

the nuclear industry and among health physicists and others responsible for radiation protection. But it is to suggest that those looking for a balanced presentation of the benefits and risks of nuclear energy should look elsewhere than *The Careless Atom* and other more recent publications.

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. . . Novick's probing is trivial compared to the grilling the electric utility and nuclear manufacturers get from the AEC and the Advisory Committee on Reactor Safety. If Novick wants to be a Nader, he ought to take on some real opposition. The nuclear industry is having a rough time trying to displace the stacks of the coal-burners that spew smoke, sulfur dioxide, radon, and about one-fourth of a plant's waste heat into our air. Novick should try fighting the coal lobby or even the bureaucracy of the AEC itself, which is bending over backward to assure nuclear safety for the public, and has reduced the pace of long-term development of nuclear power to a crawl.

The needs of the world for energy are real. The finiteness of our fossil fuel reserve is real. The desire to harness the atom to provide safe, clean, and plentiful power is real, and so are the efforts of dedicated men to achieve these goals. The public good is not well served by scare journalism.

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Moon, Mars, and Money

Carter's rundown on NASA plans (5 Sept., p. 987) prompts me to recall Geographer George Sauer's comment as chairman of the international symposium in the 1950's on Man's Role in Changing the Face of the Earth. "We are now come," he said, at the end of that week, "to a revised version of Aldous Huxley's 'brave new world' of the '20's—to a faceless, mindless, countless multitude managed from the cradle to the grave by a brilliant elite of madmen intent on technological progress."

Paine knows full well that there is a great deal more to be done, of vital urgency, than "to fill 200 million alimentary canals every day." For one thing, there is the problem of emptying those canals! What an assault could be made on our environmental problems —physical, cultural, and economic—if the same quantities of money and brainpower and industrial facilities that go into the space program were to be applied in those fields.

"By the end of the century," says Paine, "if you haven't been to the moon, you're not going to be with it." Give NASA until 1975 (?) to create a vehicle capable of hauling 100 persons and necessary equipment to the moon. Then, a trip a day until the turn of the century would carry only 900,000 of us to the moon—only .045 of 1 percent of our present 200 million could be "with it"—about as many, perhaps, as would make use of the controversial supersonic jets with their prodigious and intolerable sound problems.

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Amchitka: Waves of Opinion

Carter's technique in his article on large-yield explosions on Amchitka (22 Aug., p. 773) is to quote the opinions of "authorities." Though factual in the sense of offering valid quotes, this approach does not truly provide the reader with a basis for drawing his own conclusions. Carter further fails the scientific community by (i) quoting only seismologists who feel some degree of alarm (he could have quoted others of equal scientific renown who would have said there was no danger from large tests on Amchitka), and (ii) quoting the opinions of other scientists who have no basis for forming definitive opinions on the subject, or who are allowing their scientific opinions to be dictated by their political beliefs.

Much scientific information is available on the matter and could have been presented by Carter if he had attended the meetings of the American Geophysical Union or if he had sought the data. The possibility of venting is to be argued only by inspection of the venting history at the Nevada Test Site and Amchitka, that history being available. The possibility that large shots on Amchitka would cause tsunamis should be evaluated in terms of the relation between large shots, observed patterns of seismic radiation from such explosions, observed aftershock activ-