

Briefings

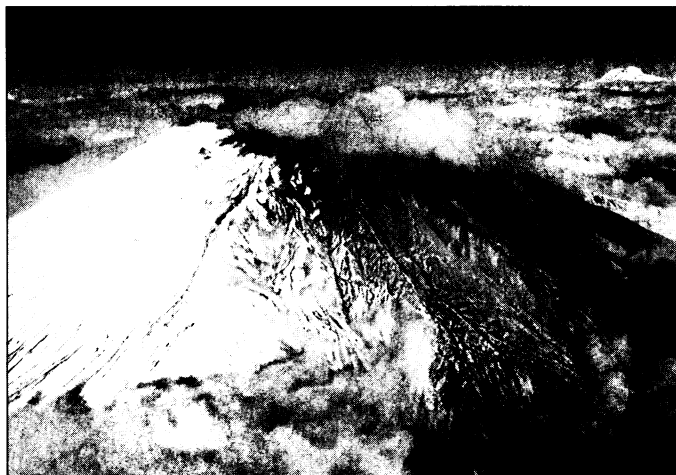
edited by CONSTANCE HOLDEN

Playing Chicken with Mount St. Helens

Life lost its zest? Looking for a bit of a thrill? Take a walk on the wild side with a visit to Mount St. Helens. With the acquiescence of federal authorities, you can go eyeball to eyeball with a certified killer whose behavior scientists cannot predict.

Just as a reminder of what it can do, the mountain shot off a volley on 5 November, its largest blast since the U.S. Forest Service opened the crater to the public 3 years ago. The explosion hurled hot blocks of rock 1 to 2 meters in diameter across the crater from a vent in its central lava dome. And that's not all—since 1986, scientists have found debris from five other dome explosions, and seismographs have recorded more blasts that could not be verified directly.

Scientists at the U.S. Geological Survey's nearby Cascades Volcano Observatory would like to be able to notify



Missed this time. Mount St. Helens sports a new rim of dark ash beneath encroaching clouds after an early morning blast.

the public before such events. But the instruments studding the volcano haven't yielded advance warnings for any of them, says observatory director Edward Wolfe.

So far, visitors to the crater have been lucky. The latest explosion struck at 2 a.m. and access was closed anyway because the public is only allowed in when there is enough snow on the ground to protect the volcano from human disturbance. That keeps hikers to a minimum, but weekend snowmobilers have been known to

leave the crater looking like a racetrack. A bit of bad timing could make for quite a day at the races.

German Court Rules on Physics Surveys

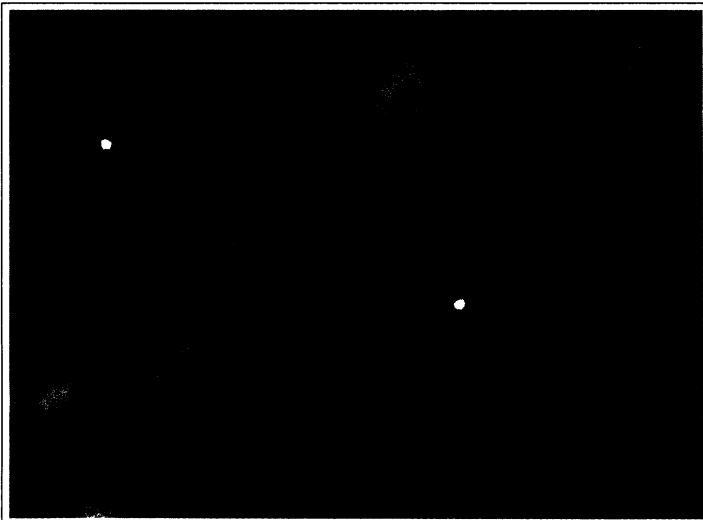
When the verdict came in, the science publishing company Gordon & Breach presented it to the world as a vindication. G&B had been seeking to halt the distribution of journal pricing surveys published by the American Institute of Physics

and the American Physical Society (*Science*, 20 April, p. 298). Now, according to G&B's press release, a German civil court, on 31 October, has agreed with it that the surveys, in which the prices of G&B journals appear to be extremely high, were "false and misleading" and amounted to unfair competition under German law.

