

AMA passes 'death with dignity' resolution

"I request that I be allowed to die and not be kept alive by artificial means or heroic measures. I ask also that drugs be mercifully administered to me for terminal suffering even if . . . they may hasten the moment of death."

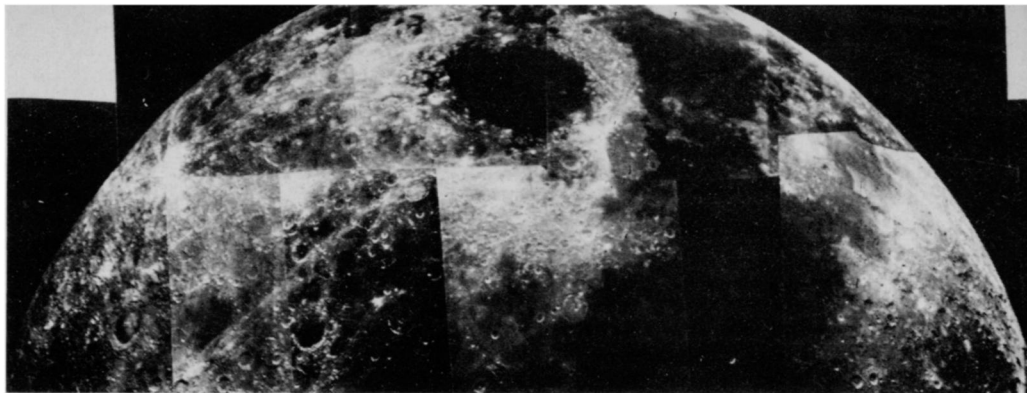
At its annual meeting in Anaheim, Calif., last week, the American Medical Association cleared the way for such statements as this to be used in providing "death with dignity" to terminally ill patients. By signing such a statement, the patient, or his family if he is unconscious, can have himself removed from such devices as artificial respirators or kidney machines and allow doctors to administer heavy doses of pain-killing drugs, thus easing and probably speeding his death.

An AMA survey of various churches revealed strong support for allowing a patient to choose his own fate, once a doctor has carefully explained the options, but most rejected the idea of euthanasia and the AMA made no further mention of the subject.

The convention also turned away from a controversial motion by some of its own members urging a legislative definition of death. Again the issue centers around life-prolonging machines that can keep some vital signs going even after the "death" of the brain. Many doctors are eager to have some legislative protection so they cannot be sued for taking an organ for transplant out of a person whose brain has ceased to function but whose heart did not stop until the machines were turned off. The current AMA position is that any legalistic definition of death, such as cessation of brain waves, is "inflexible" and that individual doctors should remain free to define death using "currently accepted criteria."

The AMA resolution marks the first time that the AMA has really faced up to the moral and legal implications of artificial prolongation of life, or tried to establish a uniform policy concerning death. At present, acceptable practice varies widely from "blue-starring" patients beyond help (signifying that "heroic" efforts are not to be made to prolong their lives) to instances of callously keeping the bodies of "gorked" patients functioning until a suitable recipient can be found for organ transplant. Much more discussion like that in Anaheim will have to come before the profession has fully worked out an ethical approach to the challenges of life-prolonging medical technology, or the public has fully understood the technology's implications for the ever-widening region of uncertainty between life and death. □

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NASA

Composite lunar photos from Mercury-bound Mariner will aid moon-mapping.

With Mariner 10 en route to Mercury

On its way to Mercury, Mariner 10 has noticed a nebula. A nebula, in fact, which ought to be invisible.

The result, says Bruce Murray of California Institute of Technology, head of Mariner's scientist team, may be "the start of a whole new field of astronomy."

Launched Nov. 3, Mariner 10 was quietly cruising toward its double goal of close passes by Venus and Mercury early next year, when a peak appeared in the data from one of its instruments, a far ultraviolet spectrometer designed primarily to look for traces of an atmosphere on Mercury. The instrument was turned on because it was being used to chart hydrogen and helium distribution in the solar system, measurable by their ultraviolet glow.

The peak, says A. Lyle Broadfoot of Kitt Peak National Observatory in Arizona, represented "tremendously intense" radiations from the Gum Nebula, a gaseous cloud left by the explosion of a star, some 128 light years away. The radiations indicated temperatures ranging from 50,000 to 100,000 degrees F., 10 times the surface temperature of the sun and about twice as hot as any stellar objects seen by ultraviolet light from earth or even the Orbiting Astronomical Observatory satellite. The hottest point was the star Gamma Velorum.

Yet some astronomers wonder why the Gum Nebula was visible at all to the unmanned space probe, let alone at such blazing temperatures. This particular nebula was thought to be a virtual antique, a cosmic relic so far past its prime that one scientist wondered that it would still be emitting any detectable heat whatsoever.

Mariner's unexpected finding may oblige astronomers to revise their views on the decay of nebulas, as well as on the violence with which a star's internal cycle of fire can keep it going.

Finding the life in the spray, old nebula has not been Mariner's only accomplishment of its journey. Its two television cameras, in test runs to check

them out for their Venus and Mercury roles, have provided about 1,000 surprisingly sharp photos of the earth, moon and stars.

Some of the lunar photos will be used to help pin down surface features on moon maps presently being refined from Apollo and other data. In addition, the views of the moon's virtually airless wastes have given the Mariner experimenters an idea of what they can expect during the Mercury flyby, where fine detail is important to such tasks as crater-counting.

The photos of earth, which show features down to tiny, individual storms, are similarly valuable for comparison with the planned pictures of the cloud structure of Venus.

Mechanically, Mariner seems to be doing well. The two camera heaters which failed to come on after launch are still off, but the camera temperatures have stabilized, and there seems to be no distortion from any temperature differentials in the optical systems.

Scientists at Jet Propulsion Laboratory, from which the mission is being controlled, are, however, studying one seemingly small but puzzling irregularity. On Nov. 21, when they commanded the spacecraft's gyros to turn on in preparation for a rolling scan of the ultraviolet sky, a small drop in power appeared in Mariner's data-processing system, then corrected itself. The roll maneuver was cancelled for the time being, but then when the same gyros were commanded again on Dec. 7, this time with more telemetry channels open to report whether there might be unwanted power surges in some electronic systems, the same thing happened. Now the search is on for a possible short circuit or other "glitch." □

NOTE TO READERS

The Dec. 22 and Dec. 29 issues of SCIENCE NEWS will be combined into a single, expanded year-end issue that will carry a review of the important science stories of 1973.