

THE GEOLOGICAL SOCIETY OF AMERICA, 1888-1963

ON December 28, 1888, the geologists of America, previously forming a group within the American Association for the Advancement of Science, started their own Society, the Geological Society of America, at a meeting in Ithaca. The list of Founder Fellows numbered 109.

Since that time the United States has progressed consistently in geological research, due mainly to its wealth in geological material. The exploration of the West, with the palaeontologists reporting on fossils, has led to important discoveries in the structure, the dynamics and the evolution of the vertebrates forming probably the most brilliant chapter in the earlier history of geology. The invertebrates, though deprived of a solid structure, left enough imprints throughout the ages to allow the palaeontologists to reconstruct a substantial part of their biological and evolutionary past. The origin of life and of the Earth are other subjects closely associated with the aims of geology. Coal, ores, petroleum, light and rare metals, radioactive elements, all are the concern of geologists, who must also be credited for advances in prospecting methods, in the study of the ocean floors, of water resources, earthquakes, and in the techniques of surveying and mapping. Geological engineering is a new development, and if man sets foot on a new planet, the chances are that this man will be a geologist.

The Geological Society of America acts as the academic body, the guardian of the science of geology and related earth sciences. Oceanography, seismology, astrogeology, the study of meteors, of the crust and the mantle of the Earth, the behaviour of rivers, wells, lakes, water resources, the construction of dams and tunnels, hydro-electric systems, location of mines, their development and prospecting, all need the helping hand of the expert geologist.

The Society soon formed one of the best trained groups of geologists in the world, and its efforts united and encouraged them, and helped them to overcome their earlier provincialism. Geology had come of age in the United States.

Still, in the early 1930's this was a rather small society (600 members), until one of its Fellows and one-time president, a practising geologist, professor and investor, son of a prominent Philadelphia family which had been better known for its political connexions, bequeathed half his estate to the Society (the other half to the American Philosophical Society in Philadelphia). The benefactor was Dr. Richard A. F. Penrose, jun., who died on July 31, 1931, leaving to each society approximately 3,900,000 dollars, to be considered an endowment, the income of which was to be used and the capital to be properly invested. Probably no other small organization devoted to a relatively humble science was ever before so lavishly endowed. Although, in the succeeding years, the Society may have disbursed more than twice the value of the endowment, the capital fund still stands to-day in excess of the original valuation.

In the years following this gift, geological science has witnessed an almost explosive evolution to which the bequest has not been foreign. It revolutionized the Society, opened new vistas, supplied needed support, and raised the Earth sciences to their rightful place in scientific research. About 40 per cent of the income went to publications, and a large share to grants in aid of research.

The journal of the Society, the *Geological Society of America Bulletin*, a primary objective created in 1890, changed from a quarterly to a bi-monthly and, in 1935, to a monthly. It was the first publication in a position to add inserted charts and coloured maps to its text.

But the *Bulletin* was not enough to provide an outlet for manuscripts, particularly those too long or unsuited to a journal. From this need originated the more extended publishing programme of the Society, and the list of its *Memoirs* and *Special Papers* now numbers about two hundred. These volumes, of permanent value, are considered essential tools for research in the Earth sciences.

A *Bibliography and Index of Geology exclusive of North America* was authorized in 1932, of which 26 volumes have appeared so far, and in this series of annotated references the foreign geological literature is reported. This effort parallels and complements that of the U.S. Geological Survey, which publishes the *Bibliography of North American Geology*.

Another important enterprise is the publication of the *Treatise on Invertebrate Paleontology* in 24 volumes by 180 authors from all over the world: 12 volumes have been completed and 12 are in process.

Many geologists prefer accurate maps to descriptive texts. For their benefit the Society has allocated funds for the production of large wall maps, compiled from many dispersed smaller ones. Geological maps of North America, South America and Mexico, and glacial, tectonic, physiographic and ocean maps have been completed. This work continues.

Some 1,000 individuals have been assisted in their investigations by grants in aid at an average of about 1,500 dollars a grant.

The Penrose Medal (endowed as early as 1927) is the greatest honour bestowed by the Society and is highly prized among the awards to which geologists of the world are eligible.

During November 18-20 the Geological Society celebrated its seventy-fifth anniversary when its meeting was held in New York (at the Hotel Commodore). The roster of Fellows, Members, students and guests attending, from the original 109, exceeded 3,000.

The Geological Society of America has been fortunate in the continuity of its leadership. Its seventy-five years of history have been witnessed by only seven secretaries and six treasurers. The officers for 1963 are: *President*, Harry H. Hess; *Vice-President*, Francis Birch; *Secretary*, Joe Webb Peoples; *Treasurer*, J. Edward Hoffmeister.

At the time of convening in New York, the Society is leaving its stately home on the Columbia Campus, where for thirty years the welcome mat was out for visiting geologists. The mat will be moved to 231 East 46 Street, the new building acquired this year by the Society.

DURING the seventy-fifth anniversary meeting, three general symposia were held: (1) Relation of Geology and Trace Elements to Nutritional Problems; (2) Geology of Ocean Basins and Continental Drift; (3) The Principle of Uniformity.

Awards and medals were presented, namely: the Kirk Bryan Memorial Award, to Arthur H. Lachenbruch (U.S. Geological Survey); the Penrose Medal, to William W.

Rubey, University of California, Los Angeles; the Arthur L. Day Medal, to Keith E. Bullen, University of Sydney. Associated societies took part in the celebrations, namely, the Mineralogical Society of America, the Paleontological

Society, the Society of Economic Geologists, the Geochemical Society and the National Association of Geology Teachers. Some of these societies also presented awards at the meeting.

