News and Notes

The 15th Cold Spring Harbor Symposium on Quantitative Biology: Origin and Evolution of Man

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This year's symposium, held June 9–17 at the Biological Laboratory, Cold Spring Harbor, Long Island, New York, brought together students of fossil man, physical and social anthropology, race, constitution, and human and general genetics. Investigators from Brazil, Denmark, England, Germany, India, Japan, Italy, and Sweden were among those present. Approximately 94 of the participants remained in residence at Cold Spring Harbor for part or all of the conference, and about 35 others registered as nonresident participants.

The program was arranged by the geneticist Th. Dobzhansky, of Columbia University, and the anthropologist S. L. Washburn, of the University of Chicago. M. Demerec, director of the Biological Laboratory, served as chairman.

The first day was devoted to general discussions of "Population as a Unit of Study." It was followed by two days' treatment of the "Origin of the Human Stock" and "Classification of Fossil Men." "Genetic Analysis of Racial Traits," including the frequencies and distribution of inherited diseases, of normal morphological traits, and of the various blood-group systems, was dealt with on the three following days. On the seventh day, "Race Concept and Human Races" was considered; on the eighth day, "Constitution;" and at the final meeting, "Perspectives of Future Research." Each paper was followed by lively discussion, and the proceedings of the day were summarized by the session chairmen.

The conference was witness to the convergence of anthropology and genetics. The meetings were not so much a mutual education as a mutual consideration of problems of common concern. The speed in the spread of knowledge from one field to the other, and the bearing of contemporary studies in basic general genetics on problems in the special field of anthropological genetics, as well as the stimulus from the latter field to thinking in the former, made the symposium a most satisfactory experience.

The publication of the papers, discussions, and summaries will place before a wider circle a very useful outline of the present status of our knowledge of the origin, evolution, and differentiation of man.

Symposium on Copper Metabolism McCollum-Pratt Institute of The Johns Hopkins University

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The second annual symposium sponsored by the McCollum-Pratt Institute of The Johns Hopkins University was held June 15–17 at the institute, in Baltimore, Maryland. Fifty-three chemists from the United States, Australia, and New Zealand participated. Because copper is an essential requirement for plants and animals alike, because it is known to be characteristic of a number of metalloprotein enzymes, because it is demonstrably deficient in certain types of soils, and, finally, because it was among the earliest known trace elements, it was chosen for the subject of the first of these symposia to be devoted to a particular micronutrient element. The 17 papers presented at the symposium ranged over the plant, animal, and soil relationships of copper, and exemplified the chief methods of experimental attack upon the problem of a micronutrient's role in nutrition. In certain studies the effects of a deficiency of the element were investigated; in others, an analysis of enzymes was carried out, first to determine which ones are metalloprotein in nature, and thereafter to determine precisely which of the latter contain the element in question—copper.

The sessions of the first day began with a consideration of those properties of copper which affect its formation of organic complexes (A. H. Corwin), and then turned to the status of studies on the copper-protein enzymes—ascorbic acid oxidase (C. R. Dawson), the tyrosinases of animals (Frank Mallette), and the corresponding phenol oxidases of plants (John M. Nelson). An important new theory, derived from the study of the reaction catalyzed by ascorbic acid oxidase, was described, namely, that the copper in the enzyme, divalent to start with, shuttles reversibly back and forth between the divalent and monovalent states during catalysis, and that exchange of the copper occurs only when the copper in the enzyme is

monovalent. In the last paper of this session, the relations between the browning of foods and the activity of copper-proteins were considered (John B. Thompson).

On the second day of the symposium two papers were presented dealing with the copper metabolism of invertebrate animals. After a general survey of this field (Vincent Dethier), the occurrence, evolution, and properties of hemocyanin were examined in more detail (Alfred C. Redfield). These papers were followed by a series that dealt with copper in nutritional studies of mammals. An introductory account of the use of radioactive copper in nutritional studies (C. L. Comar) was followed by an illustration of its use in analyzing the influence of copper on the metabolism of phosphorus and molybdenum in Florida cattle (George K. Davis). The effects of a copper deficiency in Australian sheep (H. R. Marston) were contrasted with those seen in New Zealand sheep and cattle (I. J. Cunningham). It was particularly interesting that the stringy wool of copper-deficient Australian sheep could be connected with a greatly diminished oxidation of cysteine to cystine in the wool; so that the copper enzymes, like the cytochrome system, may serve as terminal oxidases for the –SH groups, too. This session was well-rounded by a consideration of copper metabolism in human subjects (G. E. Cartwright). Although copper deficiencies are scarcely to be expected in persons on normal diets, yet there are many indications that copper is important in human metabolism.

