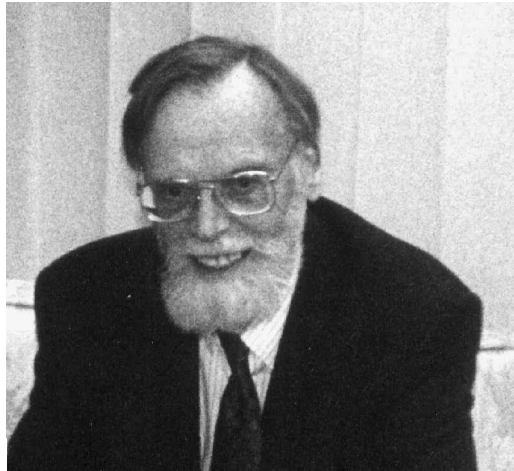


## Obituary

### Professor W. S. MacKenzie, 1920–2001



William Scott MacKenzie was born in 1920 in Kilbarchan, Renfrewshire where his father was a minister in the Presbyterian Church. Although he often quoted his father's advocacy of brevity ("As a preacher, you save no souls after the first five minutes<sup>ab</sup>"), Mac was the most sociable of men and could never break off a story, a tutorial or, best-of-all, an argument, before it had reached its natural conclusion.

Mac went up to St. Andrews before the Second World War where he initially studied Mathematics (acquiring a significant student medal), Chemistry, Physics and Latin. When war broke out he entered the Royal Artillery where he served on the Coastal Batteries and later, after D-Day, with the Allied Forces in Europe.

After leaving the army, Mac returned to St. Andrews where he opted for Geology and, with his strong background in physical sciences, was enthused by the mineralogy and petrology teaching of Harold Drever. A year in St. Andrews as a research student working on the aureole of the Ross of Mull granite was followed by one at Cambridge and then a year at the Geophysical Laboratory in Washington D.C. He returned to Cambridge as a Demonstrator and

gained his PhD in 1953. By this time, the major influences on Mac's scientific career had been established. Drever's attention to undergraduate teaching and openness to new ideas, Tilley's petrography allied to physicochemical principles and, at the Geophysical laboratory, Tuttle and Bowen's application of high-pressure experiments to mineralogy and petrology were the cornerstones of Mac's attitudes and interests. He returned to the Geophysical Laboratory as a staff member and continued his work on the properties of the high-temperature alkali feldspars publishing a number of groundbreaking papers involving combinations of high-temperature experiments, X-ray and optical methods. Much of this research was carried out together with J.V. Smith as part of a 10-year collaboration on the alkali feldspars.

In 1956 Mac was enticed back to the UK by Alec Deer and appointed to a Lectureship in the Department of Geology at the University of Manchester. His principal brief was to set-up a state-of-the-art laboratory for experimental petrology. This became the first major experimental centre in the UK and very rapidly attracted collaborators from around the world. One of the first was Ian Carmichael, then at the Imperial

College of Science, who had been strongly influenced by Mac's great interest in feldspar-liquid equilibria, both in the lab and in nature. Soon thereafter (1965) the laboratory expanded with the award of a large DSIR (Research Council) grant and Bill Fyfe was attracted to Manchester from Berkeley as a Royal Society Research Professor to provide focus in the areas of high-grade metamorphism and anatexis. In the meantime Mac had risen rapidly through the academic ranks and was appointed to a Personal Chair in 1964.

The most memorable aspect of Mac as a colleague and teacher is the fact that he would always stop whatever he was doing to help anybody who asked: professor, post-doc, undergraduate student, were all, in his eyes, equally worthy of his time; or from another perspective, all good reasons to interrupt the daily delight of reading and answering his mail. Of course, one usually had to put up with 10 minutes of staring down his microscope at some incredibly obscure mineral while being encouraged along the lines of "I thought you were a bright lad. I can't understand why it's taking you so long to figure out what that is<sup>at</sup>". His career-long interest and expertise in microscopy and photography combined with his enthusiasm for teaching, led to publication of the outstanding series of 'atlases' of rocks and minerals. These were reasonably

priced and, as many students and lecturers can attest, are absolutely invaluable teaching aids.

As research colleagues in his experimental laboratory, we grew to share his great love for phase diagrams, following their intricacies as he did, rather like a complicated puzzle. It was the ternary (An–Ab–Or) feldspars and their liquid relationships whose complexities appealed to him most, for he had been strongly influenced by J.W. Greig at the Geophysical Laboratory. And it was the rocks that represented the natural equivalents of these that were the subject of so much of the experimental output of his lab. He guided the work and careers of many young experimentalists with great generosity, and gave us all the unusual example of never letting robust and thoughtful criticism stray beyond the subject matter to the author. He was one of the great mentors of his era, offering original and provocative ideas and enthusiastic support to his younger associates, instinctively generous in his thoughts and actions, shy of praise, quick to laugh and quicker to forgive, but always ready to debate any problem while reflectively rubbing his beard. The two writers share with his past and present colleagues in the University of Manchester the good fortune that our paths meshed for a short time with 'Mac', who enriched our lives to such an extent.

B. J. WOOD

I. S. E. CARMICHAEL