairman of the British Speleological Association (BSA), the attempt led by Eli Simpson to form a national coordinating body for speleology along the lines of those in other caving regions of Europe. Between 1937 and 1939, many of the academics originally involved in the BSA resigned as they were unhappy with the way it was developing. These included Sir Arthur Keith in 1938 and Dr Miles Birkett in 1939 as Simpson became more focussed on the politics of caving (Judson, 2009). With the outbreak of war in 1939, the council of the BSA passed a series of resolutions at an emergency meeting in Sheffield on the 9<sup>th</sup> September 1939 to wind up the Association until the cessation of hostilities. However under the leadership of Simpson activities were carried on throughout the war. On the cessation of hostilities many members returned and then resigned including B.M. (Monty) Grainger and E.K. Tratman, seemingly unhappy with Simpson's activities and behaviour. Professor Palmer resigned on the 16<sup>th</sup> January 1946 blaming "excessive work arising from my return to academic duties".

The split between the former friends and allies, Simpson and Palmer, had another layer of complexity. In addition to his academic work on electrical engineering, Palmer had undertaken pioneering work on using ground resistivity for the detection of subsurface voids. His most famous work was the apparent discovery of a second large void adjacent to the Main Chamber of Lamb Leer on the Mendip Hills, often referred to as Palmer's Chamber. In spite of much digging by cavers the supposed chamber has never been entered and further geophysical work has shown the original interpretation to be in error (Butcher, *et al.* 2007). The value of other resistivity surveys undertaken by Palmer has also been questioned (Mullan, 1992).

The equipment used for this work was a Megger Earth Tester, the purchasing of which was undertaken with a grant of £200 from the Royal Society. After his resignation, the ownership of the equipment was disputed by Simpson and Palmer. Appended to a letter to Simpson from Palmer dated 6<sup>th</sup> March 1946 is the statement: *As I have already written to you and to Miss Montagu, the Megger Earth Tester is nothing to do with the B.S.A. It is the property of the Royal Society on loan (with grant) to me personally.* In the BSA recorder's report 1939-46 the letter is followed by this note: *At a council meeting of the Association held at the University of Bristol on July 23<sup>rd</sup>, 1937 the following Minute is entered in the Minute Book in*



**Figure 1.** *The Megger earth tester in use over Lamb Lair, 1956. The kneeling figure (L.S. Palmer) is hand cranking the generator and the two other figures are looking down on the galvanometer.*

Photograph from the Wells & Mendip Museum collection. Accession no: 27/1990/11.

*Professor L.S. Palmer's handwriting, the minutes of the meeting were also signed by him 16.X.1937. "Chairman reported grant of £200 from Royal Society towards cost of a Geophysical Megger Earth Tester".* An extract from the third report of council 1939 states: *Council is pleased to report that the Royal Society have made a grant of £200 towards the purchase of a geophysical Megger Earth tester which has been issued to the Chairman of the Association.* A letter from Simpson to Palmer dated 7<sup>th</sup> March 1946 states: *Re Megger Earth tester. After taking legal advice, I am afraid you err on this matter.* All the above correspondence was reproduced in the BSA recorder's report 1939-46, a copy of which is held in the Northern Pennine Club Library.

Professor Palmer's application to the government grants committee of the Royal Society is dated 12<sup>th</sup> March 1937: "Professor L.S. Palmer – for a grant of £250 for the purchase of a geographical megger earth tester for the detection of caves and similar cavities". This requested £230 for the equipment and £20 for travelling expenses. In the minutes of the government grants committee it is recorded that the applicant be recommended to submit a fresh application for consideration but no reason for this recommendation is given. No such application has been found but presumably one was submitted as, in the minutes of the Royal Society Council dated 8<sup>th</sup> July 1937, it is recorded that he received a grant: "That grant of £200 be made to Professor Palmer for this purpose from the Messel Fund". The Messel Fund was a bequest left to the Royal Society in 1920, by Dr Rupert Messel FRS. The fund came with few restrictions and the Society was instructed to "apply the whole of the income as it may think most conducive to the furtherance of scientific research and such other objects as the Council of the Society may determine." The Council decided to use the Messel Fund primarily to aid the publications of the Royal Society and to fund professorships, but any income left over could be used at the discretion of the Council for other grants such as that given to Professor Palmer. The equivalent value of £200 in 1937, today (2014) is approximately £12,300 so this was a significant sum given directly for karst research, a field of scientific endeavour which has always struggled for direct funding in the UK.

Professor Palmer's application for funding did state that the intended geophysical work was a sequel to the water tracing work of the BSA, it also said BSA members would be involved in the surveying and gave Palmer's affiliation both as Professor of Physics at University College, Hull and as Chairman of the council of the BSA. Does the mention of the BSA in the application mean Simpson was correct? Palmer's use of the BSA's name in the application to the Royal Society suggests his assertion that it had "nothing to do with the BSA" seems unlikely. However, none of the reports on its use were published by the BSA. The last known reference to the equipment being used was in 1957 (Palmer, 1965) which suggests Palmer kept control of the equipment whether Simpson's contention was correct or not.

So, what became of the disputed equipment? The first product under the brand name Megger was produced in 1889 and the name was trademarked in 1903. It is still a major manufacturer of electrical testing and measurement equipment {1} but what became of this particular piece of equipment which was pivotal in the fall out between two major figures in British speleological history is not known. The equipment consists of two units, the hand generator (seen being cranked in Figure 1) and the galvanometer (mounted on a tripod behind the observer in Figure 1). A section of drum mounted cables and the metal spikes which acted as electrodes completed the kit. Palmer would have been 65 years of age in 1957 and on retirement he returned to Wells so he may have brought the equipment with him. A search of the UBSS and Wells Museum archives for his field notes was unsuccessful (G. Mullan, *pers.com.*) and the equipment is not in the collection of the Wells and Mendip Museum (B. Lane, *pers.com.*). It is a shame that such an important item, which played a major role in both cave

science and caving politics is now lost. The caving community has a long history of recording exploration and exploits in caving club journals for future generations and much work has been undertaken recently on making sure this material is archived and available through the British Caving Library {2}. Part of this work has involved developing an audio archive preserving oral histories {3}. However little consideration has been given to the preservation of material culture associated with cave exploration, though Jeffreys (2014) has raised this issue in the caving press. Perhaps it is time that cavers became more proactive in ensuring that this legacy survives for the next generation of cave explorers.

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### WEB SOURCES

- {1} <http://www.megger.com/eu/about/index.php>
- {2} <http://caving-library.org.uk/>
- {3} <http://caving-library.org.uk/audio/audio.shtml>

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