

# EXPOSURE ETTIQUETTE

The formation of a hologram depends on "freezing" the fringe patterns formed by the constructive and destructive interference of the reference and object beams. As you have seen from the Michelson Interferometer demonstration, the standing wave pattern is very fragile and any movement of the isolation table, caused by shifting your feet, loud talking, or sneezing will vibrate the table and blur the fringes. For transmission holograms, motion of even a half of a wavelength could ruin the pattern, and the tolerance in reflection holograms is only one quarter of a wavelength or 158 millionths of a millimeter.

So to avoid disappointments in holography, it is extremely important that everyone in the area be as quiet as possible during exposures. No talking or moving around in the immediate area of the table that is exposing, and while some talking in the darkroom may continue, please be alert to the fact that if it is quiet out in the table area, don't come rushing out. No type of horseplay will be tolerated anywhere because there may be some shooting of holograms in the room directly below the sand tables. It is only common courtesy to ensure that yours and everyone's holograms come out well by politely freezing when someone yells out "Making and exposure."

Before announcing that you are going to shoot, double check your set-up prior to putting your film into the holder. Don't forget to squeeze out the air from between the film and glass plates by laying a brick on the film sandwich. Close up the doors on the canopies and then announce your intent to expose. Wait until everyone else stops their movement. Then pull your shutter card out of the sand and hold it in the

air while still blocking the beam to let the table settle for about 15 to 30 seconds. Patience is a necessity for holography. Then remove the card completely to let the beam pass through the set-up to expose the film. Put the card back to end the exposure and don't forget to say "Thank you" so that everyone will know that the exposure has been terminated.