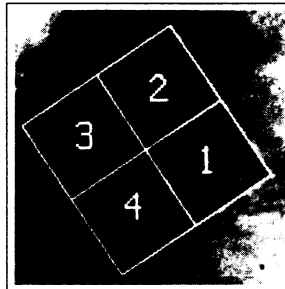
The court, however, dismissed the appeal—on the grounds that the surveys were directed at the U.S. market and their distribution in Germany was too limited. G&B chairman Martin Gordon said "naturally we're disappointed." But Gordon said the company felt "heartened" that the court agreed with it that the survey methodology was flawed.

The APS and the AIP see things differently. They have issued a sarcastic press release saying they "hope for further Gordon & Breach 'victories'" in Switzerland and France, where suits have also been filed.

The societies not only welcomed the outcome but took issue with G&B's interpretation of the court's findings. The poll's author, Henry Barschall of the University of Wisconsin, suggested in the press release that G&B president Martin Gordon must have "had some difficulty in following the German" at the proceeding in Frankfurt, which Barschall (whose native tongue is German) also attended. Said Barschall, "The court did not determine that the price survey was illegal advertising and it certainly did not find that my work was false and misleading."



velocity gas streaming outward from a newborn star. Young stars are abundant in the Orion region, where they are constantly forming, like condensing raindrops, in dense interstellar gas clouds. Jets seem to be a normal part of the birthing process, a kind of first, lusty howl as a star begins to shine by thermonuclear fusion. The image of this jet, which is several light-years long, is about ten times as sharp as those of similar jets astronomers have seen from the ground. The jet appears in a four-frame mosaic taken by the telescope's Wide Field Planetary Camera, and lies just below the boundary between frames 3 and 4 (inset). It has been colored to highlight the emissions of gaseous sulfur (red), hydrogen (green), and oxygen (blue).



Hubble Sees Birth of a Star. Peering into the heart of the Great Nebula in Orion, a glowing "stellar nursery" some 1500 light-years away, the Hubble Space Telescope has discovered a jet of high-

Who Takes Science?

Who majors in science in college? Brainy overachievers—and especially brawny brainy ones. Males outnumber females by almost 2:1, according to the National Center for Education Statistics, but whatever their sex, high school kids heading for science in college spend more time doing homework and get higher grades, the

NCES survey found.*

Indeed, more than one-third of the "straight A" high school students the NCES surveyed majored in science, and this group made up close to half the college science majors. Only about 8% of science majors had less than a B average in high school.

Another marker of science seekers: although few of the high school seniors NCES surveyed took advanced courses such as calculus in high school, 45.6% of the science majors had done so, suggesting that "interest in science, engineering, or mathematics may already be well developed in high school."

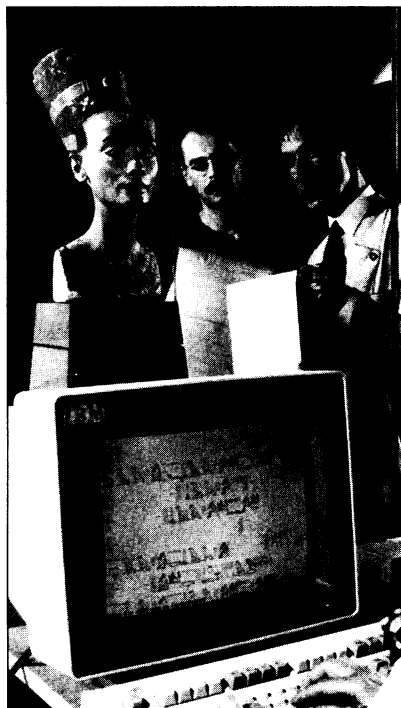
The NCES collected these data from a representative sample of some 10,500 1980 high school graduates who also graduated from college. It reports that about 24% had majored in science, engineering, or math.

*Who majors in science? From the U.S. Department of Education Office of Educational Research and Improvement.

