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COVER: "Matter of which we are made was generated in another place and another time, in the insides of a dying star five billion or more years ago." The intimate connections between the stars and life is the theme of "The Starfolk," an article by astronomer and exobiologist Carl Sagan. See p. 282. (Painting: Van Gogh's "The Starry Night," Museum of Modern Art, New York)

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to the editor

Kirlian phenomena

The arguments concerning the origin of Kirlian aura between Tiller and Miller are fascinating from either side. However my exposure to the technology of electrophotography makes me intuitively favor Tiller's postulate of corona phenomena. I have seen all forms of amazing visual and electrostatic effects which make me wonder at the lack of decisive experiments in this case. On the other hand, it is understandable since there are few people comfortable in electrostatics and also familiar with dielectric effects and the physics of organic materials. Many aspects of fundamental phenomena in these fields are not well understood and in electrophotography we become exposed if not immersed in perverse and frequently whimsical phenomena as a matter of course.

Rudolph P. Guzik
Senior Physicist
APECO Corp.
Chicago, Ill.

Fuel for the population bomb

Science is of course concerned with basic knowledge; the decisions of when to apply this knowledge to a particular problem and what to do constructively or destructively with it are political in nature. Science can however give helpful advice to forestall or prevent disastrous consequences of its own misuse or nonuse. Thus the discovery of nuclear fission was scientific but its employment as a weapon is really political.

There are countless examples of this situation in our world but one which particularly struck me was the recent development of high-protein sorghum (SN: 10/6/73, p. 212). At first thought, it appears that hundreds of millions of people will be saved from starvation. However when one realizes that their situation is not a temporary one, but has existed for many generations, the real cause of their malnutrition becomes evident: *a propensity of the world's poorest and hungriest peoples to increase their numbers beyond the available food supply.* If a more nutritious strain of sorghum is made available, the numbers of these unfortunate people will increase and their original problem will return, only with greater magnitude. In addition, pollution and the danger of warfare will have increased. Although high-protein sorghum is a good development

from a short-term view (to counteract starvation), the best political decision is to couple its use with a sound birth-control program.

Donald H. Gudehus
Los Angeles, Calif.

According to Woods Thomas of Purdue the discovery of a high-protein variety of sorghum is a "scientific achievement of the first magnitude." In the future it may make possible a three-fold increase in the supply of that life-sustaining protein for millions of starving people. This would be heartwarming news were it not for the rapidly increasing world population. Whether life is maintained by soy, sorghum or whatever scientists discover, in another hundred years humanity will be standing on each other's shoulder unless the critical problem of overpopulation is solved.

Rosetta Livingston
Woodland Hills, Calif.

Science's 'laws'

I read with interest Zike's letter (SN: 10/6/73, p. 211) in which he proposed "intelligent intervention" as the possible explanation of phenomena which seemingly violate physical laws.

Let me suggest that the phenomena themselves describe a course which is profoundly intelligent, if not now intelligible. It is our "laws" which suffers from inadequacy in explaining what we observe. However, I hold out hope that in time we shall again, as in the past, revise our theories to encompass new observations. The behavior of creation is always stranger than our laws, and the proliferation of mystery is more strident than our proud discoveries.

Intelligent intervention is merely a neologism for the *deus ex machina* of science's infancy. It really cloaks a too-great faith in our scientific laws. It says, in effect, that our laws are so grand that when they do not seem adequate, some intelligence must be intervening. Would it not be more logical to assume that God constructed nature with enough primeval precision not to require His, or anyone else's, intervention?

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