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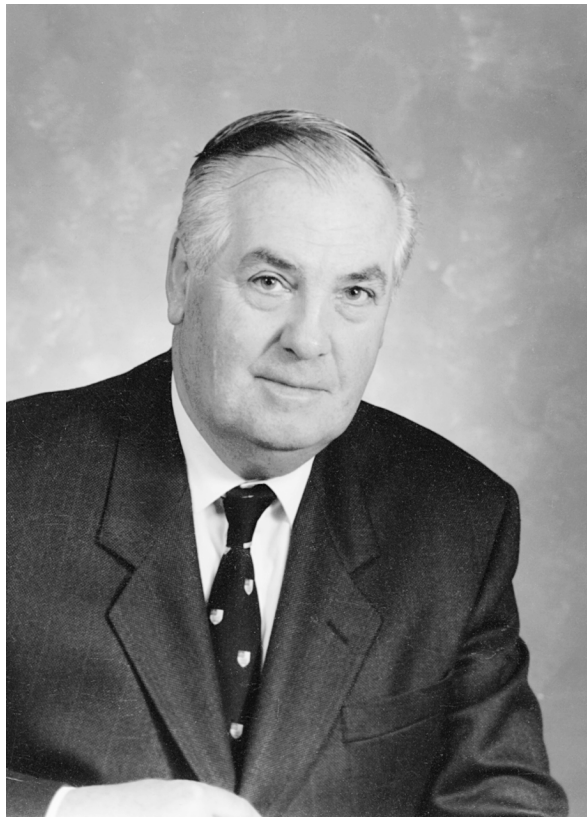
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W.G.E. Caldwell, B.Sc., Ph.D. (Glasgow), D.Sc. (Sask.), F.R.S.C. — A Career Résumé

Paul Copper and Jisuo Jin

Abstract: This issue of the Canadian Journal of Earth Sciences is dedicated to Professor Glen Caldwell in honour of his extensive contributions to the field of paleontology and scientific publishing. After receiving his Ph.D. degree from the University of Glasgow in 1957, Dr. Caldwell joined the Department of Geological Sciences at the University of Saskatchewan, where he stayed for more than 30 years. During his tenure, he led the way in launching a new integrated curriculum, including paleobiology, geochemistry, and geophysics, and in organizing and equipping a vigorous research program. Dr. Caldwell also organized two international symposia on Cretaceous rocks of the Western Interior Basin of North America. Over the years he served on and made distinctive contributions to a wide variety of national and international professional organizations, including the American Commission on Stratigraphic Nomenclature, GAC, the International Union of Geological Sciences. Dr. Caldwell served as Vice-President of the Geological Society of Western Ontario from 1988 to his retirement in 1996. He continues to teach and serve various scientific organizations, and he remains a strong advocate for basic research grants.

Résumé : Ce numéro du Canadian Journal of Earth Sciences de la Terre est dédié au professeur Glen Caldwell en honneur de ses très grandes contributions à la paléontologie et aux sciences scientifiques. Après avoir reçu son doctorat (Ph.D.) de l'Université de Glasgow en 1957, le Dr Caldwell s'est joint au Département des sciences géologiques de l'Université de la Saskatchewan, où il a travaillé pendant plus de 30 ans. Durant sa titularisation, il a été l'instigateur d'un nouveau curriculum intégré, incluant la paléobiologie, la géochimie et la géophysique en plus d'organiser et de doter un programme de recherche dynamique. Le Dr Caldwell a aussi organisé deux symposiums internationaux sur les roches du Crétacé du bassin intérieur ouest de l'Amérique du Nord. Au cours des années, il a été membre de diverses organisations professionnelles nationales et internationales dont l'American Commission on Stratigraphic Nomenclature, l'AGC, le CRSNG et l'Union internationale des sciences géologiques; la contribution qu'il leur a apportée revêt un caractère distinct. Le Dr Caldwell a été vice-président (recherche) pour l'Université de Western Ontario de 1988 jusqu'au moment de sa retraite en 1996. Il enseigne toujours et continue à siéger au sein de diverses organisations scientifiques et, de plus, il défend vigoureusement les subventions à la recherche de base.



