

MEETINGS

FORTHCOMING MEETINGSBiostratigraphic Seminar, University of Ottawa

This meeting, originally scheduled for November 1966, has been put over until mid-February 1967. Intending participants are urged to contact DR. D.L. DINELEY, Department of Geology, University of Ottawa, Ottawa 2, Ontario, for further details.

Northeastern Section, Geological Society of America: annual meeting

March 16 - 18, Hotel Somerset, Boston, Mass.

A tentative program has been proposed for this meeting, lasting three days, featuring symposia on Marine Geology (full day), Geophysics, Hydrogeology, and the Pleistocene (half day each). Other sessions include two, on the first day, devoted to the Geology of the Northern Appalachians. It is hoped that not more than three sessions will be held simultaneously. The Program Chairman is DR. MARLAND P. BILLINGS, Geological Museum, 24 Oxford Street, Cambridge, Mass. 02138.

Papers of interest include:

Marine Geology

- L.H. KING: Submarine end moraines on the Scotian Shelf
- D.J. STANLEY: Sediment dispersal in a micro-fiord, North West Arm of Halifax Harbour, Nova Scotia
- D.J.C. LAMING and S.IKRAMUDDIN ALI: The Alma River intertidal fan, Bay of Fundy
- D.J.P. SWIFT and R.M. McMULLEN: Tide-maintained sand bodies in the Bay of Fundy
- J.D. SMITH: An investigation of the origin and stability of a sand ridge
- J. SCHLEE: Texture of bottom sediment on the continental margin off northeastern United States
- J. HÜLSEMAN: Organic constituents in continental shelf sediments between Hudson Channel and Nova Scotia
- G.S. GIESE: Movement and shape sorting of beach pebbles
- J.V.A. TRUMBULL: Geologic observations in an east coast submarine canyon from a manned submersible
- R.M. PRATT: Submarine canyons in the continental rise off the northeast coast of the United States
- C.D. HOLLISTER and B.C. HEEZEN: Transportation and deposition of deep-sea sediments along the continental rise by deep geotrophic contour currents
- D.W. FOLGER and B.C. HEEZEN: Suspended matter and the eolian contribution to deep sea sediments

Stratigraphy

- E.L. BOUDETTE et al: Geology of the Upper St. John and Allagash River basins, Maine

- O. GATES: Silurian volcanic submarine slides in southeastern Maine
 D.S. HARWOOD: Fossiliferous pre-Silurian and Silurian rocks in the
 Cupsuptic quadrangle, west-central Maine
 N.P. CUPPELS: Geologic implications of undeformed fossils in the
 Newbury Formation of pre-Acadian age in northeastern Massachusetts
 G. THEOKRITOFF: Early Cambrian biogeography and biostratigraphy in
 western New England
 B.S. OWERSBY: Ordovician-Silurian relationships on Upper Black Island,
 northeastern Newfoundland
 N.D. SMITH: Lower and Middle Silurian fluvial sedimentation of the
 north-central Appalachians

Pleistocene Geology, Geomorphology and Hydrogeology

- D. MILLER: Hydrogeology of glacial deposits in New England
 D. O'BRYAN: Accumulative effects of drought on the hydrology of the
 northeastern United States
 D.R. WIESNET et al: Preliminary results of an infra-red imagery survey
 on the Merrimac River estuary, Massachusetts
 J.E. COTTON et al: Response of the salt-water front to withdrawal of
 fresh groundwater, Great Island, Cape Cod, Massachusetts
 R.L. NICHOLS: Geomorphology of Inglefield Land, northwest Greenland
 C.C. LANGWAY, JR.: Stratigraphic properties of polar firn and deep
 ice cores
 R.L. FARNSWORTH and C.W. WOLFE: Analysis of Massachusetts erosion
 surfaces by the band width method
 B.C. McDONALD: Wisconsin stratigraphy and ice-movement directions in
 southeastern Québec
 N.R. GADD: The pattern of glacial recession in southeastern Québec
 D.A. LIVINGSTONE: Pollen diagrams from Canadian Appalachia
 M. STUIVER and H.W. BURNS: Deglaciation and early Postglacial submerg-
 ence in Maine
 C. KOTEFF and J.P. SCHAFER: Anomalous erosional furrows in southeastern
 Massachusetts
 A. DREIMANIS: Cary-Port Huron Interstadé in eastern North America and
 its correlatives
 J.P. SCHAFER: Retreat of the last ice sheet in New England
 C.G. CONALLY: Glacial geology of Mount Mansfield quadrangle, Vermont
 R.N. OLDALE: Pleistocene stratigraphy of Cape Cod, Massachusetts
 D.P. STEWART and P. MacCLINTOCK: The Pleistocene stratigraphy problem
 in Vermont
 C.G. CONALLY: Glacial geology of the Brandon-Ticonderoga region,
 Vermont