The sessions of the third day were devoted to copper metabolism in plants and its relation to soils. The chemical nature of the copper complexes formed in peat soils and plants was described (Jeffrey E. Dawson), and followed by significant analyses of the effects of trace elements and phosphate in the nutrition of herbage plants on South Australian soils (H. C. Trumble), and of the distribution of mineral nutrients in forage plants of North Carolina in relation to varying soil conditions and geologic age of the soils (Kenneth C. Beeson). A survey of the copper nutrition of green plants and fungi (Robert A. Steinberg) was followed by a further consideration of the functional aspects of copper in plant metabolism (D. I. Arnon). This final paper brought together much evidence to indicate that the copper enzymes play a role alternative or supplementary to that of the cytochrome system as the terminal oxidases that make the use of molecular oxygen in respiration possible, and also presented new evidence that copper may be the metal (or at least one of the metals) concerned in the light reaction of photosynthesis in green plants.

As a whole, the symposium was stimulating and marked by lively discussion. The close and informal association of the participants for three days helped to make the meeting fruitful. It became clear that such studies as these of enzyme functions in metabolism and their relations to specific micronutrients such as copper, and, in turn, the bearing on both of these of the analyses of soils with respect to multiple trace elements, and the climatic, topographic, geologic, and ecologic relationships of the animals and plants and people living on those soils have tremendous significance for the future. They make possible a new type of environmental control that will permit the development of lands naturally unproductive. In an age when the world's food problem is becoming increasingly acute few enterprises can offer more promise. This copper symposium represents a beginning in the synthesis of knowledge from many fields that is needed to make such an undertaking feasible.

The full proceedings of the symposium, together with the discussions and a more detailed summation, will be published in book form by the Johns Hopkins Press.

About People

Roger Adams, head of the Chemistry Department, University of Illinois, has been elected member of the Board of Overseers of Harvard University. The overseers, elected by the alumni, compose one of two boards that direct Harvard policies.

William A. Altemeier, assistant professor of surgery in the University of Cincinnati College of Medicine, has been appointed a member of the National Research Council. Dr. Altemeier will serve three years on NRC's Division of Medical Sciences as a representative of the American Surgical Association.

Arthur Gerard DeVoe, of the Institute of Ophthalmology, Presbyterian Hospital, New York City, has been appointed professor and chairman of the Department of Ophthalmology at New York University's Postgraduate Medical School, a unit of the New York University-Bellevue Medical Center. Dr. DeVoe will have charge of all ophthalmological teaching, research, and patient care at the medical center, and will direct Bellevue Hospital's eye service.

Stanford Moore, associate member of the Rockefeller Institute for Medical Research, is on leave of absence for a year, to hold the Francqui Chair in the School of Medicine, University of Brussels.

Joseph M. Pisani has been appointed executive director of the Committee on Medical Sciences of the Research and Development Board, to succeed **James E. McCormack,** who will become associate dean of New York University's Postgraduate Medical School, in September. Dr. Pisani, deputy executive director of the committee since September, 1949, will be succeeded in that position by **Thomas B. Spencer,** Rochester, New York, physician.

Recent appointments to the staff of the Los Alamos Scientific Laboratory are: **Richard E. von Holdt,** instructor in mathematics, Northwestern University; **Frank C. Hoyt,** director of the Theoretical Physics Division, Argonne National Laboratory; **Alice H. Armstrong,** professor of physics, Wellesley College; **William C. Dickinson,** Massachusetts Institute of Technology; **Richard L. Henkel,** student at the University of Wisconsin; **John H. McQueen,** instructor in physics, University of Virginia; and **R. E. Peterson,** graduate teaching assistant in physics, University of Wisconsin.

