The Society of Economic Geologists

by Richard W. Hutchinson

As the third in a series of profiles of geoscience organizations affiliated to IUGS, this article reviews one of the most important societies in the field of economic geology. With its 2,500 members, SEG has long been regarded as a predominantly North American organization. However, as the author explains here, SEG is now working to expand its membership and activities to other parts of the world. (Ed.)

Origins

The Society of Economic Geologists (SEG) is an outgrowth of a meeting in late 1919 of a group of members of the Geological Society of America (GSA) who had special interests in applications of geology to the resources field. The list of founding members includes 16 prominent names from which an organizing committee of seven, considered representative of the broad resources profession, was elected. This group deliberated over the scope of the new society's work and its relations with GSA and the American Institute of Mining Engineering (AIME). It then named 60 potentially interested professionals to whom the proposed plan and a preliminary constitution were submitted.

This larger group voted on and selected the name of the society and its first officers. Among this group were many geologists who made significant contributions in this field. Perhaps the best known were A.M. Batemen, W.H. Emmons, L.C. Graton, J.F. Kemp, A.C. Lawson, W. Lindgren, R.A.F. Penrose Jr., R.H. Sales, J.E. Spurr and H.V. Winchell. A constituting meeting followed on December 28, 1920, and marks the birthday of the Society. Within a few years SEG membership doubled several times with the addition of many distinguished members, including Herbert C. Hoover, later President of the U.S.A.

SEG Today

As intended by its founders, the Society is today a scientific and professional organization of individual members, international in character and membership. The constitution defines its purpose as "advancement of the science of geology, especially scientific investigation of mineral deposits and their applications to mineral resource appraisal, exploration, mining and other mineral extractive endeavors." The Society is also devoted to "dissemination of knowledge about these studies and applications through SEG publications, meetings, symposia, conferences, field trips, short courses, workshops, etc." A third purpose is "advancement of the status of the profession of geology and maintaining high professional and ethical standards among its members."

Figure 1: R.A.F. Penrose, Jr. First President of SEG. Photo courtesy of GSA, Boulder, Colorado.

The Society's membership, currently numbering about 2,500, is centered in the United States and Canada, but includes scientists from about 54 other countries. Its affairs are directed by a full-voting Council of 25, including an 8-person Executive Committee; these meet twice yearly. The President and Vice-President are elected annually by the membership, and councillors are similarly elected for three-year terms. However, the Secretary, Treasurer, Membership Secretary and Vice-President for Regional Affairs serve for undefined terms, bringing continuity to the Society's operations. Table 1 lists the current officers in these categories. All officers and councillors serve voluntarily, as do the many members of the standing committees. The major activities of the Society are the planning, organization, and presentation of two technical programs each year. One of these is held jointly with the annual autumn meeting of the GSA and its divisions and associated societies. The other is held each winter jointly with the annual meeting of the Society of Mining Engineers of AIME.

The Society's program at each of these meetings includes one or more symposia on selected topics in economic geology involving invited speakers and a number of general sessions for which speakers and topics are selected from solicited and voluntarily submitted abstracts. Planning for these meetings begins three years in advance with the appointment of a Program Chairman who subsequently submits a meeting agenda for approval by the Society's Program Policy Committee and, ultimately, by its Council.

In connection with both annual meetings, and sometimes independent of them, the Society organizes field trips to mineral deposits or districts, usually in the region of the meetings but occasionally to distant locations, including in the past two years Ontario and Chile. These trips last from one to ten days and, like the technical programs, are conceived and planned in advance under the guidance of the Program Chairman, but are led by selected Society members who are experienced with the deposits or districts to be visited. The trips are operated on a non-profit basis with participants paying all direct costs.

SEG also sponsors annually the Thayer Lindsley Visiting Lecture series, which provides for two eminent scientists to lecture at colleges and universities in various parts of North America, an International Exchange Lecture Series and a Distinguished Lecture program that provides for a speaker at one of the Society's two yearly meetings.

Figure 2: Some distinguished SEG members at Geokongres '75 in South Africa. Included are five who are now former Presidents of the Society: W.C. Kelly (U.S.A. - 2nd from L, back row), H.D.B. Wilson (Canada - on Kelly's right), J. Kalliokoski (U.S.A. - 5th from L, back row), C. Meyer (U.S.A. - extreme R, back row) and P.K. Sims (U.S.A. - checked jacket). Others present L to R back row are J. Touret (France), H. Wynne-Edwards (Canada), D.R. Bowes (U.K.), G.W. Bain (U.S.A.), and H. Martin (F.R.G.); L to R front row: W.J. Verwoerd (South Africa), E.F. Stumpfl (Austria) and P. Ypma (Australia).

Awards for excellence are also a part of SEG's activities. The Society's highest, the SEG Penrose Gold Medal Award, bears the same name as the perhaps better known GSA award. However, the SEG medal was established in 1923 and first bestowed in 1924, three years before the GSA medal of the same name. It is interesting to note that the first recipient of both Penrose awards was Thomas Chrowder Chamberlain. The SEG Silver Medal is awarded annually for "excellence in original work in the geology of mineral deposits." The Society's Lindgren Award is given annually to a scientist under 37 years of age in recognition of published research that represents an outstanding contribution to economic geology.

The Society's official bulletin is the highly regarded journal, *Economic Geology*. This is published by the Economic Geology Publishing Company (PUBCO), which was founded in 1905, fifteen years earlier than the Society. PUBCO is closely affiliated with the Society, again through a partially overlapping directorate, but it is an autonomous organization with independent policies and finances.

