

The Weekly Newsmagazine of Science

SCIENCE NEWS

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**The First Visit
to a Comet**

science and mathematics teachers



encourage your students to enter the



WESTINGHOUSE SCIENCE TALENT SEARCH

PHYSICS
CHEMISTRY
BIOLOGY
MATHEMATICS
ASTRONOMY
GEOLOGY
HUMAN ENGINEERING
PSYCHOLOGY
ANTHROPOLOGY
METEOROLOGY
ZOOLOGY
SOCIOLOGY
ARCHITECTURE
BIOCHEMISTRY
GEOMETRY
SOCIAL PSYCHOLOGY
ELECTRICAL ENGINEERING
MOLECULAR BIOLOGY
ECOLOGY
PERCEPTION
CALCULUS
ARCHAEOLOGY
CIVIL ENGINEERING
SOCIAL ANTHROPOLOGY
MOLECULAR GENETICS
GEOCHEMISTRY
SOLID STATE PHYSICS
OPTICS
TRANSPORTATION
LIMNOLOGY
EDUCATIONAL PSYCHOLOGY
ABSTRACT ALGEBRA
CELLULAR BIOLOGY
BOTANY
THERMODYNAMICS
AERONAUTICAL ENGINEERING
BACTERIOLOGY
ECONOMICS
OCEANOGRAPHY
ENVIRONMENTAL SCIENCE
PLANT PHYSIOLOGY

- **40 Winners will share \$140,000 in Westinghouse Science Scholarships and Awards, each to receive one of the following:**

One \$20,000 (\$5,000 per year for 4 years)
Two \$15,000 (\$3,750 per year for 4 years)
Three \$10,000 (\$2,500 per year for 4 years)
Four \$7,500 (\$1,875 per year for 4 years)
Thirty Awards of \$1,000

- **300 Honorable Mentions will be brought to the attention of every college, university and technical school in the U.S.A.**

- **Hundreds of students will receive honors within states holding State Science Talent Searches.**

ABOUT THE SCIENCE TALENT SEARCH

More than 13,000 students have been members of the Winners and Honors Groups in the past 44 years. Because of their standing in this oldest and most prestigious competition of its kind, they have been offered scholarships from institutions seeking quality students with proven ability in science and engineering. Many winners in the Science Talent Search are offered summer employment in scientific laboratories and other tokens of early acceptance into the world of science and engineering. Such benefits also come frequently to members of the Honors Group and to those who place in State Science Talent Searches.

ANSWERING YOUR QUESTIONS

Who May Compete? Any boy or girl who is in the last year of secondary school (public, private, parochial) who is expected by the certifying school official to complete college entrance qualifications before October 1, 1986 and who has not competed in any previous Science Talent Search is eligible to enter this competition.

How Can Students Compete? Teachers or other school officials must request entry materials for the outstanding science and mathematics students of the school.

What Is A Completed Entry? A project report of about 1,000 words which presents evidence of research ability in science or engineering; a Personal Data Blank filled in by student, teachers and principal; standardized test scores and high school transcript.

How Are Entries Judged? Judging is based primarily on the student's report on an independent research project in the physical sciences, behavioral and social sciences, engineering, mathematics, or biological sciences (excluding live vertebrate experimentation).

What Is The Deadline? Entries must be received at Science Service no later than **Midnight, December 15, 1985**

Get your students to start working on projects NOW

RURAL SOCIOLOGY
PARASITOLOGY
PALEONTOLOGY
MINERALOGY
COMPUTERS
SOIL MECHANICS
POLITICAL SCIENCE
CULTURAL ANTHROPOLOGY
MATHEMATICAL BIOLOGY
ASTROPHYSICS
GENETICS
GEOPHYSICS
NUMBER THEORY
MECHANICAL ENGINEERING
BIOMEDICAL ELECTRONICS
AERODYNAMICS
URBAN SOCIOLOGY
PROTOZOOLOGY
ETHOLOGY
TOPOLOGY
QUANTUM MECHANICS
METALLURGY
INDUSTRIAL PSYCHOLOGY
STATISTICS
MICROBIOLOGY
LOGIC
BIOMETRY
CELLULAR CHEMISTRY
CELL PHYSIOLOGY
BIOPHYSICAL CHEMISTRY
BIOENERGETICS
INVERTEBRATE NEUROPHYSIOLOGY
CHEMICAL ENGINEERING
SYSTEMATIC BIOLOGY
COMPLEX ANALYSIS
PETROLOGY
BIOCHEMICAL ENGINEERING
FLUID MECHANICS
ELECTRONICS
PROBABILITY
NUCLEAR ENERGY

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Cover: The International Cometary Explorer (ICE) spacecraft, originally launched just to study the solar wind, is about to become the first man-made object ever to visit a comet, flying through the tail of Comet Giacobini-Zinner on Sept. 11. (Illustration: NASA)



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'Distinguished Contribution' Award to SN Editor

We are proud to report that SCIENCE NEWS Editor Joel Greenberg has been awarded the 1985 National Psychology Award for Excellence in the Media for "sustained and distinguished contribution made by an individual in communicating psychology to the general public." The award, presented by the American Psychological Association (APA) and the American Psychological Foundation, has been given only three other times since it was established in 1978.