Visitors

Muhiddin Erel, professor of hygiene and director of the Institute of Hygiene, University of Istanbul, Turkey, is working in the Laboratory of Microchemistry, Teaneck, New Jersey, studying recent microchemical procedures as applied to various problems in hygiene and nutrition.

J. Ganguly, Indian biochemist, is a postdoctoral fellow in the Department of Biochemistry, University of Southern California, Los Angeles. Dr. Ganguly, who took his Ph.D. at the University of Reading, England, as a Government of India scholar, will work for a year at USC on the metabolism of carotenoids.

Grants and Awards

The George R. Henderson Medal of the Franklin Institute, Philadelphia, has been awarded to Paul Walter Kiefer, of the New York Central Railroad, for contributions to the railroad equipment field. The medal will be presented on October 18 at the Franklin Institute.

The Atomic Energy Comission has made grants totaling $23,980 to the University of Tennessee School of Biological Sciences, to finance 6 research projects until July 1, 1951. Studies using radioactive calcium to determine the factors influencing the absorption and metabolism of calcium will be carried on under the direction of Edward F. Williams, Jr., associate professor of chemistry. A study of the mechanics of influenza virus infections, using radioactive sulfur, will be directed by John L. Wood, associate professor of chemistry, and Douglas Sprunt, chief of the Division of Pathology and Bacteriology. Lester Van Middlesworth, instructor in physiology, will investigate the effect of anoxia on the thyroid gland and study the processes taking place in damaged tissues undergoing repair. Study of the mechanisms responsible for changes in cell membrane permeability and disturbances in ionic balance will be under the direction of R. R. Overman, associate professor of physiology. The effects of radioactive iodine on cancer and other diseases of the thyroid will be studied by Dr. Sprunt, Carl E. Nurnberger, assistant professor of radiology, and Alys N. Lipscomb, instructor in medicine. Research in the use of radioactive ruthenium in treatment of superficial lesions will be undertaken by David Carroll, instructor in radiology, Joseph Cara, resident in radiology, and Dr. Sprunt.

The Alvarenga Prize for 1950 has been awarded to Ephraim Shorr, associate professor of medicine, Cornell University Medical College, for his work in shock, which has provided a clearer understanding of the mechanism of this condition. The prize was established by the will of Pedro Francesco DaCosta Alvarenga, of Lisbon, Portugal, an associate fellow of the College of Physicians of Philadelphia, and is awarded annually by the college.

Fellowships

The Garnsey Research Fellowship was recently established at the School of Tropical and Preventive Medicine, Loma Linda, California. The fellowship provides a stipend for a student working toward his M.S. or Ph.D. in medical zoology.

Four teaching fellowships in chemistry, biology, physics, and psychology are available at Brandeis University, Waltham, Massachusetts. Recipients of the fellowships, designated as the **Sara N. Stonehill Memorial Teaching Fellowships,** will be selected on the basis of a national competition. They will teach on a part-time basis at the university and also continue with their graduate studies in the Boston area.

The American Association of University Women announces that 19 national fellowships, open to American women for study in the U. S. or abroad, and 8 international fellowships for women in other countries, are available for 1951–52. In general, the fellowships will be awarded to candidates who have completed two years of residence work for the doctor's degree, or who have already received the degree, but the project on which the candidate wishes to work, its significance, and evidence of ability to pursue the study will be the most important criteria. Detailed information concerning the fellowships may be obtained from the Secretary, Committee on Fellowship Awards, AAUW, 1634 Eye Street, N.W., Washington, D. C. Applications must be filed by *December 15.*

Colleges and Universities

Rutgers University's Bureau of Engineering Research has been conducting studies of the irregularities of atomic arrangement in solids, under the direction of Alfred J. Reis, research specialist in the bureau. The work, sponsored by the Office of Naval Research, involves use of a double x-ray spectrometer developed at the university, which can produce very accurate and complete pictures of the irregularities of atomic structure. This research will help to determine the maximum strength of industrial materials and whether present products can be improved.

