

SCIENCE NEWS®

A Science Service Publication
Vol. 108/July 26, 1975/No. 4
Incorporating Science News Letter

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COVER: After the successful link-up and docking maneuvers, Russian and U.S. astronauts—Kubasov, Leonov and Stafford (inset)—meet and greet in space. See p. 52. (Photos: NASA)

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Editorial and Business Offices
1719 N Street, N.W.
Washington, D.C. 20036

Subscription Department
231 West Center Street
Marion, Ohio 43302

Subscription rate: 1 yr., \$10; 2 yrs., \$18; 3 yrs., \$25. (Add \$2 a year for Canada and Mexico, \$3 for all other countries.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code.

Printed in U.S.A. Second class postage paid at Washington, D.C. Title registered as trademark U.S. and Canadian Patent Offices.

Published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255). Cable SCIENSERV. Telex 64227.

LETTERS

Assassination film

I was much interested in your article concerning computer analysis techniques used in examining eyewitness films of the J.F.K. assassination for the purpose of determining the possible presence of a "second assassin" (SN: 7/12/75, p. 24). In the stream of renewed interest in the case, it was refreshing to see some evidence that was both scientific and objective in nature. However, as an assassination buff, I am bothered by several points. Which of the nine known eyewitness films were examined? Did the study include the Zapruder film, generally recognized as the best visual account of the tragedy in Dallas by both proponents and critics of the Warren Report? Were there any revelations concerning the number and trajectory of the bullets fired? And how was the violent backward and leftward recoil of Kennedy's head accounted for in this study?

Gary D. Kurz
Enid, Okla.

(The film in question was that taken by Orville Nix, whose 8-mm camera was aimed across President Kennedy's limousine, right at the "grassy knoll" farther down the street. UPI Newsfilm purchased the Nix film for \$5,000 in January 1964. Stills from it have appeared in the Warren Report and the UPI/American Heritage book Four Days. The computer study did not include the Zapruder film, which is owned by LIFE magazine (purchased for \$150,000). The last two questions were not considered in the Schonfeld article in the July-August COLUMBIA JOURNALISM REVIEW, on which our article was based. To re-emphasize, the analysis by Caltech's Jet Propulsion Laboratory concluded in February 1975 that the Nix film "fails to support strongly 'the grassy knoll assassin' theory." The 1967 Itek study's conclusions [that the shape that could be taken for a man lacked depth and therefore must be a shadow] "remain the most likely."—Ed.)

Chaos and causality

It tires me no end to listen to these periodic chicken-littles crying about the end of causality, etc. ("The Blob that Ate Physics," SN: 7/12/75, p. 29). Newton and Euclid still work under limited conditions; Einstein works for lots of things. That problems should appear under extreme conditions and require new qualifications, even modifications involving cause and effect and most of older physics, is not surprising; causality will still work under lesser

conditions, as will Newton, Euclid and Einstein. The existence of chaos at the various extreme points of reality seems quite a normal thing, and should not distress us who live in the relative order of our sphere. If all was order and determinism, there would be no emerging novelty in the universe; everything would be a strict, unsurprising derivation, finite and deductive. We do not live in a Cartesian universe, and that is a cause for happiness. Science writers should study more in the philosophy of science and learn how to make restrictive conclusions about what the new physics may mean and to what degree.

George Zebrowski
Johnson City, N.Y.

Intensify that image

In the article "A galaxy halfway to time zero" (SN: 7/5/75, p. 5), the following sentences appear: "Even the best telescopes can't make much of 21.7 magnitude, which is actually fainter than the general night-sky background brightness. That's where the image intensifier comes in." And a photo is shown pointing out 3C 123. My question is, how can the image of this galaxy appear on a photographic plate as a bright spot when actually the background brightness of the sky is greater than the brightness of this image? My impression was that image intensifiers, like optical telescopes, were limited by the general background brightness of the night sky.

Richard Weber
Ellis, Kans.

(Even though the brightness of the galaxy is less than that of the sky background, when it is imposed on the already existing background, it makes a brighter spot than the surrounding area, and so it can be picked out.—Ed.)

Trepidation on wine science

I read "Bacchus At the Lab Bench" (SN: 7/12/75, p. 26) with a good deal of sorrow. I remember a famous winery in the Northeast that used to produce excellent wines. The chemists got into the act (and the accountants), and now vinegar tastes better. I remember California plum tomatoes before a new variety was developed to make mechanical harvesting possible. If these are the tomatoes I must eat, I'd rather not eat tomatoes. I remember Country Gentleman sweet corn; try and get it. All that is generally available is golden bantam—good for the cows.

As a consequence of the above I look with trepidation at the activities at U.C. Davis.

I. E. Brussel-Smith
Chemical Engineer
Millwood, N.Y.

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