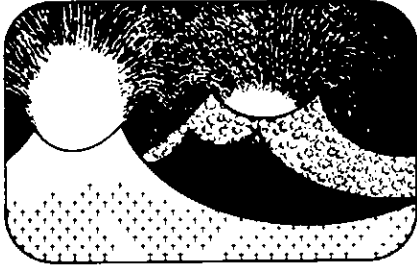


Features



Pyroclasts

Ward Neale

A Salute to Those Who Care

A few recent letters from foreign correspondents praised Canadian geoscience for the manner in which it is organized and integrated. One even mentioned a "thread of democracy" that seemed involved in most of its group actions. Accepting this truth led me to ponder why and how it was so and although I was unable to distinguish a divine pattern, the names and faces of many saints flashed before my eyes and therein lies the answer, at least in part.

Although geoscientists have emerged in the last ten years as probably the most actively organized of all our scientists, the national organizations are run wholly by volunteers with the exception of secretarial (generally part-time) help. This is in contrast to geoscience societies of equivalent size abroad. It is also in contrast to our engineers, physicists and chemists at home, for their societies have salaried secretariats managed by professional executive directors. Hence, when a Canadian geoscientist is elected to an executive body or a committee, she cannot look forward to a role of analysis and decision-making based on a sheaf of background documents prepared by a faithful secretariat. Instead she will have to gather the data and assemble it herself. This might mean calling on more volunteers to help and eventually a large segment of the community is involved. Possibly this means that committees of geoscientists

are more informed when they present briefs to mandarins and cabinet ministers, more spontaneous and innovative when they organize annual meetings. Although their numbers have almost doubled in the past 12 years, Canadian geoscientists have far more lines of communication and mechanisms for group action now than then. They owe this to a large number of selfless volunteers. Not only at the helm of our national societies but in other roles which have been mentioned before in this column: editing and refereeing papers for our various journals and serving on the demanding and thankless NSERC earth science grants committee.

As long as very capable, widely experienced geoscientists are available and willing to give free advice, individuals and groups should take full advantage of it. Which brings me to another favorite topic:

Academic Snoopers

The head of a geoscience department in central Canada wrote recently to state that he agreed with the concept of external visiting committees but wondered how departments could meet the enormous fees that must be involved to attract the right people to such committees. He suggested that the Canadian Geoscience Council should act as the funding agency. Rather impractical as Council's total annual income from the 14,000 members of its 11 national societies is \$3,000.00, less than 25 cents per member. It, too, is a voluntary organization. Besides, some members (particularly one in the eastern part of the country) have already expressed serious worries about the possible wanton waste of their precious quarters on university investigations.

But this department head need have no financial worries. No regular, annual visiting groups that I know of are rewarded by fees or honoraria. The university generally pays travel and accommodation costs (and the company scientists generally refuse it), but that would amount to a mere pittance in central Canada where a wealth of critical outside talent is generally within easy commuting distance. One university did not even ante up with basic

expenses a few years ago but still had no trouble securing competent advisers.

Such external committees are worth their weight in gold at current prices. They usually include people from industry, government and another university and they do not restrict themselves to research topics as do NSERC committees or to curriculum matters as do engineering accreditation committees. Most of them are interested in all facets and functions of a department: management, spirit, maltreatment of students, feuds with other departments, balance between teaching, research and other activities, evaluation of end products. Universities, supposedly the bastions of freedom and forward thinking, are often closed books to outsiders, with secrets much more closely guarded than those at RCMP headquarters. Let a few visitors in every year to sweep the cobwebs and clean the air – once accustomed to it even the inmates will breathe more easily.

Even Government Navels Can Be Bared

Governments and industries usually have to pay for services donated freely to universities – but not for external committees. The visiting committee to the Geological Survey of Canada included some of the best known geoscientists in the country: Don Weir, Jack Mollard, Dave Strangway, Athol Sutherland Brown and Alan Coope. They donated their services at frequent intervals for over two years, travelling from Halifax to Vancouver to categorize and assess the Survey's many activities. Now the last three of them and a few more Geoscience Council nominees are continuing with a second phase of the study.

I bet that the provincial geological surveys could get similar people to volunteer for similar committees who would visit their premises, talk to staff and customers and offer useful comments and advice. No money would be required save travelling expenses – chiefly needed is the courage to invite in a peer group to examine your operation rigorously. A great deal of

courage when your superiors do not demand it and your staff (sometimes with reason!) are afraid of it.

