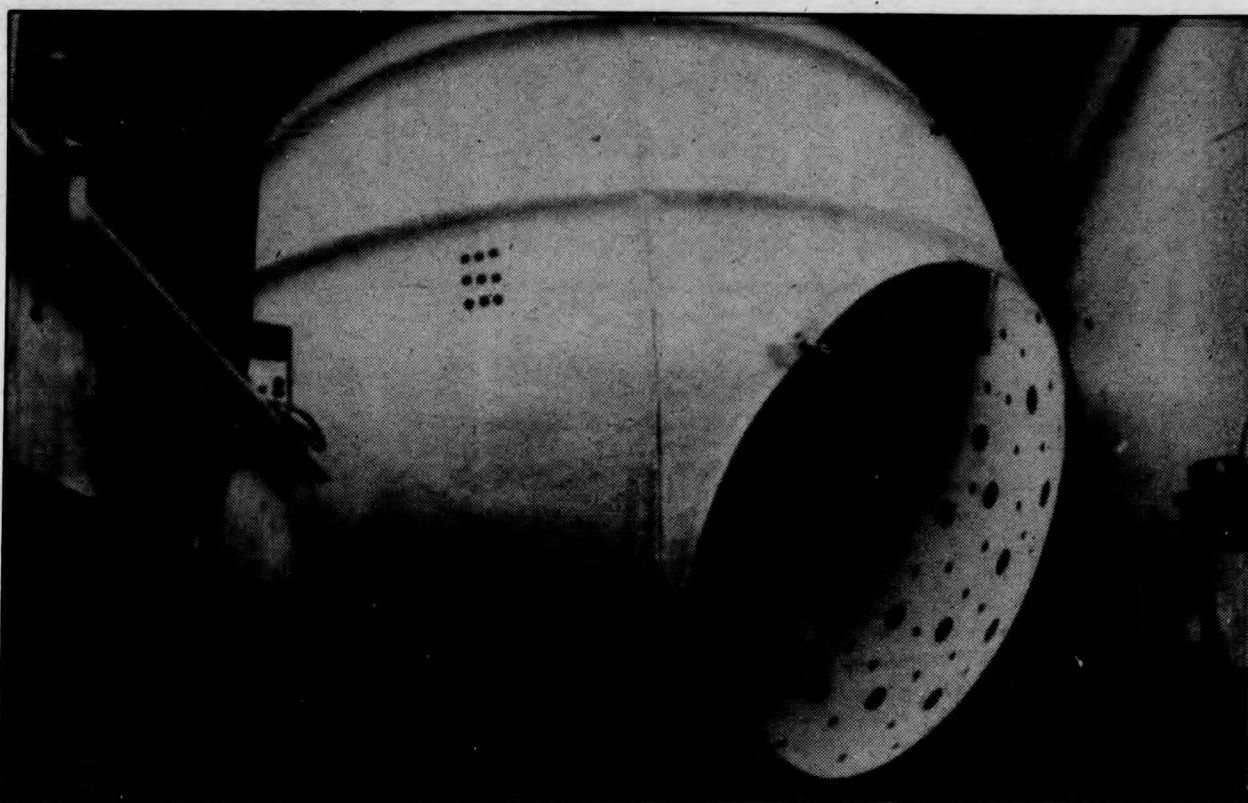
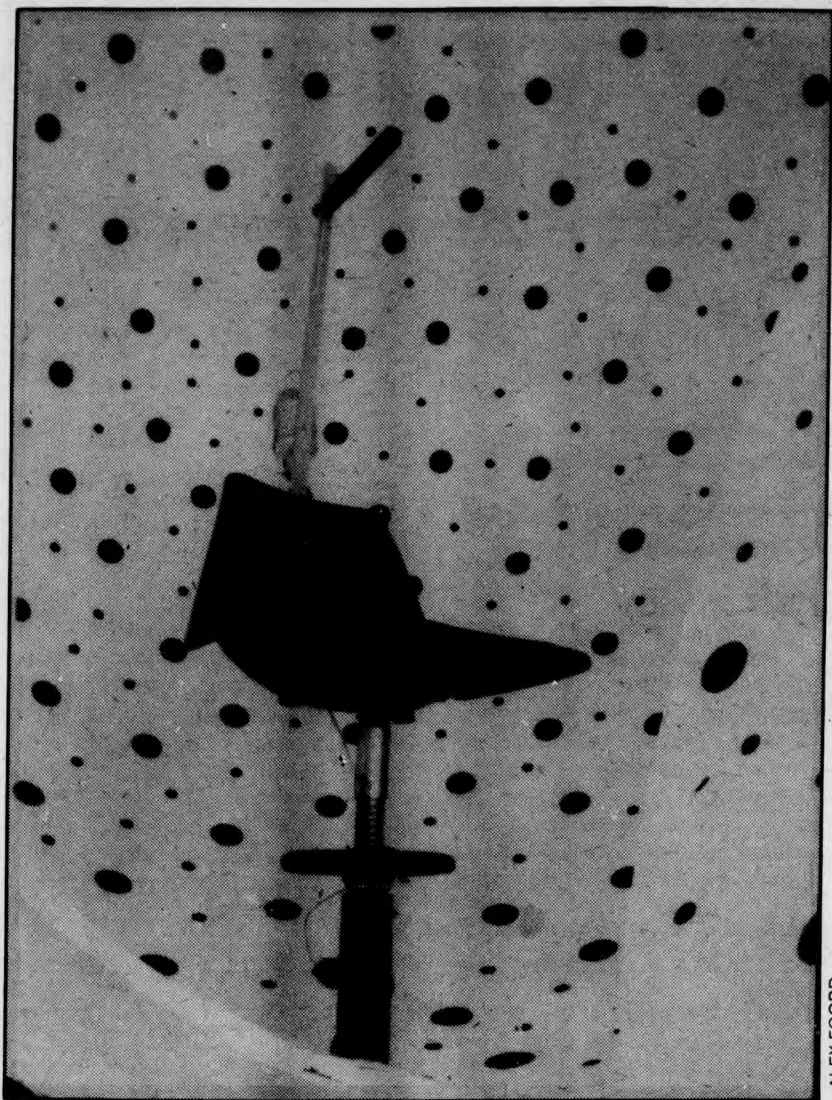


