Meetings and Societies

Quaternary Research

The fifth congress of the International Association on Quaternary Research (INQUA) met in Madrid and Barcelona, Spain, 2–15 Sept. Nearly 300 scientists from more than 20 countries, and including geologists, biologists, archaeologists, geographers, and others interested in the most recent epoch of geologic time, were present.

Organized under the auspices of the Government of Spain, the congress met under the presidency of J. M. Albareda, secretary of the Consejo Superior de Investigaciones Cientificas.

During a week of sessions in Madrid and a day in Barcelona, members of the congress heard and discussed many papers dealing with the stratigraphy, chronology, glacial geology, paleoclimatology, geomorphology, ancient soils, shore lines, paleontology, and ancient cultures of the Pleistocene epoch. Several field excursions were held both before and during the Madrid sessions. A six-day excursion through eastern Spain and Mallorca, in which 240 members participated, separated the Madrid sessions from those in Barcelona.

At a final general meeting on 14 Sept. it was decided to accept an invitation from the Polish delegates to hold the sixth INQUA congress in Warsaw in the summer of 1961.

RICHARD FOSTER FLINT
Department of Geology, Yale University, New Haven, Connecticut

Rocket and Satellite Conference

An international conference on rocket and earth-satellite programs for the International Geophysical Year was held in Washington from 30 September to 5 October. This was the first international conference on the IGY to be held in the United States.

The conference was called by the Special Committee for the International Geophysical Year (CSAGI), which asked the National Academy of Sciences to act as host. The conference brought together delegates from the various national committees participating in research rocket and satellite programs. Chairman was L. V. Berkner, president of the International Council of Scientific Unions and CSAGI reporter on rockets and satellites. Hugh Odishaw, executive director of the U.S. National Committee for the International Geophysical Year, was chairman of the General Arrangements Committee.

Official delegates were as follows: Australia, K. E. Bullen; Canada, D. C. Rose, L. F. Smith; Chile, Enrique Ortiz; Cuba, Jesus Francisco de Albear, Luis Larragoiti; Ecuador, Neptali Bonifaz, Carlos Castro, Alfredo Schmitt; France, Lt. Gen. J. Guerin; India, A. P. Mitra; Iran, H. K. Afshar; Japan, Takeo Hatanaka; Peru, Jorge A. Broggi; United Kingdom, Alastair Anthony, W. T. Blackband, J. G. Davies, H. S. W. Massey; United States, W. Berning, G. M. Clemence, Michael Ference, N. C. Gerson, John P. Hagen, J. Hanessian, Joseph Kaplan, Homer E. Newell, Hugh Odishaw, W. J. O'Sullivan, W. H. Pickering, Richard W. Porter, J. G. Reid, Athelstan Spilhaus, W. G. Stroud, J. W. Townsend, Fred L. Whipple, P. H. Wyckoff (in addition, 49 scientists and engineers who are active in the USNC–IGY satellite and rocket programs served as delegates-at-large); U.S.S.R., A. A. Blagonravov, A. M. Kasatkin, Sergei M. Poloskov; CSAGI, Sydney Chapman (president), L. V. Berkner (vice president and reporter for rocket and satellite programs), V. V. Beloussov (member), M. Nicolet (secretary-general), A. Day (coordinator), A. H. Shapley (reporter for World Days and Communications).

The conference opened 30 September with a plenary session, when status reports by the various national delegations were presented. The conference then divided into four working groups: Rocketry; Satellite Vehicles, Launching, and Tracking; Satellite Internal Instrumentation; and CSAGI Manual on Rockets and Satellites. These groups met at various times from 1 through 4 October.

A number of special papers—on satellite vehicles, launching, and tracking; satellite ground-based scientific experiments; orbiting satellite devices and internal instrumentation; IGY rocketry program results; and IGY rocket-research vehicles, techniques, and instrumentation—were presented at special sessions.

The closing session of the conference was held 5 October. There was a brief description, by Blagonravov, of the Soviet satellite, which had been launched 4 October. Conference resolutions were then presented. Detlev W. Bronk, president of the National Academy of Sciences, addressed the delegates, stressing the broad base of international cooperation which underlies the IGY program.

The resolutions, which were adopted unanimously, call for the prompt reporting of rocket-firing data to World Data Centers on special rocket-flight information summary forms developed and agreed on during the conference, within 2 weeks after each firing. The conference further resolved that there be a mutual interchange of rocket instrumentation and equipment and an interchange of personnel among countries participating in the IGY rocket program. The final resolution concerning rockets calls for simultaneous launching of rockets on 18 June 1958, during a World Meteorological Interval.

