Speaking of Science

Renewing European Geophysics: Importing an American Model

Zürich, Switzerland. What was for European science an unusual, even somewhat revolutionary event took place the last week in September in this otherwise staid capital of Swiss finance. The occasion was the establishment of a new professional society and the novelty was the sight of graduate students presenting papers to an international audience composed largely of senior scientists.

It was the first formal meeting of the European Geophysical Society (EGS), and it brought together seismologists, sedimentologists, specialists in paleomagnetism, and other geophysicists from more than 20 countries, including the United States. Unlike what is often the case at international meetings, the 500 scientists and graduate students in attendance were present as individuals and not as official delegates from their countries. The meeting itself was correspondingly informal, and it featured a broad range of topics, from alpine geodynamics to deep-sea drilling and lunar research. The interdisciplinary emphasis and the efforts to provide a forum for younger scientists represent a new beginning for European geophysics—one that EGS founders hope will eventually help to democratize research practices and educational institutions and to improve the productiveness of European scientists.

The format of the Zürich meeting was strikingly similar to that of the annual Washington, D.C., gatherings of the American Geophysical Union (AGU), a circumstance that is far from accidental, since the EGS has modeled itself closely after the American example. The AGU has about 700 members in Great Britain and on the continent, some of whom have long admired the exchange of ideas and the opportunities for young scientists which AGU meetings provide. A number of English geophysicists, in particular, seem to have felt the lack of a similar organization in Europe, where international meetings tend to be by invitation only, thus effectively restricting attendance to well-established senior researchers, and where graduate students have very little chance to give papers or to mingle with scientists from outside their own laboratory.

The first steps toward forming a European AGU were taken at a 1969 meeting of geomagneticists and seismologists in Madrid, Spain, at an impromptu discussion led by S. K. Runcorn of the University of Newcastle upon Tyne. Out of that discussion came an expression of strong interest from scientists of several countries and plans to organize a prototype venture. Known as the First European Earth and Planetary Physics Colloquium, the trial run took place in Redding, England, in 1971 under the sponsorship of the British Royal Society, which also provided money to meet part of the cost. (The Zürich meeting was similarly sponsored and partially supported by the Swiss Society of Natural Sciences.) In 1973, the EGS formally came into existence with the adoption of a constitution and election of officers at the Zürich meeting.

The intent of the organization is to hold an annual meeting and to publish a newsletter. The meetings are to bring together scientists, both young and old, from both Eastern and Western Europe, and from divergent specializations. The EGS hopes to span three broad areas of research—solid earth and planets, hydrospheres, and atmospheres—and is to be further divided into a dozen sections by scientific specialties (essentially the same specialties that constitute AGU sections). Manuscripts for presentation at meetings are to be solicited openly throughout the scientific community, a practice almost unheard of in Europe, and special efforts to attract younger scientists (for example by lower membership fees and registration charges at meetings) are to be made.

Given the authoritarian structure and traditions of departments and research institutes in many European universities—what one English scientist characterized as "the Herr Professor nonsense"—the EGS has set itself ambitious goals. At the Zürich meeting, it was clear that these goals have not yet been fully realized. Many of the papers presented, for example, did not reflect the interdisciplinary attitude that the EGS hopes to foster. Student participation in the meeting was spotty, and it appeared that getting travel funds for students was still a problem in some countries—far more students came from English universities than from those in France or West Germany. And while the EGS hopes to attract meteorologists and oceanographers as well as seismologists and sedimentologists, this meeting program was dominated by solid earth geophysicists.

Nonetheless, the consensus among those attending the meeting was that it represented a considerable step forward for European geophysics. There were young scientists present—by one count, nearly 20 percent of those attending the Zürich meeting stayed in youth hostels. Scientists from nearly all of the East European countries, including the Soviet Union, were also present, a circumstance which suggests that the EGS may prove to be an effective, if informal, means of East-West cooperation. Perhaps most encouraging, there was an air of optimism that the new organization and its philosophy would soon catch on.

The newly elected president of the EGS, C. Morelli of the University of Trieste in Italy (the site of next years' meeting), told *Science* that geophysics is underdeveloped in many European universities. He believes that the EGS can improve that situation and, in the long term, help to reform these institutions. In a period when geophysicists all over the world are preparing to participate in the Geodynamics Project, an international and interdisciplinary program of research on the dynamics of the earth's interior, the founding of the EGS seems auspiciously timed. It also seems to indicate a process of self-renewal that augers well for the future health and vitality of the European geophysics community.—ALLEN L. HAMMOND