SCIENCE: Shakeup and illusions of the human senses



A view of Dr. Ian Howard's rotating sphere taken from the outside in photo above. For a closer view, see the sphere from the inside, in photo left.

Motion sickness test

By GISELLE WINTON

If university life isn't enough of a ride for you, then why not hop into Dr. Ian Howard's rotating sphere?

Dr. Howard of the department of psychology has created and is operating the nine-foot diameter sphere in conjunction with the Defense and Civil Institute of Environmental Medicine (DCIEM) in Downsview. The experiment is part of earth-based studies related to the space shuttle experiment on motion sickness.

The experiment studies the visual illusions that motion from various sources have upon the human senses. A person is strapped inside the sphere in various positions and is rotated round and round, or upside down with the sphere, or even independently of the sphere. Likewise the

sphere can move independently of the subject.

"To understand motion sickness in the space shuttle, we have to know what happens on earth; otherwise we have nothing to compare it with," says Dr. Howard. Thus, his study of motion in all possible directions in all possible positions acts as a control.

Howard says there are two types of motion illusions. First, there is the illusion of self-motion when actually, one's environment is moving. A common example of this phenomenon occurs when you watch the subway train come through a tunnel and you feel as if you are moving instead.

The second is visual motion, which one would feel after rolling down a hill and then standing still,

whereby the stationary scene appears to be moving. You can also feel this type of motion after a night of drinking at a good party—or a bad one for that matter.

The organs that detect motion are the vestibular organs inside the ear—which signal head turning—and the utricles in the eyes that respond to gravity. It is the utricles that cause the motion sickness because they don't work the same way on earth as they do in space.

On earth if we turned upside down we would feel it, but when the astronauts first enter zero gravity space, they expect to react the same way. In fact, they are rotating head over heels repeatedly, but, while they can understand this intellectually, their bodies can't accept this because there is no sensation of tumbling. It generally takes the astronauts' bodies a few days to adjust to zero gravity.

Howard's sphere is located downstairs in the Behavioural Sciences Building which can be seen as one enters or exits the tunnel.

Howard added, for the benefit of any interested parties, "I am not trying to induce motion sickness."

Polit Bureau

Bethune council challenges others to beat pledge

By MICHAEL BARWICK

In light of the massive starvation problem in Ethiopia, Norman Bethune College Council has come up with its own small way to help.

A motion was passed through Council on Wednesday, November 14 to send \$100.00 to World Relief Canada in order to facilitate food distribution in Ethiopia. The Council is challenging every other student government on campus to equal or surpass their pledge.

Kevin White, the college residence dons' representative on council who put forward the motion, called it "largely symbolic." White said although "it (the contribution) may be small,

it is my hope that we can generate some real help for Ethiopia."

The money will be used to distribute food which White says is "the major problem. The food is on the docks but there isn't the money to transport it to the right areas."

Norman Bethune College Master David Lumsden supports the motion and called it "typical of Council." He hopes that it not only stimulates aid for Ethiopia but that it "fosters a sense of internationalism that has always been Norman Bethune College's concern." He pointed out that Council has sent aid to relief agencies in times of world crises before.

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