Structure and Geophysics

- R.W. BROMERY: Geophysical evidence of a pronounced east-west lineament
 in southern New England
 J.J. FISHER: Structural implications of the Narragansett Bay earthquake
 V.J. MURPHY and T.F. REXTON: Seismic studies of deep buried valleys
 in the Northeast
 J.W. SKEHAN: Evidence for easterly tectonic transport in the Appala-
 chians of eastern Massachusetts
 J. HELWIG: Tectonic significance of Lower Paleozoic slump folds,
 north-central Newfoundland
 F. FITZ OSBORNE: Logan's Line near Québec City

- E-AN ZEN: Stratigraphic-structural contrasts in thrust slices of the Taconic allochthon
- D.B. POTTER: Giant submarine slide blocks beneath east edge of Taconic allochthon
- J.T. WILSON: Did a Lower Paleozoic ocean through New England close and then re-open to form the Atlantic?
- B.R. RUST: Deformed cross-bedding in Tertiary-Cretaceous sandstones, Arctic Canada
- J. WARNER: Computer-aided structural analysis of the Buckfield quadrangle, Maine
- C.W. WOLFE: Crustal deformation under glacial loading and unloading by shifting Moho

Geochronology

- E. MENCHER, H.W. FAIRBAIRN, W.M. PINSON, JR., and P.M. HURLEY: Rb-Sr age investigation of the Brighton Volcanics, Boston Bay Group, Massachusetts
- H.W. FAIRBAIRN, M.L. BOTTINO, L.S. HANDFORD, P.M. HURLEY, M.M. HEATH, and W.H. PINSON, JR.: Radiometric ages of igneous rocks in north-eastern Massachusetts

American Association of Petroleum Geologists: 52nd annual meeting, 50th Anniversary Convention;

Society of Economic Paleontologists and Mineralogists: 41st annual meeting:

April 10 - 13, Los Angeles, Calif.

The general theme of the convention is "Rocks and Dollars", a sub-theme being "Deposition of Economic Reservoir Rocks". A preliminary list of papers to be presented, most of which concern the geology of western North America, may be found in the A.A.P.G. Bulletin, vol 50, no 10 (October 1966), p 2317-8. Field trips before and after the convention will visit such places as the Ventura Basin, Palos Verdes Hills, Santa Catalina Island and Death Valley, and for accredited scuba divers R.F. DILL is leading an underwater field trip at La Jolla (for further details, see the November 1966 Bulletin of A.A.P.G., p 2494-5).

VII International Sedimentological Congress

August 11-15, Reading and Edinburgh, Great Britain. Members will travel from Reading to Edinburgh on August 13.

The theme of the Congress will be "Theory and Experiment in Sedimentology". A number of special lectures from invited speakers will be given, but the main activity of the congress will be a series of formal discussion groups. Major subdivisions of the theme will be Mathematical, Physical Processes, Chemical Processes, Facies Products and Technology; participants in the discussion groups will be able to present contributions related to their work, completed or in progress. Informal discussion groups on more specialized topics will also be arranged. An extensive program of field trips is being organized, for both before and after the congress; the earliest starts on August 4th from Reading, and the last of the Scottish trips ends on August 22nd. Further details of the Congress may be obtained from The Secretariat, VII Sedimentological Congress, Sedimentology Research Laboratory, UNIVERSITY OF READING, Reading, Berks., England.

International Conference on Stratigraphy and Structure bearing on
Continental Drift in the North Atlantic Ocean

August 24 - 30, at Gander, Newfoundland

A number of international specialists have been invited to participate in this conference, which will try to bridge the gap between presentation of prepared papers and discussion of problems in the field (the latter on dry days, if there are any). Field trips are also being arranged before and after the conference. A tentative program of papers and field trips was published in the last issue (2-iii 147-8). Further details from DR. MARSHALL KAY, 310 Scherhorn Hall, Columbia University, New York, N.Y., 10027.

International Symposium on the Devonian System: September 6 - 8, Calgary, Alberta. A preliminary outline of this symposium was published in the January 1966 issue (2-i 45). Further details from The Secretary, International Devonian Symposium, P.O. Box 53, Calgary, Alberta.

