
The Doctor Is In

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In 1999, Tung Jeong, professor emeritus at Lake Forest College, spent a week at New Trier High School as scientist-in-residence. During this time, he met with physics students and staff in both large and small groups to discuss the art and science of holography. As a result of a workshop he presented to our physics teachers, more than 700 physics students now make reflection holograms annually. In conjunction with his visit, he displayed some of his most spectacular holograms in our school's art gallery. Many visitors to the gallery were convinced that the disarmingly real-looking images were actually objects displayed behind glass. One hologram in particular fooled almost everyone.

During the installation of his holographic exhibition, Jeong showed us a transmission hologram of himself standing in a laboratory at Fermilab in Batavia, Ill. Jeong informed us that the striking hologram, created by Ed Wesley and himself, is available commercially.¹ Noting that the gallery had a storage

closet, he somewhat jokingly suggested that we should cut an opening in the closet door large enough to accommodate the hologram. Illuminated with a laser located in the closet, the resulting holographic image would appear to be behind the door. He said with a smile, "You could title the faux diorama 'The Doctor Is In.'"

Within two days, our very accommodating physi-



A transmission hologram is used to produce a life-size scene of Jeong in his laboratory.

cal plant service department found, modified, and installed a door capable of receiving the hologram. Only minutes after the door was hung, the hologram and the illuminating laser were in place. Finally, a push button was installed in the door. The button was used to control a light inside the closet. When turned on by an unsuspecting visitor, the light would reveal the ruse.

The photographs illustrate what visitors to the gallery saw as they approached and then peered into the hole in the closet door. Photo 3 was taken by inserting the camera lens in the door's opening and focusing on the holographic image. Photo 4 reveals the true contents of the closet, sans doctor.

The hologram need not be mounted in a door to elicit ooh's and ah's from your students. Holograms seem to have the power to captivate in any setting.

Reference

1. "The Doctor Is In" glass transmission hologram (4 x 5 in) is available from Integraf, 745 N. Waukegan Road, Lake Forest, IL 60045; <http://www.Holokits.com>. Viewable with a low-power laser, the hologram shows a 20-ft deep 3-D scene of Jeong in a laboratory. The hologram comes with mounting and viewing instructions and costs \$80.

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