The University of Texas' Department of Aeronautical Engineering has established a new degree program, leading to the bachelor of science degree in meteorology, to start in September. A brochure outlining the new curriculum in detail and including course descriptions and other information can be obtained by writing Kenneth H. Jehn, Assistant Professor of Meteorology, Engineering Building 133, University of Texas, Austin 12.

The University of Chicago's Oriental Institute will soon send an expedition to northeastern Iraq, for further study of the site of Jarmo, a village that the "atomic calendar" developed by W. F. Libby, professor of chemistry of the university's Institute for Nuclear Studies, indicates may be 7,000 years old. Discovered by accident in 1946, it was very briefly studied three years ago. Preliminary diggings revealed evidence of the use of cultivated grains and utensils for grinding them. Flint tools were also found, as well as bone fragments of farm animals that were either domesticated or in the process of becoming so. Under the direction of Robert J. Braidwood, associate professor

of Old World prehistory and anthropology, the expedition will remain at the site from September 1, 1950, to May 15, 1951. Mrs. Braidwood, who is also a member of the institute staff, will accompany the expedition.

Meetings

More than 1,000 mathematicians are expected to attend the first **International Congress of Mathematicians** to be held since 1936. It will meet at Harvard University, August 30–September 6, under the sponsorship of the American Mathematical Society. The program will include four conferences and a number of invited addresses. Conferences will be held on algebra, topology, analysis, and applied mathematics, at which groups of specialists will present surveys of their respective fields. Ten-minute talks by any members of the congress who wish to discuss their own work will also be given. The invited addresses will be 60-minute talks by distinguished mathematicians on their own discoveries. Field Medal awards will be made, two to go to young mathematicians for outstanding work. The first Field awards were made at the Oslo Conference in 1936.

The first official international mathematics congress was held in Zurich in 1897, although a preliminary gathering was held at Northwestern University in 1893. The second was held in Paris in 1900, and after that a congress was held every four years (1916 excepted) until 1940, when the meeting was postponed because of the war .

The International Union Against Tuberculosis will hold its 11th World Congress, September 3–6, in Copenhagen. The 10th congress was held in 1937, although the Council and the Executive Committee have both held annual meetings during the past three years. K. A. Jensen, of the University of Copenhagen's Institute of General Pathology, will preside over the congress, and speakers from 19 countries will take part in the scientific sessions. The National Tuberculosis Association and its medical section, the American Trudeau Society, will be represented by Esmond Long, director of research and therapy for the society, and Kirby S. Howlett, Jr., past president of the ATS. Their respective subjects will be sensitivity and resistance of the tubercle bacillus to chemotherapeutic agents, and collapse therapy. Several other U. S. physicians will take part in the panel discussion on tuberculosis control measures on the closing day of the meeting.

The American Society of Mechanical Engineers will hold its fall meeting at Hotel Sheraton, Worcester, Massachusetts, September 19–21. Some 50 papers will be read at 24 technical sessions on heat transfer, management, rubber and plastics, textiles, power, machine design, safety, gas turbine power, fuels, hydraulics, materials handling, production engineering, metals engineering, and wood industries. Speakers will include James R. Killian, Jr., president of Massachusetts Institute of Technology; Nathan Tufts, vice president of the New England Box Company; Luigi Broglio, professor of structures at the Graduate College of Rome and visiting professor at Purdue University, whose subject will be "The Method of Equivalence Applied to Engineering and to Mathematical Physics"; Ludwig F. Musil, professor at the Technischen Kochschule and technical manager of Steirische Wasserkraft und Elektrizitäts, at Graz, Austria, who will speak on the trend of power plant practice in Germany.

An eight-week course in neuroanatomy, sponsored by the New Jersey Physical Therapy Association, will begin September 27 at the Kessler Institute for Rehabilitation. The course will be given by Charles Noback, of the Neurological Division, College of Physicians and Surgeons, Columbia University. The lectures will be held on Wednesday evenings from 8:00 P.M. to 10:00 P.M. and are open to physicians and to physical, speech, and occupational therapists. Registration fee for the entire course is $15; single lectures are $2. Further information may be obtained from Miss Genevieve Reilly, Chief Physical Therapist, Kessler Institute, West Orange, New Jersey.