VI International Congress of Carboniferous Stratigraphy and Geology: September 11 - 16, Sheffield, England. Field trips before and after. Details from A.W. WOODLAND, Geological Survey Office, Ring Road, Halton, Leeds 15, England.

REPORTS OF RECENT MEETINGS

Second International Oceanographic Congress, Moscow, U.S.S.R., May 30 -
June 9th, 1966

The Second International Oceanographic Congress convened at the LOMONOSOV STATE UNIVERSITY in Moscow on May 30th, 1966, under the chairmanship of ACADEMICIAN A.P. VINOGRADOV. More than 500 papers covering all oceanographic disciplines were presented before about 2000 delegates, including representatives from most North American oceanographic institutions. Papers dealing with new developments in marine geology were delivered in plenary session, in subsection meetings, and in special symposia. Some of the papers in the symposia on nearshore sedimentation and radioecology and radioactivity proved extremely worthwhile to those with sediment interests.

There were several negative aspects of major significance that reduced the value of the Congress. Too many papers were selected for presentation, and too many sessions were held concurrently. Many papers were poorly prepared and illustrated, or were too general and vague in content, lacked sufficient supporting data, or failed to introduce new principles that could have provided fresh insight to ocean study. It was difficult to move from hall to hall because of the layout of the rooms and the vast size of the building, and because the university was still in session at the time of the meetings. The difficulty of attending sessions covering different fields minimized the "cross-pollination" atmosphere so welcome in a well-organized congress. Furthermore, visits to a number of laboratories in the Moscow area proved disappointing: there was hesitancy on the part of most institutions to display equipment or to outline their major projects or functions adequately. Fortunately, this was not the case at oceanographic laboratories in Leningrad or on the Black Sea, which I was able to visit prior to and following the Moscow meetings.

On the positive side (and outweighing the negative aspects) was the rare opportunity to meet our counterparts in the Soviet Union and other nations behind the "iron curtain", and learn first-hand of their work. I am certain that cooperation in certain areas of research, on a limited basis, is now possible with several oceanographic institutions in the Soviet Union and Poland. The use of English by most participants did much to eliminate the language barrier. Organized cultural tours around Moscow, and direct contact with Russians also helped most of us revise our preconceived ideas about Russia, which often proved to be false.

It would be impossible to summarize the major scientific advances in oceanography presented to the Congress, in this short resume. Those interested are referred to reviews by R.H. CHARLIER and R.S. DIETZ in Science, vol 153, p 1421-8, and to a bound volume "Abstracts of Papers, 2nd International Oceanographic Congress" (Nauka Publishing House, Moscow, 1966, 423p.), available through the ARRANGEMENTS COMMITTEE, V-71, NAUKA, Moscow. Some of the papers in this volume pertaining to the northwest Atlantic and Arctic are listed below, though this list is, necessarily, incomplete and does not do justice to the range of subjects highlighted during the meetings:

- van ANDEL, Tj.H., and V.T. BOWEN: Relief and structure of the crest of the Mid-Atlantic Ridge at 22° and at 11° north latitude
- BARTLETT, G.A.: The significance of foraminiferal distribution in waters influenced by the Gulf of St. Lawrence
- BATES, C.C., F.A. BERRY, and R.A. GILCREST: Delineation of the axial position of the Gulf Stream based on composite sea surface temperature analyses
- BELOV, N.A., N.N. KULIKOV, N.N. LAPINA, and Yu.P. SEMENOV: Distribution of iron, manganese, carbonates and organic material in sediments of the Arctic Ocean
- FLOROVSKAIA, V.N., and N.M. VIKHRENKO: Transformation of the organic matter in Atlantic Ocean sediments
- BRIGGS, J.C.: Oceanic islands, endemism, and marine paleotemperatures
- CHOW, T.J.: Use of lead isotopes as tracers for oceanographic research
- DIETZ, R.S., and W.P. SPROLL: Marine geological aspects of continental drift and Gondwana
- DUNBAR, M.J.: Adaptation in marine communities to the polar environment
- EMELYANOV, E.M., et al: Sedimentation in the Atlantic Ocean
- EMERY, K.O.: The Atlantic continental margin of the United States during the past 70 million years
- EMILIANI, C.: The geochemical and paleontological analysis of continuous stratigraphic sections and the history of the Pleistocene
- ENGEL, A.E.J., and C.G. ENGEL: Composition of the oceanic crust and the underlying mantle
- GAKKEL, Ya.Ya., et al: Morphology, physical fields and deep structure of the Arctic Basin
- GRAHAM, J.J.: Coastal oceanography in the Gulf of Maine, 1962-65
- HESSLER, R.R. and H.L. SANDERS: The diversity of the benthic fauna of the deep sea
- HOYT, J.H.: Intercontinental correlation of late Pleistocene sea levels, southeastern U.S.A. and southern South West Africa
- ILYIN, A.V.: Some peculiar morphological features of the Mid-Atlantic Ridge
- KING, L.H.: Use of a conventional echo-sounder and textural analyses in delineating sedimentary facies, Scotian Shelf
- KLENOVA, M.V. Peculiarities of mechanical differentiation of the oceanic basins (as applied to the Atlantic)