Resolutions concerning the earth-satellite program emphasized the need for additional visual and optical stations for satellite tracking, especially in higher latitudes, and for additional radio receiving stations providing tracking and telemetry reception at 108, 20, and 40 megacycles per second.

The conference noted the possibility of using the facilities of existing ionospheric stations to receive satellite-telemetered signals as well as the possibility of gaining interesting ionospheric data by means of radio amateur and volunteer observations of the Soviet satellite.

To implement the recommendation that additional telemetry stations be set up by research institutions and amateur radio groups, the conference recommended that both the U.S. and the U.S.S.R. provide advance data about the forms of signals which satellites would transmit and that they also prepare articles about their systems, to be disseminated to amateur radio groups.

The conference recommended that the U.S. and the U.S.S.R. make arrangements for the rapid dissemination of information on satellite orbits and stated that it considered the exchange of publications, technical data, and scientific instruments pertaining to satellites highly desirable.

The need for coordination in content of transmitted positional and orbital data and for consistency of basic constants and standards used in computation was also noted; the conference recommended that interested national committees meet in the near future to discuss these matters.

The final group of resolutions concerned the need for additional coordination on those items that could not be settled at the conference and recom-

mended that special attention be given to the need for continued programs of scientific research utilizing instrumented rockets and earth satellites after the close of the IGY. To this end the conference recommended that countries undertaking such plans make information concerning their plans available as soon as possible.

High Polymers

The International High Polymer Conference will be held at the University of Nottingham, England, 21–24 July 1958. Proceedings will be divided between two sections meeting simultaneously:

Section A (reaction mechanisms and kinetics): heterogeneous polymerization, including trapped or inactive radicals; production of graft and block copolymers.

Section B (physical, thermodynamic, and mechanical properties).

The number of papers for each section is limited to 20, and those who wish to present a paper are invited to submit abstracts of 200 to 300 words in English, French, or German *before 15 December* to the International High Polymer Conference, The University, Manchester, 13, England.

Scientific Study of Religion

The spring meeting of the Society for the Scientific Study of Religion will be held 12 April 1958 at Columbia University. The society requests that scholars wishing to submit brief papers of an empirical nature send three copies of a 300-word abstract to the chairman of the Planning Committee, Lauris Whitman, 297 Fourth Ave., New York, N.Y.

Forthcoming Events

December

1–6. American Soc. of Mechanical Engineers, annual, New York, N.Y. (C. E. Davies, ASME, 29 W. 39 St., New York 18.)

1–15. Bahamas Medical Conf., 4th, Nassau, Bahamas. (B. L. Frank, 1290 Pine Ave., W. Montreal, Que., Canada.)

2–3. American College of Chest Physicians, interim, Philadelphia, Pa. (ACCP, 112 E. Chestnut St., Chicago 11, Ill.)

2–5. American Rocket Soc., annual, New York. (J. J. Harford, ARS, 500 Fifth Ave., New York 36.)

2–5. Entomological Soc. of America, annual, Memphis, Tenn. (R. H. Nelson, ESA, 1530 P St., NW, Washington 5.)

3–4. Human Factors in Systems Engineering, symp., Philadelphia, Pa. (C. Fowler, American Electronic Labs., 121 N. 7 St., Philadelphia.)

3–6. American Medical Assoc., clinical, Philadelphia, Pa. (AMA, 535 N. Dearborn St., Chicago 10, Ill.)

4–8. American Psychoanalytic Assoc., New York, N.Y. (J. N. McVeigh, APA, 36 W. 44 St., New York 36.)

4–10. American Acad. of Optometry, annual, Chicago, Ill. (C. C. Koch, 1506–1508 Foshay Tower, Minneapolis 2, Minn.)

5–7. Texas Acad. of Science, annual, Dallas. (G. C. Parker, Education Dept., Texas A&M College, College Station.)

5–8. American College of Cardiology, 6th interim, Cincinnati, O. (P. Reichert, ACC, Empire State Bldg., New York 1.)

6–7. Oklahoma Acad. of Science, annual, Enid. (J. T. Self, Dept. of Zoology, Univ. of Oklahoma, Norman.)

7–8. American Acad. of Dental Medicine, New York, N.Y. (S. Ross, 136 E. 36th St., New York 16.)

8–11. American Inst. of Chemical Engineers, annual, Chicago, Ill. (F. J. Van Antwerpen, AIChE, 25 W. 45 St., New York 36.)

9–11. Fluorides Symp., Cincinnati, Ohio. (Secretary, Inst. of Industrial Health, Kettering Laboratory, Eden and Bethesda Aves., Cincinnati 19.)