Miscellaneous

A nine-man board of judges to choose the two winners of the $2,000 fifth annual **AAAS-George Westinghouse Science Writing Awards** has been announced. Awards of $1,000 each will go to the writer of what the judges consider the best news story and the best magazine article on science published during the 1950 contest year in a newspaper and in a general-circulation, nontechnical magazine. Both awards will be presented December 28 during the Annual Meeting of the AAAS in Cleveland, Ohio.

The judges of the science writing competition, chosen to represent the general public, science, newspapers, and magazines, are: Morris Meister, principal of the Bronx (New York) High School of Science and past president, National Science Teachers Association; Henry R. Aldrich, secretary, Geological Society of America; Detlev Bronk, president of The Johns Hopkins University, chairman of the National Research Council, and president of the National Academy of Sciences; Norman Cousins, editor, *Saturday Review of Literature*; John R. Dunning, dean of the Faculty of Engineering of Columbia University; Rudolph Flesch, readability consultant; Charles C. Hemenway, editor, the Hartford (Connecticut) *Times*; Hillier Krieghbaum, professor in the New York University School of Journalism; and Howard A. Meyerhoff. Dr. Meister is chairman of the board of judges.

Seventeen newspaper science writers have been honored in the past in the competition, and are no longer eligible for the $1,000 newspaper award. They are: Howard W. Blakeslee, Associated Press; Watson Davis, Science Service; David Dietz, Scripps-Howard newspapers; Thomas R. Henry, Washington *Star* and North American Newspaper Alliance; Waldemar Kaempffert, New York *Times*; Gobind Behari Lal, *American Weekly*; William L. Lawrence, New York *Times*; Herbert B. Nichols, *Christian Science Monitor* and the U. S. Geological Survey; John J. O'Neill, New York *Herald Tribune*; Robert D. Potter, writer and consultant; Jane Stafford, the

late Frank Thone, and Majorie Van de Water, all of Science Service; James G. Chesnutt, San Francisco *Call-Bulletin*; George Keaney, New York *World-Telegram*; Frank Carey, Associated Press; and Lester Grant, New York *Herald Tribune*.

Past winners of the magazine award, and not eligible to compete again in that division are: Steven M. Spencer, *Saturday Evening Post*; Florence Moog, St. Louis writer and scientist; and George W. Gray, freelance writer of Sparkill, New York.

The awards were established in 1946, the centennial year of the birth of George Westinghouse, to stimulate the interest of the general public in the role of science in the world today, and to encourage young writers to enter careers in science writing. The awards, administered by the AAAS, are made possible by a grant from the Westinghouse Educational Foundation.

In accordance with a formal agreement concluded between **Unesco** and the International Council of Scientific Unions in December, 1946, the Council and the International Scientific Unions it federates began to receive grants-in-aid from Unesco in 1947. At the end of 1949 they had received grants-in-aid for exactly 3 years, and a report on the results obtained has been presented to the Executive Board for critical examination and review.

In April, 1947, the board approved the allocation of $235,977 for grants-in-aid to the International Council of Scientific Unions (ICSU), its federated unions, and their international scientific organizations. Subsequently, the director-general authorized a further grant of $4,171, and in December, 1947, the board authorized supplementary grants-in-aid amounting to $15,962, totaling $256,130 in the field of natural sciences in 1947. The total for 1948 was $238,374; for 1949, $256,426.

Distribution of the allocated grants-in-aid, according to the different groups of sciences, for 1949, is as follows: General sciences (including the history of science), 24.5%; physicochemical sciences, 37.4%; astronomy and earth sciences, 18.2%; and biological sciences, 19.9%.

The results achieved by the grants-in-aid are really much more far-reaching than the dry figures listed indicate. They have hastened the resumption of international cooperation in the field of natural sciences after the war. Even now, scientists in most countries find it exceedingly difficult to obtain foreign exchange for traveling expenses, either to attend international meetings or to work for a short period in other countries. Some international services were without adequate funds; some international laboratories and stockrooms were in need of essential equipment. Unesco's grants-in-aid to the international nongovernmental organizations for 1947 arrived in time to meet these urgent needs and facilitate the revival of international cooperation in the natural sciences.

