

Questions on Seeing the Ranger 7 Pictures

The pictures of the surface of the moon sent back to us by Ranger 7 are, by any standard, extremely impressive. It is almost beyond belief that small craters one foot by three feet may be seen. Certainly those who played a part in this project deserve the highest commendation. The success of this venture and its relatively small cost in this field, a mere quarter of a billion dollars, are powerful arguments for pursuing further this obvious way of space exploration and deferring for a long time the manned exploration program.

Television cameras and other sensory instruments may be sent to targets in space at about two percent of the cost required to send men, and at absolutely no risk of life. Is there any need for a better pictorial description of the surface of the moon than these pictures afford? Is there any need for observations that could not be made by thermocouples, chemical analyzers, manometers, and other instruments that send back to us electronically their abundant and accurate information?

What can man do on the moon? Man as an observer of the physical world went out with the last century. On this earth, who would use a man instead of an instrument to measure any physical quantity? Man's observations of this earth before the advent of instruments were not very accurate, and his deductions from his observations were considerably worse. Until the advent of the microscope, man's powers of observation concluded that diseases were caused by devils. Man's early conception of weather was completely changed by the invention of the barometer and, much later, of the telegraph for rapid transmission of information. The only thing man can do on the moon is to get there before someone else does, a dubious aim in an enlightened age.

Would it not be much wiser to use our science and technology to send our instruments for exploration of the universe at a cost that can be borne? The money saved could be used for admirable programs of education and improvements of our life on earth. Such a course of action would indicate that we have triumphed over our vanity.

HB