9–13. Eastern Joint Computer Conf., Washington, D.C. (H. H. Goode, Dept. of Electrical Engr., Univ. of Michigan, Ann Arbor.)

9–22. Southeast Asia Soil Science Conf., 1st, Manila, Philippines. (I. G. Valencia, Bureau of Soils, P.O. Box 1848, Manila.)

10–11. Water Quality Control for Subsurface Injection, 2nd annual conf., Norman, Okla. (M. L. Powers, Extension Div., Univ. of Oklahoma, Norman.)

13–14. Association for Research in Nervous and Mental Disease, 37th annual, New York, N.Y. (R. J. Masselink, 700 W. 168 St., New York 32.)

15–18. American Soc. of Agricultural Engineers, Chicago, Ill. (J. L. Butt, ASAE, St. Joseph, Mich.)

16–18. Air Traffic Control Symp., Philadelphia, Pa. (Air Traffic Symp., Franklin Inst. Labs., 20th St. and Parkway, Philadelphia 3.)

17–19. Nuclear Sizes and Density Distributions Conference, Stanford, Calif. (R. Hofstadter, Stanford Univ., Stanford, Calif.)

19–21. American Physical Soc., Stanford, Calif. (W. A. Nierenberg, Univ. of California, Berkeley 4.)

26–27. Northwest Scientific Assoc., annual, Spokane, Wash. (W. B. Merriam, Geography Dept., State College of Washington, Pullman.)

26–30. American Assoc. for the Advancement of Science, annual, Indianapolis, Ind. (R. L. Taylor, AAAS, 1515 Massachusetts Ave., NW, Washington 5.)

The following 43 meetings are being held in conjunction with the AAAS annual meeting.

AAAS Acad. Conference, annual (Father P. H. Yancey, Spring Hill College, Mobile, Ala.). 28 Dec.

AAAS Cooperative Committee on the Teaching of Science and Mathematics (F. B. Dutton, Dept. of Chemistry, Michigan State Univ., East Lansing). 27 Dec.

Alpha Epsilon Delta (M. L. Moore, 7 Brookside Circle, Bronxville, N.Y.). 28 Dec.

American Astronomical Soc. (J. A. Hynek, Smithsonian Astrophysical Observatory, 60 Garden St., Cambridge 38, Mass.). 27–30 Dec.

American Geophysical Union (E. M. Brooks, Dept. of Geophysics, St. Louis Univ., St. Louis 8, Mo.).

American Medical Assoc. Committee on Cosmetics (Mrs. V. L. Conley, AMA, 535 N. Dearborn St., Chicago, Ill.). 28–29 Dec.

American Meteorological Soc. (K. C. Spengler, AMS, 3 Joy St., Boston, Mass.)

American Nature Study Soc., annual (R. L. Weaver, School of Natural Resources, Univ. of Michigan, Ann Arbor). 26–30 Dec.

American Physiological Soc. (F. A. Hitchcock, Dept. of Physiology, Ohio State Univ., Columbus 10).

American Political Science Assoc. (C. S. Hyneman, Dept. of Government, Indiana Univ., Bloomington). 29 Dec.

American Psychiatric Assoc. (M. Greenblatt, Massachusetts Mental Health Center, 74 Fenwood Rd., Boston 15). 29–30 Dec.

American Soc. of Hospital Pharmacists (G. E. Archambault, Pharmacy Branch, U.S. Public Health Service, Washington 25).

American Soc. of Naturalists (B. Wallace, Biological Lab., Cold Spring Harbor, Long Island, N.Y.).

American Statistical Assoc. (V. L. Anderson, Statistical Lab., Purdue Univ., Lafayette, Ind.).

American Sociological Soc. (V. H. Whitney, Brown Univ., Providence, R.I.). 28 Dec.

Association of American Geographers (L. L. Ray, U.S. Geological Survey, Washington 25).

Association for Computing Machinery (J. E. Robertson, Digital Computer Lab., Univ. of Illinois, Urbana).

Astronomical League (W. Garnatz, 2506 South East St., Indianapolis.)

Beta Beta Beta (Mrs. F. G. Brooks, P.O. Box 336, Madison Sq. Station, New York 10). 27 Dec.

Biometric Soc., ENAR (T. A. Bancroft, Dept. of Statistics, Iowa State College, Ames).

Conference on Scientific Editorial Problems, annual (G. L. Seielstad, Applied Physics Lab., Johns Hopkins Univ., Silver Spring, Md.). 26–30 Dec.