Not only Unesco, but also working scientists throughout the world, believe that the subventions granted to international symposia and to publications will go a long way in the promotion of international understanding and in the advancement of scientific knowledge.

Organizations receiving grants-in-aid in 1949 were:

- International Council of Scientific Unions
- International Union of Pure and Applied Physics
- International Astronomical Union
- International Union of Scientific Radio
- International Union of Crystallography
- International Union of Theoretical and Applied Mechanics
- International Union of Chemistry
- International Geographical Union
- International Union of Geodesy and Geophysics
- International Union of Biological Sciences
- International Zoological Station at Naples
- International Association of Microbiologists
- International Union of the History of Science
- International High Altitude Station at Jungfraujoch

Synthetic mica has been produced in substantial quantities at the Colorado School of Mines as the result of a 4-year research project, under grant from the U. S. Signal Corps. Cakes of mica, weighing up to 500 pounds, have been formed by a new "cool hearth" method that eliminates the use of crucibles. Crystallization takes place in a basin of unmelted raw mixture of pure potassium silicofluoride, silica, alumina, and magnesia. This material, forming the hearth of the furnace, moves about 1 inch per hour under the heat of a natural gas flame. Melting occurs on the leading edge, crystallization on the trailing end, of the molten pool. The development of the traveling hearth and the elimination of the use of crucibles are considered the School of Mines' most important contributions to the project. William C. Aitkenhead, former assistant professor of metallurgy at the Colorado School of Mines, and recently named director of the Mining Research Laboratory at Washington State College, Pullman, has directed the project for the past year.

Medical and radiology authorities representing the U. S. atomic energy project are visiting the British Atomic Energy Establishment at Harwell, England, this month. They are: Shields Warren, director, Division of Biology and Medicine, AEC, Washington, D. C.; Robley D. Evans, professor of physics, Massachusetts Institute of Technology; Gioachinni Failla, Department of Radiology, Columbia University; Jacob Furth, chief, Pathology Section, Biology Division, Oak Ridge National Laboratory; Joseph G. Hamilton, co-director, Medical, Physics, and Biology Divisions, Radiation Laboratory, Berkeley, California; Alexander Hollaender, director, Biology Division, Oak Ridge; Leonidas D. Marinelli, Radiological Physics, Argonne National Laboratory; Leslie F. Nims, chairman, Biology Department, Brookhaven National Laboratory; Robert S. Stone, Medical School, University of California, San Francisco; Lauriston S. Taylor, chief, X-Ray Section, National Bureau of Standards; Paul C. Aebersold, chief, Isotopes Division, AEC, Oak Ridge Operations Office; and Logan Emlet, superintendent, Operations Division, Oak Ridge.

Drs. Warren, Failla, Taylor, Ham-

ilton, and Evans will continue discussions held last September with British and Canadian representatives, on standards of radiation tolerances, at the Canadian Atomic Energy Establishment, Chalk River, Ontario.

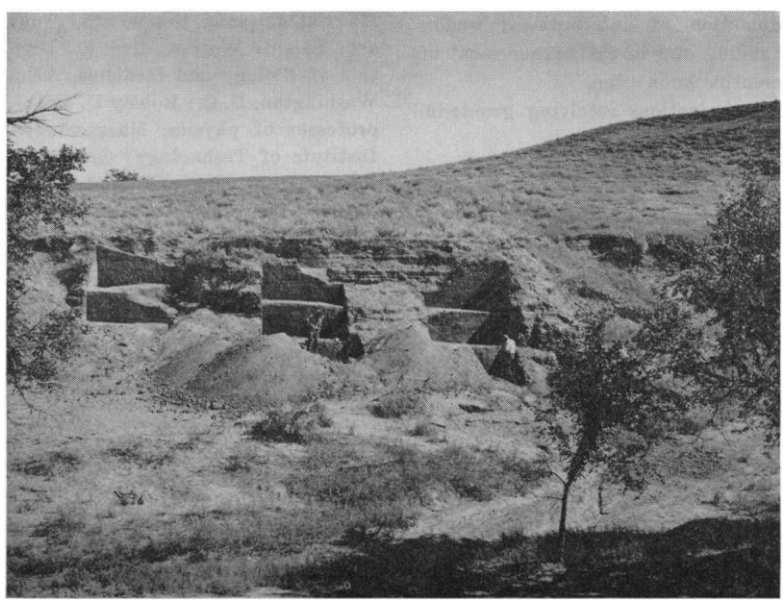
Radiation-absorbing glasses that protect the eyes against atomic rays have been developed by University of Pittsburgh chemists through research directed by Alexander Silverman, head of the university's Department of Chemistry.

