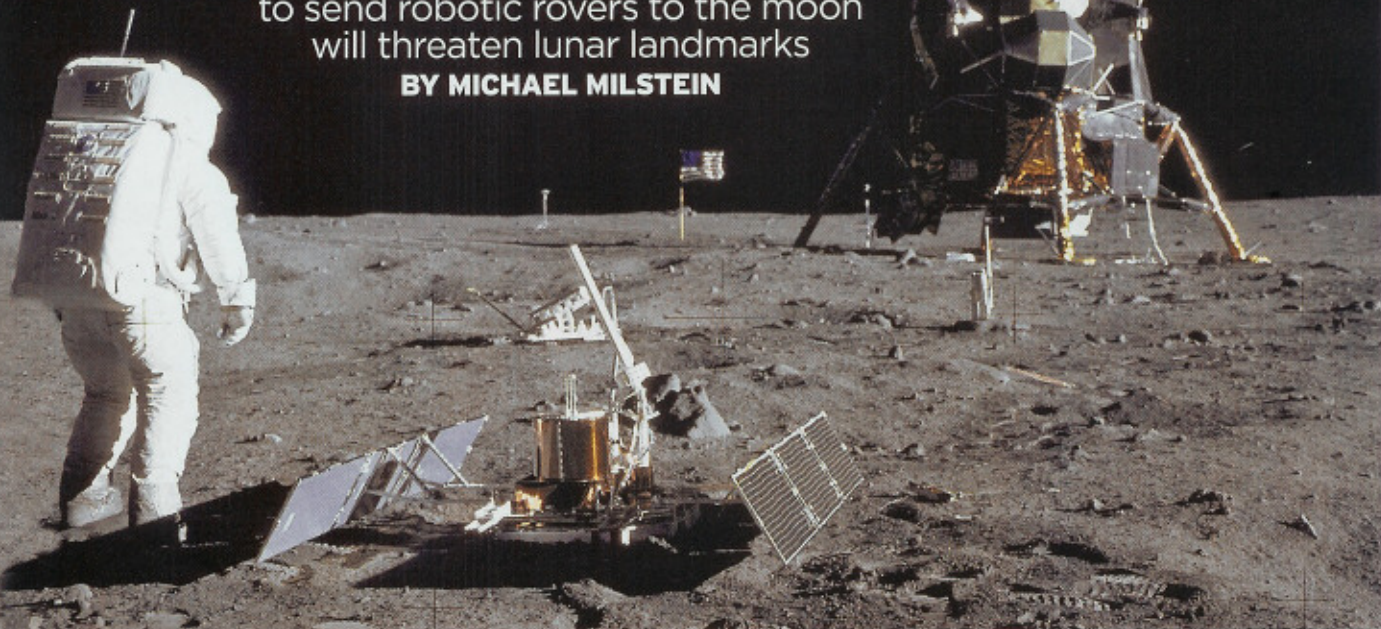


# DIGS

## Space Race II

Scientists worry that a contest to send robotic rovers to the moon will threaten lunar landmarks

BY MICHAEL MILSTEIN



**T**HE SECOND RACE to the moon has begun—and this time there will be a big cash payout for the winner. Four decades after Neil Armstrong took his giant leap for mankind, the Google-sponsored Lunar X Prize is offering \$20 million to any private team that puts a robotic rover on the moon, plus \$5 million in bonus prizes for completing such tasks as photographing

one of the numerous man-made artifacts that remain there—for instance, the Apollo 11 lunar module descent stage that Armstrong and Buzz Aldrin left behind in 1969.

One goal of the Lunar X Prize is to rekindle excitement in space exploration by beaming pictures of historic lunar locations to Web sites or even cellphones. But dispatching robots to snoop around the moon also poses a risk to some of the most precious archaeological sites of all time. What if a rover reached Tranquility Base, where Armstrong landed, and drove over footprints, which are still intact and represent humanity's first expedition to a celestial body? William Pomerantz, the director of space projects for the X Prize Foundation, acknowledges that possibility. "There's always a tradeoff between wanting to protect the history that's already there and wanting to visit the history," he says.

The competition brings into focus a potential problem that worries a growing circle of archaeologists and space historians: the careless destruction of invaluable lunar artifacts.

At Charles Sturt University in Australia, Dirk H.R. Spennemann—who specializes in the preservation of technological artifacts—says Tranquility Base symbolizes an achievement greater than the building of the pyramids or the first Atlantic crossing. And because the moon has no atmosphere, wind, water or known microbes to cause erosion or decay, every piece of gear and every footprint remain preserved in the lunar dust. Spennemann advocates keeping all six

Apollo sites off-limits until technology enables space-faring archaeologists to hover above them, Jetsons-like. "We only have one shot at protecting this," he insists. "If we screw it up, it's gone for good. We can't undo it."

The initial response to the Lunar X Prize initiative—which had ten registered teams at the end of April—suggests the moon's remoteness won't discourage unofficial visitors for long. History teaches a similar lesson. When the *Titanic* sank in 1912, few imagined that it would become an attraction. But not long after Robert Ballard discovered the wreckage in 13,000 feet of water in the North Atlantic in 1985, treasure hunters in submarines looted the doomed vessel of jewelry and dinnerware.

Crafting an agreement that bars exploration of lunar sites in the coming age of space tourism may be difficult. To be sure, nations retain ownership of spacecraft and artifacts they

**The Apollo 11 mission left behind more than 100 artifacts, including a spacesuit worn by Buzz Aldrin (above).**

NASA