Conference on Scientific Manpower, annual (T. J. Mills, National Science Foundation, Washington 25). 30 Dec.

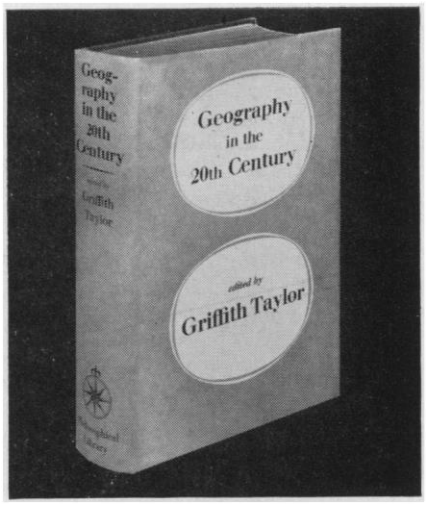
Ecological Soc. of America (A. A. Lindsey, Dept. of Biological Sciences, Purdue Univ., Lafayette, Ind.). 27–29 Dec.

Metric Assoc. (J. T. Johnson, 694 West 11 St., Claremont, Calif.).

National Acad. of Economics and Political Science (D. P. Ray, Hall of Government, George Washington Univ., Washington, D.C.).

National Assoc. of Biology Teachers, annual (Miss I. Hollenbeck, Southern Oregon College of Education, Ashland). 26–31 Dec.

National Assoc. for Research in Science Teaching (G. G. Mallinson, Western



NEW *and completely revised!*

14 Plates — Folding Map
56 Text Illustrations
Over 690 Pages

Twenty-two world famous specialists have participated to make this volume a classic. Editor Taylor has contributed 6 chapters and a glossary.

Partial List of Contents

GEOGRAPHY IN THE NINETEENTH CENTURY
G. Tatham
THE FRENCH SCHOOL OF GEOGRAPHY
R. J. Harrison Church
THE GERMAN SCHOOL OF GEOGRAPHY
S. van Valkenburg
THE WEST SLAV GEOGRAPHERS
J. Kral and J. Kondracki
THE PROGRESS OF GEOMORPHOLOGY
S. W. Wooldridge
GEOGRAPHICAL ASPECTS OF METEOROLOGY
F. K. Hare
SOILS AND THEIR GEOGRAPHICAL SIGNIFICANCE
D. F. Putnam
GEOGRAPHY AND ARCTIC LANDS
A. L. Washburn
GEOGRAPHY AND REGIONALISM
E. W. Gilbert
THE SOCIOLOGICAL ASPECTS OF GEOGRAPHY
J. W. Watson
GEOGRAPHY AND AVIATION
Ellsworth Huntingdon
GEOGRAPHY IN PRACTICE IN THE FEDERAL GOVERNMENT, WASHINGTON
John K. Rose
GEOPOLITICS AND GEOPACIFICS
Griffith Taylor
CARTOGRAPHY
W. W. Williams
THE GEOGRAPHICAL INTERPRETATION ON AIR PHOTOGRAPHY
F. Walker
THE RELATIONS OF GEOGRAPHY AND HISTORY
H. C. Darby

$10

Order today from your favorite Bookseller or

PHILOSOPHICAL LIBRARY
Publishers
15 East 40 Street, Dept. A-47, New York 16, N.Y.
Expedite Shipment by Prepayment

Michigan College, Kalamazoo). 26–30 Dec.

National Assoc. of Science Writers (J. Troan, *Pittsburgh Press,* Pittsburgh, Pa.).

National Council of Teachers of Mathematics (P. Peak, College of Education, Indiana Univ., Bloomington). 27 Dec.

National Geographic Soc. (W. R. Gray, NGS, 16th and M Sts., NW, Washington 6). 29 Dec.

National Science Teachers Assoc. (R. W. Schulz, Emmerich Manual Training High School, 2405 Madison Ave., Indianapolis 25). 26–30 Dec.

National Speleological Soc. (Brother G. Nicholas, LaSalle College, 20th and Olney Aves., Philadelphia 41, Pa.). 28 Dec.

Philosophy of Science Assoc. (C. W. Churchman, Case Inst. of Technology, Cleveland, Ohio).

Scientific Research Soc. of America, annual (D. B. Prentice, 56 Hillhouse Ave., New Haven 11, Conn.). 27 Dec.

Sigma Delta Epsilon, annual (Miss M. Chalmers, Dept. of Chemistry, Purdue Univ., Lafayette, Ind.). 26–30 Dec.