One glass is a high-energy x-ray or gamma-ray absorbing glass containing tungsten phosphate. Its radiation-absorbing power is 50% greater than that of previously existing x-ray shielding glass. It was developed by Joseph J. Rothermel and Kuan Han Sun. The other glass is a slow-neutron absorbing glass containing cadmium borosilicates with fluorides. Work on this glass was done by Label Melnick, Hurd W. Safford, and Kuan Han Sun.

The new glasses are of immediate importance to workers in atomic energy, atomic bomb, and hydrogen bomb plants to prevent radiation cataracts, from which some workers have already suffered (P. H. Abelson and P. G. Kruger, *Science*, 1949, **110**, 655) and should prove useful for heavy transparent laminated peepholes in the safety barriers in atomic energy plants. Goggles containing laminated lenses for both x-ray and neutron absorption are a possibility for civilian protection in atomic or hydrogen bomb warfare.

Improved methods of blood separation will be sought in a program administered by the American Red Cross under a contract with the Atomic Energy Commission. The primary interest of the AEC in blood-fractionation studies is the development of means for separation and preservation of white blood cells and platelets, which are of particular value in combating acute radiation effects. The Red Cross hopes to develop new and quicker methods for obtaining and preserving plasma and red blood cells, so that stockpiles of blood constituents will be available in the event of atomic disaster. None of the AEC funds will be used to finance the Red Cross National Blood Program, nor does the contract provide for establishing blood banks.

The Bureau of Mines, U. S. Department of Interior, has published ***Review of Literature on Health Hazards of Beryllium and its Compounds*** (Information Circular 7473), by G. G. Morgis, research assistant in the bureau's Health Branch, and J. J. Forbes, chief of the Health and Safety Division. The circular reviews industrial health hazards resulting from the handling of beryllium and its compounds and discusses ways of controlling them. Free copies may be obtained by writing the Publications Distribution Section, Bureau of Mines, 4800 Forbes Street, Pittsburgh 13.



Scientists of the Smithsonian Institution, National Park Service, and the Bureau of Reclamation at work at the Angostura Reservoir, near Hot Springs, South Dakota. One of the most significant yet found in the survey of areas soon to be flooded by reservoirs, the site is so deeply buried that it has been necessary to use bulldozers. Stone javelin heads have been found that are similar to, although not identical with, Yuma points, which immediately succeeded the Folsom point, one of the earliest known implements made by man in the New World. Part of the same project are other excavations going on at the Garrison Reservoir and at the site of the first Fort Randall, both in the Dakotas.

Make Plans for—

Illuminating Engineering Society, national technical conference, August 21–24, Pasadena, California.

American Veterinary Medical Association, annual meeting, August 21–24, New Municipal Auditorium, Miami Beach, Florida.

American Crystallographic Association, summer meeting, August 21–25, New Hampton School, New Hampton, New Hampshire.

National Shade Tree Conference, annual meeting, August 21–25, Hotel Syracuse, Syracuse, New York.

International Northwestern Conference on Diseases of Nature Communicable to Man, August 23–25, University of Washington, Seattle.

Plant Science Seminar, 27th annual meeting, August 24–30, Massachusetts College of Pharmacy, Boston.

American Congress of Physical Medicine, annual meeting, August 28–September 1, Hotel Statler, Boston.

Third Conference on Reaction Mechanisms in Organic Chemistry, August 29–September 2, Northwestern University, Evanston, Illinois.

Econometric Society, August 30–September 6, Harvard University.

Tissue Culture Association, meeting August 31–September 2, Cooperstown, New York.