New Life for German Egyptology

Among the consequences of the 45-year political isolation of East Germany was the isolation of untold numbers of cultural artifacts, including much of the world-renowned Egyptology collection previously housed in the Neues Museum in Berlin. That repository was destroyed during World War II, its contents hidden in salt domes. After the war, the collection remained separated—the bust of Nefertiti, for example, went to the Egyptian Museum in West Berlin, while that of her husband King

Nefertiti observes
while Germans at
museums in East and
West Berlin reunify the
nation's Egyptology.



The news from England keeps getting bleaker. Last summer came the news that British inventiveness was in a slough (*Science*, 17 August, p. 737), and now a survey published by the Association of University Teachers (AUT)* reports that nobody in English academia seems to like his or her job. The AUT, which represents 31,000 faculty and staff members at British universities, ought to know. When asked "If you were starting your career now, would you find a university career in Great Britain attractive?", only 6.5% said they would, according to the survey.

Almost two-thirds (62.5%) were considering a job change, and of those, 95% said they liked the idea of leaving the country altogether. Almost half reported that their jobs had become less satisfying in recent years. Why? "The key problem," says the AUT, "is uncompetitive pay." But conflicting job demands, lack of public recognition, and "new

Ikhnaton, their daughters, and information on the excavations ended up entombed in East Berlin's Bodemuseum, sealed off from Western eyes for more than four decades.

Now, in a project funded by IBM Germany, scientists from six German institutions are pulling the information from these collections together into a new Egyptology database, to

be housed in the Egyptian Museum. The project, coordinated by the museum's director Dietrich Wildung, will take 2 years and will include the computerization and analysis of tens of thousands of hand-drawn cards containing hieroglyphic samples from East Berlin's Academy of Sciences and other institutions. Scientists intend to construct a modern "dictionary" of ancient Egyptian from which they hope to gain new insights into the meanings and grammar of the language.

Umbilical Blood as Marrow Substitute

Doctors at the Johns Hopkins University Medical Center have pulled off an unprecedented, and apparently successful, "cord blood transplant" on a 4-year-old boy, Michael Sancilio, victim of a rare and deadly form of leukemia.

Three months ago, in a procedure similar to marrow transplants, surgeon John Wagner destroyed Michael's cancerous bone marrow with chemotherapy. He then injected 90 milliliters of blood taken from the umbilical cord and placenta

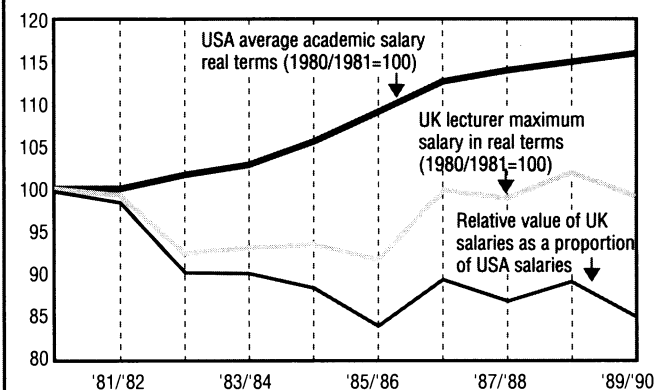
of Michael's infant sister, who was born a month after he was diagnosed with juvenile myelogenous leukemia. The Wagner team's theory was that, because cord blood is rich in the stem cells that generate bone marrow, the transplanted cells would act as they do in a newborn, heading straight for the bone to produce noncancerous marrow.

Michael's doctors decided to take the plunge with the unproven operation—rather than wait 6 months until his sister was old enough to donate bone marrow—because his disease is usually fatal within a year. They appear now to be vindicated: the leukemia is in remission.

The operation was not only the first such procedure to treat leukemia, but only the fourth cord blood transplant ever attempted (the second in the United States), according to Wagner. It can only be done with young children because there is not enough blood in an umbilical cord to treat an adult. But the apparent success of the Hopkins transplant has doctors talking about the possibility of a national cord blood bank for child leukemia victims who cannot find bone marrow donors.

Dreary Days for British Brains

COMPARISON OF UK AND US ACADEMIC SALARIES



management styles" are also adding to unhappiness. Indeed, close to half the respondents found their jobs stressful, and 77.2% of these said job stress is on the increase.

*Goodwill under stress: morale in UK universities, published by the AUT, United House, 1 Pembridge Road, London W11 3JY.