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Letters

Free-floating cars and windows

I would like to update the view of state-of-the-art holography given in "Computer images: Hanging in space" (SN:7/26/86,p.51).

At the 1984 annual SIGGRAPH Computer Graphics Conference in Minneapolis, what we believe to be the first public showing of computer-generated holograms for automotive applications was made by Ford Motor Company, Cray Research and Advanced Dimensional Displays (ADD). An aerodynamic computer model was rendered by a supercomputer in a few hours, and ADD's holographic processes, similar to those described in the article, performed in less than four days. The result was a smooth, sleek car, floating in space, with the eerie red shimmer characteristic of HeNe laser light. The hologram was more than eight feet long.

In early 1985, ADD made a hybrid hologra-

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Cover: Over the last century, artists and paleontologists have worked together to transform fossil fragments into vivid glimpses of prehistoric life. A touring exhibit of dinosaur art traces the evolution of thought about dinosaurs — from their portrayal in the earliest paintings, such as Benjamin Waterhouse Hawkins's "Jurassic Landscape" (top), painted around 1870, on through the most recent and much more realistic images, such as Mark Hallet's 1986 painting of *Mamenchisaurus* walking through the mudflats of western China 140 million to 155 million years ago (below). (Top painting from Princeton Museum of Natural History; bottom painting from Los Angeles County Museum of Natural History)



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phic stereogram using motion picture special effects techniques to combine a 3/8-scale automobile model with a live actress in front of the main office of Advanced Concept Center (ACC, a General Motors subsidiary). ACC had contracted ADD to demonstrate the viability of holograms as a means of "previsualizing" CAD information. When the GM engineers and designers viewed the hologram, they perceived two eight-foot-wide holographic windows into a life-size scene.

ADD's current computer graphic stereogram technology has been used in diverse industrial applications. Engineers at General Electric and Bechtel quickly orient themselves to the design of a nuclear reactor that peels like an onion as you walk by. Every Arthur Andersen office is marked on a 360°, rotating computer-graphic globe with a flying title reminiscent of the Universal Pictures logo.

Under a NASA contract ADD is researching a technique for a real-time, three-dimensional display. We feel that this system will find im-

portant applications in medicine, CAD/CAM, aviation and other fields.

William Redmann
Vice President, ADD
Van Nuys, Calif

Pork problems

In "Another hazard of undercooked pork" (SN:7/19/86,p.37) you talk of risk of infection by *Toxoplasma gondii*. You consider the effects on those who are immunocompromised and on newborn infants. But what are the effects of *T. gondii* infection on otherwise normally healthy individuals who are not, nor will be, pregnant?

C. Church
Sunset, Utah

With enlarged lymph nodes the most common manifestation of disease, toxoplasmosis infections go unrecognized in most otherwise healthy people. Serious cases, however, can cause pneumonia, an inflammation of the kidneys or skin rashes.

— J. Raloff

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