

PROCEEDINGS OF THE TWENTY-SEVENTH ANNUAL MEETING OF THE MINERALOGICAL ASSOCIATION OF CANADA

The twenty-seventh annual meeting of the Mineralogical Association of Canada was held on May 17-19, 1982 at the University of Manitoba in Winnipeg, in conjunction with the thirty-fifth annual meeting of the Geological Association of Canada.

The eighth MAC short course preceded the meeting. The course was organized by Petr Cerný and dealt with the topic "Granitic Pegmatites in Science and Industry". The Association sponsored or cosponsored several special technical sessions during the meeting including "Mineralogical and Geochemical Aspects of Nuclear Waste Disposal" organized by G.M. Anderson, "Ore Deposits in Mafic-Ultramafic Suites" organized by D.H. Watkinson and O.R. Eckstrand, "Metamorphism of Sulfide Deposits and Alteration Zones" organized by E. Froese, and "Meteorites and Terrestrial Impact Structures" organized by P.B. Robertson and S.A. Kissin. The technical program was also noteworthy for the large number of mineralogical papers presented in the general sessions.

The MAC Annual Luncheon was held on May 18 in the Pembina Hall Dining Centre of the University of Manitoba. The occasion marked the inaugural presentation of the Association's Past Presidents' Medal, which will be awarded annually to an individual having a record of distinguished scientific contributions to mineralogy and the allied sciences in Canada. It is most appropriate that the first recipient of the Medal is L.G. Berry who has played a pre-eminent role in Canadian mineralogy over the past four decades. The Hawley Award for 1982 was presented to A.R. Philpotts of the University of Connecticut in recognition of his paper entitled "A model for the generation of massif-type anorthosites" published in *The Canadian Mineralogist*, Volume 19, pages 233-253. The Annual Luncheon was also the occasion of the presentation of Honorary Life Memberships to L.J. Cabri and J.L. Jambor in recognition of their exemplary efforts as editors of *The Canadian Mineralogist* for many years. The Presidential Address was delivered immediately prior to the Annual Luncheon by R.A. Alcock. His presentation was entitled "How Good Are Those Analytical Data?"

The Annual Business Meeting of the Mineralogical Association of Canada was held on Tuesday, May 18 at 1700 hrs. in Room 237 of

University College, the University of Manitoba. A.J. Naldrett opened the meeting by thanking the organizers of the Winnipeg meeting for their very successful efforts, and in particular General Chairman W.C. Brisbin, Vice-Chairman C.C. Bristol, MAC Program Chairman R.F.J. Scoates and those responsible for MAC special sessions and the short course held prior to the meeting. A.P. Sabina presented the Treasurer's Report and referred to the audited financial statements for the 1981 fiscal year. The non-inventory assets of the Mineralogical Association of Canada, including the equity in the Short Course Fund, *The Canadian Mineralogist* and the Special Publication Foundation, amounted to \$175,048 at the end of 1981 as compared with \$134,892 a year earlier. R.I. Gait reported on behalf of the Membership Committee that total membership at the end of 1981 was 2127, of which 1455 were individuals. During the first quarter of 1982, 87 applications for new memberships had been received. L.J. Cabri reported that publication of *The Canadian Mineralogist* was proceeding according to schedule, with the first issue of 1982 having been mailed already and the second issue to be mailed in June. He added that the third issue of the current year would be a special number devoted to high-grade metamorphism and that the supply of manuscripts for future issues had increased over the previous year. A.J. Naldrett stated that L.J. Cabri would be stepping down as Editor of the journal at the end of June and that R.F. Martin, who had been serving as coeditor since 1978, would assume the editorship. A.J. Naldrett reported on the plans for future annual meetings and short courses. The 1983 Annual Meeting will be held in Victoria, British Columbia and would be preceded by a short course on Sediment-Hosted Pb-Zn Deposits, to be organized by D.F. Sangster. The 1984 Annual Meeting will take place in London, Ontario, and a short course on Environmental Geochemistry is being planned. The 1985 and 1986 Annual Meeting will be held in Fredericton and Ottawa, respectively; it is likely that the 1987 meeting will be held in Saskatoon and the 1988 meeting in St. John's, Newfoundland. The minutes of the Annual Business Meeting may be obtained from the Secretary.

J.M. Duke
Secretary

PAST PRESIDENTS' MEDAL FOR 1982 TO L. G. BERRY

This year marks the inauguration of a new award to be presented annually by the Mineralogical Association of Canada. The Past Presidents' Medal has been established to recognize individuals who have a record of distinguished scientific contributions to mineralogy in Canada. The Association has since its inception included

the allied disciplines of crystallography, petrology, geochemistry and mineral deposits studies under its mineralogical umbrella, but it is most appropriate that the first recipient of the Past Presidents' Medal is a classical mineralogist in the finest sense of the term, Len Berry.

A native of Toronto, Len received his under-



LEONARD G. BERRY

graduate and graduate training at the University of Toronto, earning his doctorate in 1941. He was employed as an engineer by Research Enterprises Limited in Toronto during the war, and then moved downstream to Kingston in 1944, where he began his long association with Queen's University as Lecturer in Mineralogy. His success as a teacher is apparent from the long list of practicing mineralogists who have trained under him; undergraduate students at many universities in addition to Queen's have benefited by using the two elementary textbooks in mineralogy, which he coauthored with Brian Mason.