- KRAUSE, D.C.: Relation of the Mid-Atlantic rift to the Azores Platform
 LAUZIER, L.M.: Sea-bed drifter observations in the continental shelf area of the Canadian Atlantic coast
 MALLOY, R.J. and R.N. HARBISON: Marine geology of the northeastern Gulf of Maine
 MANHEIM, F.T., R.H. MEADE and J.V.A. TRUMBULL: Suspended matter in surface waters of the Atlantic coast of the United States south of Cape Cod, Massachusetts
 MILLS, E.L.: The distribution of benthic amphipoda (Crustacea) in the deep sea between Massachusetts and Bermuda
 PELLETIER, B.R.: Marine geological aspects of Hudson Bay
 PIRIE, R.G.: Environmental characteristics of glacial sediments in fluvial, estuarine and marine waters
 SANDERS, H.L. and R.R. WHESSLER: Zonation in the benthic fauna of the deep sea
 STANLEY, D.J.: Sediment dispersal and submarine morphology of the Nova Scotian shelf and slope
 UDINTSEV, G.B.: Deep-sea geomorphology and tectonics
 VOLKOV, N.A. and Z.M. GUDKOVICH: Main results of ice-drift studies in the Arctic Basin

The papers presented at the Congress will not be published by the Arrangements Committee, but will appear as individual articles in scientific journals.

D.J. STANLEY

Geological Association of Canada and Mineralogical Association of Canada:
annual meetings, September 12 - 13, 1966, at Halifax, N.S.

On posters at strategic locations in the Nova Scotian Hotel, a cartoonist had portrayed a very hairy and well-muscled hominid ("GAC") leading a smaller (female) hominid ("MAC") in the traditional Old Stone Age fashion. The Halifax meetings, however, could mark the occasion when the old image of these two major Canadian earth science organizations, of "hard rocks and hairy men", finally began to disintegrate. A change in outlook and scope was obvious; and with increasing activity in the nation directed towards sedimentary geology, such a change is not only welcome but inevitable. Meeting in the Maritime Provinces for the first time, where sedimentary geology is clearly on the upswing, encouraged the organizations in this transfer of emphasis, and a preponderance of G.A.C. papers were on sedimentary topics. The most crowded sessions were those on Marine Geology, in which a succession of locally-based research workers gave papers on work from Sable Island to the Eastern Arctic; but the other sessions were not notably lacking in attendance and interest.

The first morning was given over to presentations by B.R. PELLETIER on "Development of Marine Geology and Geophysics in Eastern Canadian Waters", by W.H. POOLE on "Geology of the Appalachian Region of Canada", and by K.O. EMERY on "The Atlantic Continental Margin of the United States during the Past 70 Million Years", this last offering more results from the extensive research program being carried out by WOODS HOLE OCEANOGRAPHIC INSTITUTION and the U.S. GEOLOGICAL SURVEY.

The facilities of the Sir James Dunn Science Building, DALHOUSIE UNIVERSITY, were used for all subsequent sessions. The Program Committee had had some difficulty in scheduling so many papers in the time available;

several papers on similar topics were found to conflict in time of presentation during the second day, and last-minute alterations only partially solved the problem for those wishing to hear stratigraphic and structural papers. It is a pity that, in so modestly-sized a convention, four simultaneous sessions were found to be necessary, and that these sessions had to be kept short to allow for other events. The other events, however, notably a dinner along the shore at Hubbards for which many lobsters died, were good recompense for the crowded program.

Well organized field trips were arranged before and after the meetings, attracting participants from many parts of the continent as well as from overseas. We trust they were suitably impressed by the geological charms of our fascinating and complex region.