Sigma Pi Sigma (M. W. White, Pennsylvania State Univ., University Park). 27 Dec.

Society for the Advancement of Criminology (D. E. J. MacNamara, New York Inst. of Criminology, 40 E. 40 St., New York 16). 27–28 Dec.

Society for General Systems Research, annual (R. L. Meier, Mental Health Research Inst., Ann Arbor, Mich.).

Society for Industrial Microbiology, Washington Section (W. N. Ezekiel, Bureau of Mines, Washington 25).

Society for Investigative Dermatology (H. Beerman, Univ. of Pennsylvania School of Medicine, Philadelphia 3). 28–29 Dec.

Society of the Sigma Xi, annual (T. T. Holme, 56 Hillhouse Ave., New Haven 11, Conn.). 27 Dec.

Society of Systematic Zoology, annual (R. E. Blackwelder, Box 500, Victor, N.Y.). 26–31 Dec.

United Chapters of Phi Beta Kappa, annual address (C. Billman, 1811 Q St., NW, Washington, D.C.). 27 Dec.

---

27. Association for Symbolic Logic., Cambridge, Hass. (J. Barlaz, Rutgers Univ., New Brunswick, N.J.)

27–28. Linguistic Soc. of America, Chicago, Ill. (A. A. Hill, Box 7790, University Station, Austin 12, Tex.)

27–30. American Finance Assoc., annual, Philadelphia, Pa. (G. E. Hassett, Jr., New York Univ., 90 Trinity Pl., New York 6.)

28–29. American Folklore Soc., annual, Chicago, Ill. (M. Leach, Box 5, Bennett Hall, Univ. of Pennsylvania, Philadelphia 4, Pa.)

28–30. American Anthropological Assoc., annual, Chicago, Ill. (W. S. Godfrey, Jr., Logan Museum, Beloit College, Beloit, Wis.)

28–30. American Economic Assoc., annual, Philadelphia, Pa. (J. W. Bell, Northwestern Univ., Evanston, Ill.)

28–30. Archaeological Inst. of America, annual, Washington, D.C. (C. Boulter, 608, Univ. of Cincinnati Library, Cincinnati 21, Ohio.)

(See issue of 18 October for comprehensive list)

EQUIPMENT NEWS

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Science ***does not assume responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to*** Science, ***Room 740, 11 W. 42 St., New York 36, N.Y. Include the name(s) of the manufacturer(s) and the department number(s).***

■ ELECTROMETER-MEGOHMMETER measures resistance from 5 Mohm to 5×10^9 Mohm in nine decade ranges. The instrument consists of a cathode-follower electrometer with a series of input shunt resistors and a regulated 500-v power supply. Accuracy varies from 3 percent on the lower ranges to 10 percent on the highest. Open-circuit input-voltage drift rate is about 0.02 v/min. (Walter N. Trump, Dept. S684)

■ RELAY, of subminiature size, will provide continuous duty at 200°C and intermittent duty to 250°C. The coil assembly is hermetically isolated from the contact assembly to avoid contamination of contacts. Weight is 0.5 oz. (Reltron Corp., Dept. S687)

■ ULTRASONIC PROCESSING TANKS of 5-gal and 8-gal capacities operate at a frequency of 20 kcy/sec. The tanks operate with 400-w and 700-w generators, respectively. Treatment chambers, made of No. 302 stainless steel, are equipped with input and outlet drains. (General Ultrasonics Co., Dept. S691)

■ VACUUM INDUCTION FURNACE has a capacity of 12 lb of molten steel. Temperatures of 1700°C or higher, depending on crucible material, are produced. Pressure is maintained at 1 μ. Accessories include a special crucible for heat-treating, inert-gas introduction kit, and feed-through for power and water. (National Research Corp., Dept. S698)

■ POWER SUPPLY, regulated by a transistor-magnetic amplifier, furnishes 0 to 60 v at 5 amp. Maximum ripple is 1 mv r.m.s. Line regulation is 5 mv static and less than 5 mv dynamic. Load regulation is less than 25 mv. (Perkin Engineering Corp., Dept. S699)

■ VERTICAL AMPLIFIER for a 10 Mcy/sec oscilloscope has input sensitivity of 5 mv/cm from d-c to 10 Mcy/sec. Drift after ½-hr warm-up is less than 1 cm/hr. Sensitivity is adjustable from 0.005 to 50 v/cm. (Hewlett-Packard Co., Dept. S701)

■ DIRECT-WRITING OSCILLOGRAPH RECORDER provides up to 19 channels of curvilinear recording on a 24.5-in. chart. Either ink or electric writing is available. Pen spac-