Len was introduced to the relatively new science of X-ray crystallography by his mentor at Toronto, Martin Peacock. Although the diffraction of X rays by crystals had been discovered in 1912, its application to minerals had been rather limited prior to the late 1930s. The commencement of Len's graduate studies coincided with the establishment at Toronto of the first X-ray-diffraction laboratory in Canada devoted to mineralogy. Crystal-structure analysis and descriptive mineralogy have remained the focus of his research, and the dozens of papers he has published on these topics comprise a most impressive literature. His studies of the sulfosalts are perhaps among the most noteworthy.

One of Len's most important contributions to mineralogy derives from his efforts to provide a reliable X-ray-diffraction data-base for minerals. This year marks the twentieth anniversary of the publication of *The Peacock Atlas* coauthored by Len and the late Bob Thompson. The Atlas contains indexed powder-diffraction data together with reproductions of the X-ray films for carefully documented specimens of nearly 300 ore minerals. The work was regarded as the

state-of-the-art when it was published and remains an authoritative reference today. The same attention to detail evidenced in the *Peacock Atlas* was undoubtedly of great benefit during the more than 20 years that Len served as Associate Editor and then Editor of the *Mineral Powder Diffraction File*.

Although the award we are making to Len today is primarily in recognition of his scientific achievements, we would be remiss if we did not point out the enormous contributions he has made to the mineralogical societies. He was instrumental in the founding of the International Mineralogical Association and served as its Treasurer for 22 years. He was principal Editor of *The Canadian Mineralogist* and its predecessor for 25 years. He served as Vice-President and President of the Mineralogical Society of America, and as Vice-President and President of the Mineralogical Association of Canada.

Given this long list of achievements, you will not be surprised to learn that The Past Presidents' Medal is not the first such award that Len Berry has received. He started early, receiving the Coleman Gold Medal for Geology upon completion of his undergraduate studies at Toronto. He was named a Fellow of the Royal Society of Canada in 1951, a Guggenheim Fellow in 1954, Miller Research Professor at Queen's in 1956, Willet G. Miller medalist of the Royal Society of Canada in 1963, Honorary Life Member of the Mineralogical Association of Canada in 1967, and Silver Jubilee Medalist in 1977. Ladies and Gentlemen, I give you Len Berry, teacher, researcher, scientific organizer, and a good friend to many of us.

Citation read by
R.A. Alcock

THE HAWLEY AWARD FOR 1982 TO A. R. PHILPOTTS

It is a curious freak of Nature that the most common silicate mineral in the crust of the Earth sometimes occurs in massive concentrations, equal to or larger than any other monomineralic mass, yet there is no commonly accepted view of how this state of affairs comes about. It is not as if plagioclase is a difficult mineral to deal with, nor that very little is known about it: a 1974 text devotes several hundred pages to plagioclase. Its occurrence in anorthosites has excited the interest of petrologists and mineralogists from the late nineteenth century; Bowen and Daly discussed their problems at length.

Today, we are faced with many alternative explanations of these very Canadian occurrences, beautiful where iridescent, physically challenging in their remoteness and academically unresolved. In his pursuit of the solution to this problem, Tony Philpotts has followed many concurrent lines for a long period, starting with a 1961 paper and now culminating with his paper "A model for the generation of massif-type anorthosites", pages 233-253 in Volume 19 of *The Canadian Mineralogist*. Dare we remind him that in 1966 immiscibility was but a minor (and improbable) process? He said then that "the only

point left unexplained is [their] apparent Precambrian age"! In 1981, he combined detailed field studies with new laboratory experiments on immiscibility in iron-rich silicate systems and with exceptionally detailed and elegant textural studies of anorthosites. The arguments in favor of precipitation of plagioclase from two coexisting liquids, buffered thereby to a constant composition, are very clearly, carefully and thoughtfully presented, with ingenious use being made

of textural studies of the distribution of apatite and zircon. In pursuing this goal he has enlightened us considerably on the details of this major natural occurrence of plagioclase; whether the controversies over the origin of anorthosites are settled remains, as usual, to be seen. But the four other leading theories now look less likely, and we trust that Dr. Philpotts may be able to continue to study this problem for a long time to come, enlightening us still further.



ANTHONY R. PHILPOTTS

Tony Philpotts was born in Bristol, England in 1938. His family emigrated to Canada following the Second World War. Tony began his geological studies at McGill University, receiving his B.Sc. in 1958 and his M.Sc. in 1960. He then went to the University of Cambridge, where his research on the anorthosite-mangerite rocks of southern Quebec under the direction of C.E. Tilley and I.D. Muir led to a doctorate degree in 1963, and also to the Peacock Memorial Prize of the Walker Mineralogy Club of Toronto in 1964. Tony returned to McGill where, as Lecturer and then Assistant Professor, he earned a reputation as a teacher who was able to successfully integrate the field, theoretical and experimental aspects of petrology and present

them in an entertaining manner. At McGill, he also began his field and experimental studies of alkaline rocks and, in particular, of the role of silicate-liquid immiscibility in igneous petrogenesis. Tony moved to the University of Connecticut in 1970, where he has served as Associate Professor, Professor and, since 1978, as Chairman of the Department of Geology and Geophysics. He has pursued his research interests in silicate phase-equilibria, liquid immiscibility and basalt petrology at Connecticut and has assembled an impressive record of publication on these topics.

Citation read by
A.J. Naldrett