

## DISTANT THUNDER

## Rock star

### Geologist and science writer Nina Morgan celebrates a geologist who went to war

When Sir Aubrey Strahan [1852-1928] became Director of the Geological Survey of Great Britain in January 1914 he faced a baptism of fire. Eight months after he took office, Britain entered the First World War and Strahan faced a catastrophic loss of personnel. By the end of 1915, 68 staff members—more than a third of the workforce of the Geological Survey and Museum—had joined up.

Survey geologist, William Bernard Robinson (W.B.R.) King [1889-1963] was one of those who was quick to volunteer for active service. He was given a commission as a second lieutenant in the Seventh Battalion of the Royal Welsh Fusiliers on 21 September 1914 and in April 1915 was appointed to the War Office. In June 1915, he was transferred to France to serve as Geological Advisor to the Chief Engineer of the British Expeditionary Forces with regards to water supply.

### Call the Geologist

The idea of turning to a trained geologist to advise on geological problems in a war zone was a new one. King—nicknamed ‘Rocks’ by the Royal Engineers—was the first geologist in either the Allied or the German armies to receive a military assignment for work in his own profession. Until May 1916, when he was joined by Major T.W. Edgeworth David, Professor of Geology at the University of Sydney, Australia, King was the only geologist actively working in the battlefield. His work demonstrated clearly the value of geology in the war effort.

### Concrete Evidence

Along with his work on water supply, King also drew on his geological training to identify the source of aggregate present in the concrete used by the Germans to build their pill boxes. This work provided the key evidence to demonstrate that Dutch neutrality was being compromised.

Writing to P.A. Sabine in 1961, King explained that: “The point, of course, was that the Germans were sending gravel from the Rhine thro’ neutral Dutch waterways and we claimed that it was being used for war purposes and the Germans said that they would never do such a wicked thing and it was used for peaceful purposes only.”

But after Canadian troops obtained a sample of the concrete used in a German emplacement that contained granite, King’s suspicions were aroused and he persuaded his General to order personnel at the 5<sup>th</sup> Army HQ to collect samples. As King recalled:

“...I arrived at 5<sup>th</sup> Army HQ to find much wrath at all the Intelligence staff having to waste a day getting bits of concrete for a very youthful Captain from GHQ to examine. But by luck, [from] the first sandbag when opened, out fell a lump of concrete with a piece of Niedermendig lava.”

King’s instant identification of a rock from the Niedermendig–Andernach–Eifel region of the Rhineland, provided proof positive that the Germans were using Dutch canals to transport war materials to the front line.

### War hero

King went on to serve in the Second World War as the senior of three geologists who provided expertise to the British Army in North West Europe, North Africa and the

Italian Campaign. After WWII he became Geological Adviser to the War Office and saw the creation of an emergency reserve of geological officers.

King was mentioned twice in dispatches during the First World War, and later received awards for his war work, including an OBE for geological services in the First World War. Twenty-two years later he was awarded a Military Cross for bravery during the Second World War, for volunteering to drive the leading lorry of a convoy of high explosives back from Boulogne to Bailleul and Cassel, an area he knew intimately from the First World War. After WWII he first returned to the Geological Survey, and then went on to have a distinguished academic career, working first at Cambridge, then at University College London, and finally returning to Cambridge in 1943 as Woodwardian Professor of Geology.

Geologists admire him particularly for his contributions to Palaeozoic palaeontology and stratigraphy. But in the public imagination it is surely his war time work that made him famous. He was the only geologist to serve in both World Wars.

**End notes:** Sources for this vignette include: Sabine, P.A., 1961, Geologists at war: a forensic investigation in the field of war-time diplomacy, *Proc. Geol. Assoc.*, **102**, 139-141; D.G. Bate & A.L. Morrison, 2018, *Proc. Geol. Assoc.* **128**, 3-11; Peter Doyle, 2014, Geology and the war on the Western Front, 1914-1918, *Geology Today* **30** (5), 183-191; *Nature* **152**, 531 (06 November 1943), <http://dx.doi.org/10.1038/152531b0>; and an article about King by Benedicte Windle of the NE Yorkshire Geology Trust, available for download from <http://www.neyorksgeologytrust.com/pages/ww1/willking.html>; Keep calm and carry on, *Geoscientist*, November 2013.

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