Think Negatively

A provincial mines department geologist recently queried the need for the current Geoscience Council study of university geology and geophysics. He stated that such studies served no useful purpose, especially since there had been no significant changes in Canadian geoscience, particularly university geoscience, since the Blais study was completed 12 years ago. A great example of a head frozen into an aeolian deposit! The plate tectonic revolution was just being belatedly accepted in Canada when the Blais report was completed. Since then, the energy crisis has resulted in an unprecedented demand for geoscientists sustained for the past five years and likely to continue for at least another five, undergraduate enrolment has doubled and graduate enrolment increased by 50 per cent. Geoscience departments that were scarcely heard of 10 years ago are now among the most innovative and active research groups and have some of the largest enrolments in the country. At least two provincial surveys that had not sent parties to the field for years are now large and active groups.

One can become too provincial in one's outlook.

Right Hand, Left Hand?

When one reads of very contradictory statements coming from two sources in the same institution one commonly (and unjustly) thinks of government – certainly not efficient, well managed private enterprise. In reply to a recent questionnaire, a very senior person in a medium-sized company replied on behalf of his scientific staff that our universities were producing far too many geologists and just the right number of geophysicists. Further, he stated that the company had an enormous number of applications for each vacancy. A surprising situation when compared with other company responses. Two months later, personnel people from the same company were seeking information from the questionnaire people concerning future graduation rates. It seems they were already recruiting abroad due to short supply in Canada and they wished to find out how much farther they would have to spread their nets in the years ahead. The personnel chap further stated that his modestly sized company could alone absorb more than 10 per cent of our national output of geophysicists over the next five years.

The Egg Heads of Calgary

Even although Ph.D.'s are not especially welcomed into petroleum operations units, it is astonishing how many end up at or near the top. There are not many spread through the ranks, however.

The people's oil company, PetroCan, leads the pack in this regard with 17 on staff in 1979, contrasted with 10 apiece for Shell and Gulf. PetroCan's complement might increase in the years ahead as it moves into its new research building and beefs up its in-house research activities. If done properly, it might induce other Canadian controlled petroleum companies to carry out some applied research, if not in-house then possibly through university laboratories.

PetroCan, incidentally, with 146 geologists and geophysicists on staff is second to Gulf (160) and ahead of Shell (136) as a major employer of geoscientists. None of the others are close to these leaders.

A Best Seller on the Way

The Geoscience Council report on Geology and Geophysics in Canadian universities is nearly complete. It should be available shortly after you read this. It covers almost everything: enrolments, student/staff ratios, professors highest degrees and current salaries, mining and petroleum companies views of students, government agencies' views of research, students' views on life. There are hundreds of opinions, dozens of surprises and even a sprinkling of facts – all in a simple, convoluted style that will entertain your Aunt Mame. It will be published in cooperation with the GSC as Paper 80-6. Look for it at your newstand, do not wait for a Globe and Mail review by Geoffrey Stevens.

Give A Cheer For

●Two great innovators of our time: *Gerry Middleton*, founding editor of this magazine who will be awarded the GAC's Logan Medal in May; and *Bill Hutchison*, founding editor of *Geolog* who will receive the Royal Society's Bancroft Award in June.

●*Norman Wardlaw* of Calgary who shared with J. P. Cassan, the CSPG Medal of Merit. Norman has also been appointed as Chairman of the NSERC E/S Grants Committee, succeeding Chris Barnes.

●*David Strong* is again bringing gongs back to Memorial, he is this year's winner of the GAC Past Presidents Medal.

●*Charlotte Keen* of G.S.C. Dartmouth, *Tony Naldrett* of Toronto and *Bill Fyle* of Western Ontario will be installed as Fellows of the Royal Society of Canada in June. Old hat for Bill who was elected F.R.S. (London) over 11 years ago.

●*Jon Dudley*, grad student of U. of Calgary had the pressure on this year but he still won the John Webb Memorial Award and also a special M.A.C. Prize for best paper at the Western Students Geological Conference. This makes it five straight for Calgary's silver throats of the golden west.

●*David Strangway* who after a taste of presidencies (GAC, CGC) is again reverting to a vice presidency – but a mighty one! He becomes Provost and Vice President (Academic) of U. of Toronto in July 1980.

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