PREPARATION AND PUBLICATION OF GEOLOGICAL JOURNALS

A TWO-DAY meeting of editors of British geological journals, sponsored by Messrs. Oliver and Boyd, Ltd., was held in Edinburgh during October 11–12. The meeting covered a wide range of topics including instructions to authors; refereeing; preparation of manuscript for printer; relations with printer; design and layout of British geological journals; blockmaking; sales, distribution and costs; index cards.

Suggestions as to ways of reducing editorial chores were few. The solution seems to rest largely with the author and the better preparation of his script. The *World List* reference style has been adopted by most geological journals in the past few years, but inconsistency in references still remains an editorial problem. More uniformity in instructions to authors was welcomed by some, but not all, of the editors present. It was understood that the Geological Society of London's detailed notes to authors are due to be revised, and the hope was expressed that much of the material in the new edition would prove to be of general use. Certainly the plea for a more uniform treatment and a higher standard of diagrams was welcomed by those present.

Mr. Thomson (Oliver and Boyd) discussed editorial relationships with the printer. A clean copy, as always, is much to be preferred. Once the printer knows a journal style, only a small amount of mark-up, such as the centring of headings and indenting, is required. He revealed that printers generally keep notes of the style of each journal, including the spelling of scientific words peculiar to that journal, and that uniformity of style from issue to issue is achieved by using the same compositor.

It was agreed that authors did not appreciate the high costs involved in even minor alterations (as was proved by a visit to the compositors' room), and all the editors welcomed the opportunity of acquiring copies of *Authors' Alterations Cost Money and Delay*, produced by the British Federation of Master Printers. This pamphlet would be sent out to authors at the proof stage. The suggestion was made that authors should be charged for all alterations, printer's errors apart, that they made to the proofs. The advantages of this scheme lie in the saving in costs and in quicker publication since it might be possible to omit the galley proofs and go straight into page proof. The disadvantage lies in a less-than-perfect final copy in which the errata are confined to a short appendix.

Mr. Ian Wilson, chairman of the Scottish Council of Industrial Design, provided one of the highlights of the meeting by making a candid assessment of the design and layout of British geological journals. He classified them into three groups, 'Pleasing', 'Nothing special but some care shown', and thirdly, 'Nothing done since first published'. It would be invidious to classify them here, but several general criticisms are worth making. They included: poor type-faces; wrong size of type in relation to the length of line; too yellow a paper; paper too bulky; paper of different colours in the same issue; too many type faces (and therefore added costs); generally poor quality of diagrams; and, with one exception, unnecessarily drab colours of the covers. He wondered why journals did not print more frequently on both sides of the art paper used for plates. He suggested that some schools of art or of printing would welcome the opportunity to re-design

a journal. The defence to Mr. Wilson's arguments was that more attractive layouts usually cost more money, and if costs increased by, say, 10 per cent, then 10 per cent fewer papers would be published, to which Mr. Wilson rejoined that there is little use in printing papers if they are not readable. The general feeling among the editors was that presentation could certainly be improved and that this could be done in collaboration with the printer. A useful suggestion made during this discussion was that the page numbers should be printed on the spine of each part.

Mr. Hislop (Hislop and Day) discussed methods of blockmaking. He thought that geological diagrams were better than the average, his main criticism being that originals are generally too large. Reduction to less than half size should be avoided. He reminded editors and authors of the necessity of marking the top of each photograph, and of having soft rather than contrast prints. Contrast can always be increased but not reduced. He thought that Letraset was good for lettering and recommended a new photographic process of lettering called Starlettograph-Lichtsatz (Munich).

Mr. Douglas Grant (Oliver and Boyd) reminded editors of the necessity of watching costs. They should ask for detailed invoices from their printers so that the costs of the different items such as paper, composition, corrections, machining, etc., can be determined. Offprints should be ordered before printing so that the required number of plates, and in long articles certain of the printed sheets, can be run off during the main printing. Variations in type sizes and type faces can increase printing costs and should be reduced to a minimum: a supply of reviews and short articles should be kept so that the part can be brought up to a multiple of 16 pages: wherever possible vertical rules in tables should be removed because of the expense of setting.

The meeting was told by Mr. Inglis (Oliver and Boyd) of discounts, commission and distribution. Individual small costs add up to impressive totals, ranging from invoices at $\frac{1}{4}d.$ each, through envelopes costing $1\frac{1}{4}d.$ to $6d.$ for the carton sizes, to postages for larger parts at $2s. 3d.$ Small wonder that some journals (not geological as yet) find it difficult to run to six parts annually and are considering a quarterly issue.

Index cards, the last item on the agenda, had been tried out by the editors of the *Transactions of the Edinburgh Geological Society* in a recent issue, with the view of providing subscribers with abstracts for use in filing systems. Each copy contained 5 in. \times 3 in. cards, one for each of the papers, bearing the author's name, title of the paper, journal reference and the author's abstract (not exceeding 250 words). The cost worked out at a little less than $1d.$ a card and represented some 3 per cent of the total cost of the part. Such cards were welcomed, but it was felt that their spread to other journals would be more influenced by subscriber pressure than by editorial decision.

The overall impression at the end of the two days of useful discussion was that it was greatly to the advantage of journals that the editors should see more of the printer and that a more satisfactory relationship should be established between author, editor and printer.

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