Journal canadien des sciences de la Terre est consacré au professeur Glen Caldwell en honneur de ses très grandes contributions à la paléontologie et aux sciences scientifiques. Après avoir reçu son doctorat (Ph.D.) de l'Université de Glasgow en 1957, le Dr Caldwell s'est joint au Département des sciences géologiques de l'Université de la Saskatchewan, où il a travaillé pendant plus de 30 ans. Durant sa titularisation, il a été l'instigateur d'un nouveau curriculum intégré, incluant la paléobiologie, la géochimie et la géophysique en plus d'organiser et de doter un programme de recherche dynamique. Le Dr Caldwell a aussi organisé deux symposiums internationaux sur les roches du Crétacé du bassin intérieur ouest de l'Amérique du Nord. Au cours des années, il a été membre de diverses organisations professionnelles nationales et internationales dont l'American Commission on Stratigraphic Nomenclature, l'AGC, le CRSNG et l'Union internationale des sciences géologiques; la contribution qu'il leur a apportée revêt un caractère distinct. Le Dr Caldwell a été vice-président (recherche) pour l'Université de Western Ontario de 1988 jusqu'au moment de sa retraite en 1996. Il enseigne toujours et continue à siéger au sein de diverses organisations scientifiques et, de plus, il défend vigoureusement les subventions à la recherche de base.

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Professor Glen Caldwell, a Scot by birth, completed the Ph.D. degree of the University of Glasgow, Scotland, in June 1957 and two months later accepted a faculty position in Canada at the Department of Geology of the University of Saskatchewan, with responsibility for initiating a teaching and research program in paleontology. This began a residency of more than 30 years. His first summers were spent inside the Arctic Circle, where he used his background in

Palaeozoic paleontology to guide the Shell Oil Company's field parties mapping the Mackenzie and Richardson mountain fronts and flanking tundra. In return, he was allowed to retain for the University's use a research collection of (mainly) Devonian brachiopods and corals. At the same time, he launched a study of the Cretaceous outcrop belt in the South Saskatchewan River valley to generate a contrasted kind of research collection and to serve as a local field area for honours and graduate students. By 1961, a range of course offerings in paleontology was in place, a separate paleontology laboratory had been built, a vigorous research program in selected megafossil groups was gaining momentum, an initial excursion into micropaleontology (local Cretaceous foraminifera) had proved successful, and three of his earliest M.Sc. students (one of them, PC, an author of this resume) were ready to graduate.

In the subsequent decade, Glen Caldwell expanded his program in the Cretaceous rocks of the Great Plains, in part relying on near-complete systemic sections encountered in a series of mine shafts being sunk across the province to the underlying potash-rich Prairie Evaporite. Systematic sampling of these sections became the basis for developing a sequence of foraminiferal zones for the province and for many other kinds of stratigraphic studies. Extension of his Cretaceous work eastwards and westwards from southern Saskatchewan led later to expanding the preliminary foraminiferal zonal scheme to the entire Canadian prairie region and to biostratigraphic reinterpretation of much of the regional stratigraphy. In 1973, he organized at the University of Saskatchewan an international symposium attended by a broad cross-section of Cretaceous workers from Canada and the U.S.A. to discuss the unitary character of the Cretaceous Western Interior Basin of the continent.

In 1971, Glen Caldwell became Head of the Department of Geological Sciences in the University of Saskatchewan. Under his leadership, he and his colleagues reformed the curriculum to meet the demands of the new plate-tectonic era, gradually increased the number of faculty and graduate students, launched with colleagues in biology a new degree option in palaeobiology, developed research programs in geochemistry (including one directed specifically at the regional Cretaceous rocks), and bound geophysics inextricably to geology (if with separate degree programs) in an integrated and well-balanced earth-science department. He then took on the challenge of extricating the department from its woefully inadequate quarters in the old engineering building and relocating it, attached to a Natural Sciences Museum that he conceived, in a gracious new building on the central "Bowl" of the Saskatchewan campus. When the new building opened in 1986, it housed a full range of modern geochemical analytical equipment; a computational centre, principally to service seismology and other fields of geophysics; and elaborate displays of earth history, minerals, rocks, and fossils suitable for the public, as well as students. Much of the specialized equipment was secured through a \$3-million alumni and private-sector fund-raising campaign, which Glen Caldwell conducted with the full support of the university. In the attached museum, by then operated jointly with the (adjacent) biology department, the evolution of the vertebrates was illustrated by full-sized fossil replicas in their natural settings and by selected modern animal and plant an-

alogues. The geology department had grown by that time to eighteen permanent faculty, including three Natural Sciences and Engineering Research Council of Canada (NSERC) Steacie Memorial Fellows, an endowed chair, and a graduate school of more than 70. For the building opening, Glen Caldwell organized, jointly with his long-term friend, Professor Erle G. Kauffman of the University of Colorado, a second international symposium on the Cretaceous rocks of the Western Interior, designed as a planning component for a second broad-based review of the basin's stratigraphy. The resulting volume has been described by a reviewer in *Cretaceous Research* as destined to become "a classic," ranking, "among the most important contributions ... on Cretaceous geology to appear in decades."