Greenberg, who came to SCIENCE NEWS in 1977 as behavioral sciences editor and became editor in 1981, was cited for his contributions at SCIENCE NEWS as well as his previous work at The Miami Herald and The New York Times. In 1977 he won the APA's National Media Award for Newspaper Reporting for his piece on behavior modification in The Miami Herald. In 1980-81, he was one of 12 journalists selected for the National Endowment for the Humanities fellowship at Stanford University; during his nine-month leave from SCIENCE NEWS, his studies at Stanford focused on the ethical context of brain and behavioral research.

Greenberg received this year's award, which carries a \$1,000 prize, on Aug. 22 in Los Angeles at the APA's annual meeting.

Congratulations.

E. G. Sherburne Jr.
Publisher



David Hartcock/APA

Announcing a first-time ever collecting opportunity . . .

Solid 14kt Gold Miniatures of the World's Great Gold Coins

*The fifty most significant gold coins from all over the world —
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"As rich as Croesus" . . . "the Midas touch" . . . After more than 2500 years, we still speak of Croesus and Midas—rulers of the ancient realm of Lydia in Asia Minor, a land whose rivers were rich in gold, and where the world's first gold coins were issued. And through all the centuries since, gold coins have been the most precious and universally recognized form of money.

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A remarkable achievement— an exciting collection to own

Creating this important collection has been a long and challenging task. Indeed, more than two years have been spent in *locating* all the original coins and arranging to have them represented in this collection. Thus, it will include authentic replicas in miniature of fifty of the greatest gold coins the world has known—from the *Stater of King Croesus* to the *Brasher Doubloon* . . . from the Persian *Daric* of Darius the Great to the *scudo d'oro* of Florence under the Me-



Miniature coin (at bottom right) reproduced 4 times larger than actual size to show fine detail.

dici . . . from the 200 *Mohurs* of Shah Jahan—the largest gold coin ever issued—to the high relief U.S. \$20 Gold Piece created by the great American sculptor Augustus St. Gaudens—widely regarded by numismatic experts as the most beautiful gold coin of modern times.

To re-create these great gold coins of the world in miniature was an enormous challenge for The Franklin

Mint's artists, die-makers and engravers. For it was necessary that each miniature gold coin be totally faithful to the original. As can be imagined, achieving the required fineness of detail in such a restricted space requires craftsmanship of the utmost skill and dedication. To preserve accuracy and authenticity, moreover, the miniatures will be *in proportion* to the originals. Thus, the collection will include a variety of both *shapes* and *sizes*.

Presentation case, collector's tongs and magnifier included

So that you can display these miniature gold coins to best advantage, a special presentation case will be provided to house your collection. And to enable you to study each miniature in all its fine detail, a special magnifier and a pair of collector's tongs will be included. In addition, each miniature gold coin in the series will be accompanied by a fascinating commentary written especially for this collection by a noted numismatic expert.

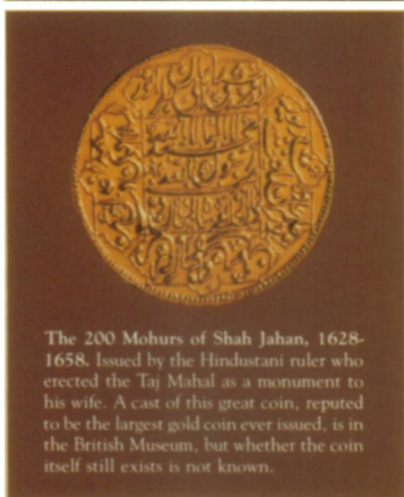
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The 200 Mohurs of Shah Jahan, 1628-1658. Issued by the Hindustani ruler who erected the Taj Mahal as a monument to his wife. A cast of this great coin, reputed to be the largest gold coin ever issued, is in the British Museum, but whether the coin itself still exists is not known.

direct subscription . . . only from The Franklin Mint . . . and only in this single edition. The total edition is permanently limited to just 25,000 complete sets—a rather small number for a numismatic issue. When each subscriber has received all his miniature gold pieces, the minting dies will be *destroyed*—thereby assuring the rarity of the collection.

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But, remember: subscriptions will be accepted in strict sequence of receipt and once the numbered limit of 25,000 has been reached, the edition will be closed forever. It is therefore important that you return the accompanying subscription application promptly—and, in any event, by September 30, 1985.

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