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# Science 84 Celebrates Fifth Anniversary

Science 84 celebrates its fifth anniversary this month by publishing a special anniversary issue devoted to "20 Discoveries That Changed Our Lives."

The issue is an especially important one for *Science 84*. It symbolizes not only the milestone of the fifth anniversary but also the completion of a monumental task: to identify 20 of the most important discoveries of the 20th century.

"The ground rules were simple," said editor Allen L. Hammond. "The discovery had to have been made in the 20th century, and it must have had a significant impact on the way we live or the way we think about ourselves and our world. That ruled out some—too early, like radio, or too removed from everyday experience, like the discovery of the nucleus," he added.

The magazine still had dozens of candidates to choose from, however. "The choices were not always easy, or obvious," observed Hammond. "Which was really more important, vitamins or blood groups? Vitamins led to healthier lives, certainly, but the discovery of blood groups and all that followed actually saved lives," he explained.

After selecting 20 discoveries, the magazine lined up scientists in each field to explain the discoveries and examine how they have changed the way people live. Lewis Thomas, Carl Djerassi, Alan Lightman, Allan Sandage, and Nobel laureates David Baltimore, Charles H. Townes, and John Bardeen are among the many prominent contributors to the issue.

The authors look behind many familiar achievements to discover the often lesser known scientific and technological innovations that were the key to making them possible. For example, although most people have heard of the Wright brothers, how many know that an equally fundamental development for aviation science was the discovery of the boundary layer—a discovery made by a German scientist working on building a better vacuum cleaner? Likewise, the discovery of antibiotics revolutionized the field of medicine, yet few people are aware of the pioneering experiment which first proved that it was possible to kill infectious bacteria without killing the patient.

The 18 other discoveries or inventions covered in the issue are plastics, the IQ test, Einstein's contribution to theoretical physics, blood typing, the chi-square test and the birth of modern statistics, the vacuum tube, the breeding of hybrid corn, the discovery of the Taung child, fission, modern cosmology, the structure of DNA, DDT, television, the contraceptive pill, psychoactive drugs, the transistor, the computer, and the laser.

The Fifth Anniversary Issue is also the largest issue of the magazine to date. According to managing publisher Tod Herbers, the issue contains a record 115 editorial pages and 35 percent more advertising pages than any other issue of the magazine ever published.

The AAAS launched *Science 84* (then *Science 80*) in the fall of 1979 as a general science magazine designed for an educated lay audience. In 5 years circulation for the magazine has grown to 700,000 and publication has increased from six to ten times yearly. While other general science magazines have cut their circulation base and changed their format, Herbers says "we are a serious science magazine and do not intend to water down the editorial content of the magazine to attract more subscribers."

According to Herbers, "The fact that the Association acted quickly to put *Science 80* on the market before the other general science magazines has enabled us to attract the level of reader that we now have, and the quality of the publication has enabled us to keep those readers. Although we are up against the Hearst Corporation's *Science Digest* and Time, Inc.'s *Discover*, this has given us an edge."

The Anniversary Issue is the latest in a number of special projects *Science 84* has undertaken over the past 4 years to bring science out of a lab setting and make it part of the reader's everyday experience. Among the projects initiated by the magazine were the first modern reconstruction of 46,000 year-old Neandertal (October 1981); the first accurate strobe-light photographs of the pitch of a "curve" ball (October 1982); and a special phone line which offered readers the opportunity to test their ability to tell the difference between a human voice and a computer-synthesized one (June 1983).

More recently, *Science 84* staff traveled to Africa and Europe to bring back some evocative portraits of our past. The cover story of the April 1984 issue featured photographs of the fossils that make up much of the physical evidence to support the evolution of the human species.

The cover story of the October issue of *Science 84* explored why cooperation exists in a world that often seems to be governed by the rule, "nice guys finish last." In conjunction with the cover story, *Science 84* conducted an unusual experiment on cooperation. Each reader was given the opportunity to take part in the experiment by marking a postcard bound within the magazine and returning it, and more than 20,000 readers have chosen to participate. The results of the experiment will be published in the January/February 1985 issue of the magazine.

Science 84 also has served as the basis for a number of books designed to increase the public's understanding of science. Newton at the Bat, a collection of sports columns from Science 84, was published earlier this year by AAAS in cooperation with Charles Scribner's Sons. The AAAS and Scribner's also are publishing Twenty Lives in Science/A Passion to Know, a collection of profiles of 20 scientists which have appeared in Science 84 during the past 5 years. A third book, a collection of science poetry from both poets and scientists, will be published by Birkhaüser-Boston, Inc., later this fall.

Articles from the magazine continue to be a major source of information and topics for the AAAS radio program "Report on Science," narrated by editor Hammond. Begun in 1981, the daily 90second radio science news feature program is being produced for the CBS Radio Stations News Service. It is currently being aired in major media markets in the U.S. and on other stations throughout the country. CBS also is airing a special 20-part series on the subject of the Anniversary Issue, "20 Discoveries That Changed Our Lives."