Financing SEG

Funding for SEG activities is provided through income from annual dues, an investment portfolio overseen by its Finance Committee, and the Society of Economic Geologists Foundation, which supervises an endowment provided over the years by gifts from members, friends, and companies. The Foundation was established in 1966 to aid in the advancement of knowledge in all phases of economic geology, particularly for scientific, literary and educational purposes such as lectures, meetings, publications and the maintenance and dissemination of geological information.

In its short existence, the Foundation has enabled SEG to establish the Thayer Lindsley Lecture Program, the International Exchange Lecture Series, several symposia (e.g. the Cameron Symposium on Unconventional Sources of Minerals, New Orleans, 1982; Shanks, 1983), and field

conferences in important mineral districts. The Foundation has also supported special issues of *Economic Geology*. Its programs are revised and expanded as funds become available, and suggestions for new activities worthy of support are welcomed. The Society and the Foundation have an interlocking directorate that elects Trustees who control the Foundation.

Recent Moves

In recent years the Society has broadened its activities and services to its members and to the profession by presenting two short courses, on the Geochemistry of Hydrothermal Systems (Henley et al., 1984) and on the Geology and Geochemistry of Epithermal Systems (Berger and Bethke, 1985). A third course will be held in late 1986 (Fletcher et al., in press). These short courses are held for two or three days preceding or following the annual meetings and, like the field trips, are planned on a non-profit basis, with participants covering all direct costs.

TABLE 1

On-Going Officers of SEG

Secretary:	J.F. Murphy P.O. Box 571 Golden, CO 80402 U.S.A.
Treasurer:	R.W. Marsden Department of Geology University of Minnesota-Duluth Duluth, MN 55812 U.S.A.
Membership Secretary:	M. Chaffee U.S. Geological Survey P.O. Box 25046 Federal Center M.S. 973 Denver, CO 80225 U.S.A.
Vice-President for Regional Affairs:	R.W. Hutchinson Department of Geology Colorado School of Mines Golden, CO 80401 U.S.A.

The Society, with financial support from the SEG Foundation, has recently arranged the publication in a new series entitled "Reviews in Economic Geology" of short course notes, and a set of reviews and synthesis papers. These have been particularly well received and their sale has generated a modest surplus that will support future short courses and other SEG activities. At present the Society and the Foundation are arranging for publication of field trip guidebooks that will outline the routes and geological coverage of the various field trips taken at SEG meetings, both past and present.

International Links

The Society maintains contact with, and attempts to serve its international membership, through a Vice-President for Regional Affairs (Table 1) and six Regional Vice-Presidents for Europe, Asia, Africa, Australia, South America and North America (Table 2), all of whom are members of the SEG Council. The Regional Vice-Presidents are members from the designated regions who are elected for three-year terms. Candidates for these vice-presidencies are proposed

TABLE 2

SEG Regional Vice-Presidents

ASIA

S. Ishihara
Geological Survey of
Japan
Higashi-1-3, Yatabe
Tsubuka Ibaraki 305
Japan

AFRICA

M.J. Viljoen
Johannesburg Consolidated
Investment Co.
Geological Department
P.O. Box 231
Johannesburg 2000, S. Africa

NORTH AMERICA

R.L. Erickson
U.S. Geological Survey
Federal Center
Denver, CO 80225
U.S.A.

AUSTRALIA

D.I. Groves
Department of Geology
University of Western
Australia
Nedlands, W.A.
Australia

EUROPE

E.F. Stumpf
Institute of Mineralogy &
Petrology
Mining University
Leoben, Austria

SOUTH AMERICA

J.M.A. Forman
Rua das Acacias 101
Apt. 704, Gavea ZC 20
Rio de Janeiro G.B. 20 000
Brazil

by the Nominating Committee on the advice of the Vice-President for Regional Affairs, who attempts to rotate candidates among various countries or areas within each region.

The Society sponsors annually an International Exchange Lecture program that sends one of its distinguished members from North America on a speaking tour overseas and, in alternate years, brings an overseas scientist to North America. This program is coordinated by a committee currently chaired by D.F. Strong (Dept. Earth Sciences, Memorial University, St. John's, Nfld., Canada A1B 3X5), to

Figure 3: A briefing on the El Soldado copper deposit during an SEG field trip to Chile, March 1986. L - R: B. Hardie, R. Rivera, N. Christiansen, and M. Tippet (USA), H. Ruge and C. Holmgren (Chile). Photo by J.M. Guilbert.

whom all enquiries should be directed. In the past four years under this program, C. Meyer and B.F. Skinner from the U.S.A. have lectured in Africa, Asia and Europe, and R. Woodall (Australia) and M.J. Russell (U.K.) have presented talks in North America.

Currently the Society is actively seeking to increase its membership, particularly outside North America. Membership is open to economic geologists at two levels. Associate Members are those who obtained the Bachelor's degree less than nine years ago and are engaged in research or exploration related to the geology of mineral deposits, are enrolled as graduate students in geology, or are teaching geology. Full Members have a minimum of eight years of professional experience, including not less than five years devoted principally to economic geology, of which three years must have been in positions of responsibility. Graduates in geology or engineering can credit up to three years of full-time postgraduate study in geology toward the required eight years of experience. Geologists or engineers who have rendered signal service in applied geology are also eligible for membership, provided they have the required eight years of experience.

Current annual membership dues are \$48 US for Members and \$45 US for Associates. All members receive advance notice of the services discussed here, an annual subscription to *Economic Geology*, and a modest discount on other Society publications. Inquiries about membership should be directed to the Membership Secretary (Table 1), who will provide the required forms and attempt to locate sponsors to support membership applications.

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