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COVER: Although legend claims Don Quixote used these graceful wind machines as jousting partners, they actually served a more practical, albeit fair-weather function in pumping water and milling grain. Shown here are the vestigial frames of giant Majorcan windmills, since replaced by more modern pumping systems. But for the Third World, primitive windmills still offer a simple and inexpensive source of power. See p. 234. (Photo: James A. Sugar, © National Geographic)

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OCTOBER 8, 1977

LETTERS

Paranormal trap

A comment on the scientifically controlled and conducted tests that I and other representatives of the Committee for the Scientific Investigation of Claims of the Paranormal conducted in France with the alleged "physic" Jean-Pierre Girard (SN: 8/20/77, p. 118): Since Girard failed utterly to produce any wonders before us, under conditions that representatives of the Pechiney Aluminum Co. agreed were proper and adequate, the head of their labs, Charles Crussard, has now announced that the entire episode involving me and the viewing of some laughable videotapes, which had been prepared by Pechiney to prove the authenticity of Girard's powers, was a clever "trap" to see if I was really capable of detecting chicanery by the French conjuror.

Further, though Crussard had promised before witnesses that the Committee would be supplied with copies of the Girard tapes and films that we were shown, he has now refused to supply them, claiming that it is now "not necessary" to supply them. The real reason is that the evidence of sloppy procedure and bad research is all too evident from even a cursory viewing of these visual documents.

Such invention and deception is all too common in a pursuit that strives to be accepted as a science but belongs in the realm of quackery.

It will be interesting to watch the progress of another exercise in humbug—the claimed levitating, invisibility and walking-through-walls miracles of the Maharishi's devotees. I predict that they will soon withdraw such claims under the guise of "de-emphasizing" the feats as a result of so much publicity. But the faithful will still have handed over the money for the lessons, and not one of them will be able to demonstrate an erg of levitation, a Wells of invisibility or a centimeter of wall penetration.

James Randi
Rumson, N.J.

Ultraviolet Quasar

I read with great interest your articles "U-Drive rocket sees quasar in UV" (SN: 7/9/77, p. 24) [see also "Quasar 3C273 ultraviolet spectrum" (SN: 9/24/77, p. 199)]. The Johns Hopkins astronomers and NASA/GSFC engineers should be congratulated for the significant astronomical observation and the ingenious technological achievement. However, I do want to set the record straight here. The first observation ever of a quasar (in this case,

3C273) in the ultraviolet region of the spectrum was made by the University of Groningen experiment aboard the Dutch Astronomical Netherland Satellite (ANS) on June 28, 1975, about two years before the rocket flight that you reported. The Groningen results of the quasar 3C273 were first reported to the International Astronomical Union General Assembly in Grenoble, France in August 1976. And the full analysis and interpretation of the Groningen observations were presented to the 150th meeting of the American Astronomical Society in Atlanta, Ga., on June 13, 1977.

The Groningen results can be briefly summarized. The ultraviolet flux distribution of 3C273 shows a deficiency from a power law at the rest wavelength of 2160 Å (near the peak efficiency of light attenuation by dust particles). This suggests the presence of dust grains internal to 3C273. After correcting for this internal reddening by dust, the continuum of 3C273 is a power law of spectral index 1.21. This power law correctly predicts the X-ray flux of 3C273 and provides more than enough photons to excite the hydrogen Balmer lines by the ionization-recombination mechanism and the Fe+ emission lines by the resonance fluorescence mechanism. Absolute intensities of the C³⁺ (triply ionized carbon) resonance emission line at 1550 Å and the C²⁺ semiforbidden line at 1909 Å were also measured by the Groningen experiment. A knowledge of the shape of the continuum and the strength of the emission lines is essential in the model construction of 3C273 and provides further insight to the quasar phenomena.

Chi-Chao Wu
Computer Sciences Corp.
Silver Spring, Md.

Sit on Science News

Your cover on the March 13, 1976 issue of SCIENCE NEWS was the beginning of my needle-point pilot seat in our boat.

This "brain-scan" cover looked like needle-point to me so when my wife, Mary Ruth, asked me what design I wanted on the pilot seat cover, she was delighted with the idea, and the implication.

Harold H. Morse
Harrisville, Mich.



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