During the past 4 years, *Science 84* has won numerous awards for the quality of its writing and art work. It has repeatedly won the most prestigious awards in the magazine industry. In 1982 and again in 1983, the magazine won the National Magazine Award for General Excellence of the Magazine Publishers Association. This was the first time that any magazine had ever won the General Excellence Award for two consecutive years.

"We are pleased to have survived and even thrived—for the past 5 years" said Hammond, "and we look at the special Fifth Anniversary Issue as a sign of what is to come: more in-depth presentation of the way scientific and technological innovation affects our lives, more coverage of the cutting edge of science and technology."

JEFFREY L. TERAMANI Office of Communications

## Report on Talent Pool for Science and Engineering Published

The 1984 annual joint meeting of the Scientific Manpower Commission and the Engineering Manpower Commission took a broad look at the need for training future scientists and engineers and at the outlook for meeting those needs.

The 15 May meeting brought together leaders from government, industry, academe, and the scientific and engineering societies to discuss the talent pool for science and engineering—its components, quality, and access. The proceedings of that meeting, "The Science and Engineering Talent Pool," have just been released.

Calling attention to the importance of the issues, Bill G. Aldrich, vice president of the Scientific Manpower Commission and executive director of the National Science Teachers Association, said, "Not for years has such a collection of data been brought together on the pipeline issue. The 18- to 24-year-old population will drop from 29.4 million in 1981 to below 26 million in 1988, and this drop coincides with a period of increasing demand for well educated specialists."

Other speakers included Charles Falk from the National Science Foundation who presented selected information from the data on scientists and engineers that is collected by the Foundation and Sue Berryman of the Rand Corporation, author of "Who Will Do Science?," who 2 NOVEMBER 1984 provided information on the participation of women and minorities in science and engineering.

Scientific Manpower Commission director Betty Vetter traced the talent pool from seventh grade through Ph.D., while Beverly Porter of the American Institute of Physics examined the outlook for physicists and Anthony Carnevale, a consulting economist, outlined the needs for and methods of providing continuing education for scientists and engineers. Alan Fechter of the National Research Council discussed the importance of alternate sources of supply other than the addition of new graduates.

Copies of "The Science and Engineering Talent Pool," proceedings of the joint meeting, are available for \$10 prepaid from the Scientific Manpower Commission, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036.

# New York Science Seminar Series for Teachers Begins This Month

The Science Seminar for Teachers is a new series designed to give secondary school science teachers the opportunity to meet with leading scientists and mathematicians and to learn more about such topics as stress and health, the importance of chaos, genetic engineering, interactive computer graphics and the fourth dimension, and stellar evolution.

The Science Seminar for Teachers is being offered only to secondary school science teachers in New York City. The seminars are sponsored by the AAAS in conjunction with the New York Academy of Sciences. Eight seminars, based on popular symposia from the 1984 AAAS Annual Meeting, are scheduled during October, November, and December.

For further information, contact the Office of Science and Technology Education at 1776 Massachusetts Avenue, NW, Washington, D.C. 20036, or call 202-467-4993.

### AAAS Travelers

AAAS has been invited to send a representative to the 34th annual convention of the Venezuelan Association for the Advancement of Science (Aso-VAC) to be held in Cumana (Sucre State) 19 to 24 November 1984. The convention, comprised of symposia, lectures, workshops, and assemblies of disciplinary societies, will present some 1700 papers, including poster sessions. In collaborations with the University of Oriente, the meeting also will sponsor social and cultural events.

AAAS members who plan to be in the area at that time or who know of colleagues on sabbatical in the region who might be able to attend should telephone James W. Rowe, AAAS Office of International Science at 202-467-5230. No travel funds are available; however, partial support (per diem only) will be provided. Knowledge of Spanish is desirable.

#### Obituaries

Michael Alberti of Hyltebruck, Sweden, member since 1983, 12 July 1984.

**Errett Cyril Albritton** of Pleasant Hill, California, member of Section G since 1934, 2 May 1984.

**K. Baburao** of the Northwest Institute for Medical Research, member of Section C since 1961, 5 May 1984.

**Anna D. Bergner** of Baltimore, Maryland, member of Section F since 1928, 30 July 1984.

Stephen R. Boyle of Santa Barbara, California, member since 1973, 25 June 1984.

**Coleman Citret** of San Francisco, California, member of Section N since 1980, 16 June 1984.

Truman B. Clark, Research Center, U.S. Department of Agriculture, member since 1982, 18 August 1984.

Julius H. Comroe, Jr., director emeritus, Cardiovascular Research Institute, University of California, San Francisco, member of Section N since 1948, 31 July 1984.

Hilary J. Deason, retired staff member of the AAAS, editor of *Science Books Quarterly*, member of Section L since 1930, 25 August 1984.

Elaine G. Diacumakos, head, Rockefeller University Laboratory of Cytobiology, member of Section G since 1960, 11 June 1984.

Edwin G. Ebbighausen of Eugene, Oregon, member of Section D since 1957, 17 July 1984.

Anna Fisher of Alva, Oklahoma, member of Section G since 1927, 11 May 1984.

**Edmund F. Foley** of Crystal Lake, Illinois, member of Section N since 1971, 4 May 1984.

Joseph Lee Fowler of Oak Ridge, Ten-(Continued on page 570)