

rational numbers  $a_n, t_n$  and  $t'_n$  such that  $a_n \rightarrow a, t_n \rightarrow \tan \frac{1}{2}B$  and  $t'_n \rightarrow \tan \frac{1}{2}C$  as  $n \rightarrow \infty$ . Next define  $B_n$  and  $C_n$  uniquely by

$$\tan \frac{1}{2}B_n = t_n, \quad \tan \frac{1}{2}C_n = t'_n \quad \text{and} \quad 0 < B, C < \pi.$$

Finally construct triangle  $A_n B_n C_n$  with angles  $B_n$  and  $C_n$  and with  $a_n$  as the length of the included side  $B_n C_n$ . By Theorem 1, each of these triangles  $A_n B_n C_n$  is Heronian. Also as  $n \rightarrow \infty, a_n \rightarrow a, B_n \rightarrow B$  and  $C_n \rightarrow C$ , so that  $ABC$  is the limit of a sequence of Heronian triangles.

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## Obituary

### Edwin Arthur Maxwell

Edwin Maxwell's career is simply told. He attended school and university in Aberdeen before moving south to Cambridge, as the custom then was, to read for the Mathematical Tripos and the Ph.D. degree. He was elected to a Fellowship at Queen's College and remained there for the rest of his days.

Such was the framework for a rich and happy life, to describe which the word which springs to mind is "devotion": devotion to his family, to his college, to his church, to the Mathematical Association, to mathematics (especially geometry) and to his native Scotland. A happy combination of these was exhibited in his last active appearance at an Association function, when he introduced an evening of Scottish country dancing at the Dundee conference with a talk describing the various movements in matrix terms, before leading us on to the floor with Greta in a display of gyrations which paid scant regard to the fact that they had celebrated their golden wedding the year before.

Edwin loved teaching, and he had the gift of being able to adapt his approach to a wide range of audiences. He was always ready to take on those service courses which many colleagues would have considered a chore; yet he could delight a course of sixth form teachers with a demonstration of geometrical elegance. Fortunately his skill as a teacher has been preserved for us in a series of text books written during the 1950s and 1960s, of which two call for special mention: *An analytical calculus*, a masterpiece of lucidity which takes the subject in four volumes from its beginnings into the realms of convergence and partial differential equations; and *Geometry for advanced pupils*, an original presentation which takes for its unit the "configuration" rather than the theorem, written with love and with a lightness of touch which is rare in the genre. He also wrote some "library" books, including one on *Fallacies in mathematics* from which he generously donated a part of the

royalties to the Mathematical Association in “gratitude for much that I have learned and for many friendships that I have made”.

A more unusual attribute was the pleasure which he derived from examining. Many a candidate for the mathematics examinations of the Cambridge Local Examinations Syndicate has unwitting cause to be grateful to him for the humanity and the professionalism which he brought to this task.

In his personal habits Edwin was conservative: he chose to use the train, the blackboard and the fountain pen rather than the plane, the overhead projector and the typewriter. But this resistance to innovation certainly did not extend to his thinking on mathematical education. He was active with the International Commission for Mathematical Instruction (ICMI), serving on the Executive Committee during the 1950s and as Secretary from 1971 to 1974, and he was one of the U.K. delegates to the conference at Royaumont in 1959 which led to the publication of the radical manifesto *New thinking in school mathematics*. He gave valuable support to the School Mathematics Project in its early years as a member of the A-level advisory group, and later wrote the SMP handbook on *Geometry by transformations*. In 1965 he produced a sixth form/undergraduate text on *Algebraic structure and matrices*, and he was frequently in demand to lecture at courses in “the new mathematics” for teachers. (One has to admit, however, that nothing gave him greater pleasure than to discover that he could use “modern” techniques to give a new proof of the Simson line property!)

He held three major offices within the Mathematical Association. From 1963 until 1971 he was Editor of the *Mathematical Gazette*; it was typical that one of his first acts was to write an introduction to a series of articles which “illustrate a variety of experiments”, and invited readers “to submit accounts of a similar nature from their own experiences. Novel approaches to work among younger children will be particularly welcome.” Under his aegis the journal earned a reputation for lively and relevant articles, and a view that mathematics could be serious without being solemn. This might be thought service enough for one individual; but in 1976 he generously came to the help of the Association by taking over as Treasurer following the sudden death in office of John Lloyd, continuing in that capacity for three years so that he could hand over the finances in a stable condition to his successor. His Presidential year was from 1960 to 1961—a time of incipient change for mathematics teaching, but also of a growing awareness of crisis in the availability of the teachers needed to carry it through. It was the latter which engaged his attention in his Presidential Address, “Pastors and masters”; typically his message was a positive one, “the worthwhile-ness of teaching and the proper status of the profession”, and it remains as cogent now as it was a quarter of a century ago.

We all have much cause to be grateful for the life and example of Edwin Maxwell, and we shall treasure the memory of his unassuming friendship.

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