While all this was going on, Glen Caldwell was serving a wide variety of national and international professional organizations, to all of which he made distinctive contributions beyond those expected of the offices he held. For example, as a member of the American Commission on Stratigraphic Nomenclature, he was involved in making several much-needed amendments to the *North American Stratigraphic Code* and, as Commission Chairman (1977), he launched the major revision of the Code that resulted in the version still in effect today. Between 1974 and 1994, he served on more than a dozen NSERC committees, including the Grant Selection Committees for Earth Sciences (Chairman 1977) and Scientific Publications (Chairman 1981); the Committee on Grants and Scholarships (1984–87), as Group Chairman for Chemistry and Earth Sciences, the Grants Committee (Chairman 1988–94); and, for a double term, the Council itself and its Executive Committee (1988–94). In these roles, he was regarded as a consistently strong advocate for the basic Research Grants program. As Chairman of the Geological Association of Canada (GAC) Publications Committee (1975–80), he standardized the format of the Special Papers series, obtained the first (and paved the way for annual) NSERC grants to support both these volumes and *Geoscience Canada*, and proposed that Canada should have its own series of palaeontological monographs, called *Palaeontographica Canadiana*. Then as President of GAC (1981), he signed the agreement with the CSPG that made the monograph series a reality, jointly sponsored by the two societies. During his term as President of the Canadian Geological Foundation, he worked with Treasurer, Hugh Morris, in instituting statutory modifications to enable the Foundation to receive and process funds for the advancement of the earth sciences in Canada from a greatly widened array of sources. As President of the Canadian Geoscience Council (1994), he instigated the major review of the future of the earth sciences in Canada that led to the "Barnes Report" (*Geoscience Canada*, 22, 1995). Elected a Vice-President of the International Union of Geological Sciences (IUGS) in 1988, he is described by the current President, Robin Brett of Washington, D.C., in these terms: "Glen Caldwell's experience and wisdom made him one of the best vice-presidents IUGS ever had, contributing more than any other I have known in my long association with the Union."

A long-held interest in scientific publishing led to Glen Caldwell serving in numerous editorial roles. After being an associate editor of various journals, he became Books Editor for the Geological Society of America in 1980, a position he

relinquished only after being appointed Editor of the *Canadian Journal of Earth Sciences*, which post he held from 1982–88. As Chairman of the National Advisory Board for Scientific and Engineering Publications, he was an immediate supporter of the National Research Council of Canada (NRC) Research Press's initiative to supplement its journals program with a books (monographs) program; and he has recently persuaded the Board to launch a new Earth Science Series of these works.

In 1988, Glen Caldwell became the first Vice-President (Research) of the University of Western Ontario (UWO), a post he held essentially until his retirement in 1996. He himself has described this period as challenging and difficult, because of the unprecedented budget cuts then imposed on Ontario's universities. The current President of UWO, Paul Davenport, takes a different tack, however: he has written to us that, "Glen Caldwell's commitment to excellence in all disciplines of learning" made him "an outstanding first Vice-President (Research) at Western." He "paved the way for many of the research achievements we are now realizing." At Western, Glen Caldwell continued his Cretaceous research, but with the Western Interior now less accessible, he

also formed a partnership with his former student (and second author of this resume, JJ) and his long-time friend, Brian Norford of the Geological Survey of Canada, to work on the brachiopod faunas and biostratigraphy of the Hudson Bay Basin and their correlatives. In retirement, he continues to teach and to work for various scientific organizations, such as the Canadian Institute for Advanced Research (Council), the NRC Research Press (Monograph Board), and IUGS (Advisory Board for Publications, Chairman). He also continues to pursue research, adding to his list of about 100 scholarly publications, which includes a number of books and substantial monographic papers.

On behalf, particularly, of the fifty-odd graduate students whom Glen Caldwell individually supervised during his formal career, and who remain grateful to him for his ability to combine a gentle form of supervision with an unrelenting insistence on the highest possible standards of science and, equally, of scientific writing, we are pleased to have organized in his honour a symposium at the GAC meetings in Sudbury, Ontario (May 1999), and to have produced this special issue of papers by contributors to that symposium and other selected colleagues and friends.