A list of papers of interest that were presented at the meetings was published in the last issue (2-iii 143-5).

Geological Society of America and associated societies: annual meetings,
Hilton Hotel, San Francisco, Calif., November 14 - 16, 1966

As is usually the case with large national conventions, a marathon series of short papers, over 400 in number, were presented to members in as many as eleven simultaneous sessions. Credit must go to the session chairmen who were responsible for the smooth running and timekeeping of the programs, sometimes under difficulties; it was possible, therefore, to plan a schedule to take in papers on different aspects of geology given in different meeting rooms, though this usually required a quick sprint up or down stairs to get there in time. Several sessions, notably those on Marine Geology and Extraterrestrial Processes, were badly overcrowded; the chief crowd generator in the latter seemed to be "Terrain Photography on Gemini Missions" by P.D. LOWMAN, JR. Significant papers were numerous, but two papers among those allotted longer periods for presentation call for mention. "Geomagnetic Reversals: a Practical Tool for Global Stratigraphic Correlation" by ALLAN COX, R.R. DOELL and G.B. DALRYMPLE dealt with the record of Pliocene-Pleistocene reversals of the earth's magnetic field, as shown by the remanent magnetism of radiometrically dated lavas, which was followed by "Proof of Ocean Floor Spreading?" by F.J. VINE, who correlated these geomagnetic epochs to major magnetic anomalies centred on the oceanic rises, revealing that the East Pacific Rise had a separation rate of nearly 9 cm per year.

Numerous other functions were arranged during the three days, including a meeting of the COASTAL RESEARCH GROUP. Field trips were arranged before and after, the San Andreas Fault being the focus of more than one excursion; spectacular coastal exposures of Tertiary and Franciscan rocks were also seen. Foggy and rainy weather during most of the period provided a most un-Californian background, but it was reported that many members were finding interesting exposures in a number of bars in the vicinity of the Hilton.

Papers of interest to the Atlantic area included:

- E.D. SCHNEIDER and B.C. HEEZEN: Processes of abyssal sedimentation in the western North Atlantic
- D.J. STANLEY and D.J.P. SWIFT: Bermuda's broad reef-front platform examined by sub-bottom profiler

- G.H. EISBACHER: Stress field recorded in pebble conglomerates along the Cobequid Fault, Nova Scotia
- B.R. RUST and J.P. COAKLEY: Sedimentation in an Arctic lake
- G.deV. KLEIN: Hydraulic factors controlling the orientation, size and migration of sediment bedforms (sand waves, megaripples and current ripples) and internal cross-stratification in the intertidal zone, Minas Basin, Nova Scotia
- C. KOTEFF: Postglacial tilt in southern New England
- T. SAITO, M. EWING and L.H. BURCKLE: Cretaceous and Tertiary sediments from the Mid-Atlantic Ridge

Given in title were:

- H.W. FAIRBAIRN, M.L. BOTTINO, W.H. PINSON and P.M. HURLEY: Whole-rock age and initial Sr^{87}/Sr^{86} of volcanic rocks underlying fossiliferous Lower Cambrian in the Atlantic Provinces of Canada
- D.J.P. SWIFT, A. COK and A. LYALL: Subaqueous dune fields in the Bay of Fundy.

Eastern Section, Society of Economic Paleontologists and Mineralogists

As was reported in the last issue of this journal (2-iii 151-3), official approval for the formation of a regional organization within S.E.P.M., to serve Eastern United States and Canada, has been given by the S.E.P.M. council.

A meeting of several S.E.P.M. members interested in the formation of the section took place on an informal field trip in the Catskill Mountains in October. At this time the group appointed some officers pro tem to organize the section. A preliminary constitution has been drawn up which has been checked by S.E.P.M. Headquarters. The section will have a business meeting in conjunction with the Northeastern Section of the Geological Society of America at the meetings in Boston, March 1967, at which time the section will be put on a solid footing. The time of the meeting will be announced in the GSA program.

Persons interested in the further progress of the section organization are urged to get in contact with one of the following:

- DR. GERALD M. FRIEDMAN, Rensselaer Polytechnic Institute, Troy, N.Y.;
- DR. GEORGE deVRIES KLEIN, University of Pennsylvania, Philadelphia, Pa.;
- DR. DERYCK J.C. LAMING, University of New Brunswick, Fredericton, N.B.;
- DR. GERARD V. MIDDLETON, McMaster University, Hamilton, Ontario.

G.M. FRIEDMAN