and his activities. This is entirely untrue; no such statement, nor any other, was issued by Soviet participants at any of the Pugwash Conferences. Those familiar with these conferences know of the inviolable rule that only the Pugwash Council is authorized to make public statements at conferences.

The article by Spruch probably refers to a story, which circulated in 1973, that Kapitza's name was not on the list of those members of the Soviet Academy of Sciences who had published a letter attacking Sakharov. But that letter was published in Moscow, and had nothing to do with Pugwash. While some Soviet scientists who have attended Pugwash Conferences were among the signors of this letter, others—such as the late L. A. Artsimovich as well as Kapitza—never permitted their names to be associated with any anti-Sakharov campaigns.

We hope and expect that expect that many of Sakharov's Soviet colleagues will join with scientists from outside the Soviet Union in expressing concern about and trying to reverse the recent actions of Soviet authorities against Academician Sakharov.

JOSEPH ROTBLAT
University of London
BERNARD T. FELD
1/30/80 *Massachusetts Inst. of Tech.*

(The authors of this letter were the first two Secretary Generals of the Pugwash Conferences on Science and World Affairs.)

THE AUTHOR COMMENTS: Although my primary source of information was interviews with friends and colleagues from Kapitza's Cambridge days, more recent material had to come, in some measure, from newspapers, because of the inaccessibility of the subject. In a feature article in *The New York Times*, 16 September 1973, Israel Shenker discussed a warning by the National Academy of Sciences to Soviet authorities that harassment of Sakharov could interrupt American–Soviet scientific cooperation. The article contained the following: "The American scientists' concern had been sharpened in discussion with members of the Soviet Academy attending a Pugwash Conference (an informal forum of scientists from East and West) in Helsinki. That discussion, as Professor Harrison Brown put it, 'fortified our belief' that Dr Sakharov was in danger. Four of the five Soviet academicians at Pugwash had signed a letter attacking Dr Sakharov. The fifth, Pyotr Kapitza, also long persecuted by Soviet authorities, had not signed."

I had been unaware that the letter mentioned by Shenker, as Joseph Rotblat and Bernard Feld point out, was evidently one published before the Pugwash Conference and signed by forty members of the Soviet Academy. I misinterpreted Shenker's remarks to mean that a separate letter had been issued by the Soviet scientists at the Pugwash Conference.

I apologize for the error, but take some comfort in the opportunity it provides to publicize the nature of the Pugwash Conferences; I can feel only relief that rectification in no way alters any position taken in my article, since it does not detract from the courageous stance of Kapitza or the heroism of Sakharov.

GRACE MARMOR SPRUCH
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Suppressing amateurs

In the past twelve months or so many soothing words have been spent describing the opportunities of both fresh and experienced physicists who either cannot get a research position or are out of one because of the recession. (J. R. Fanchi, February 1979, page 15; Lawrence Cranberg, December 1979, page 9; Robert Feldman, January, page 9)

I feel perplexed by these words and also by the encouraging messages to work as an "amateur" scientist. I find these words hypocritical because at the same time nothing is done to give us a chance to protect our scientist status. Our papers, without the magic names of academic or other respected institutions, are not accepted for publication. Being without those institutions we cannot get research funds. Also during the recent meeting of AAS in San Francisco, we were denied the opportunity of presentation.

Are our papers rejected because the editors do not have the heart to charge us for the publication and reprints? Does it not occur to them to get a fund for covering that cost for the benefit of authors and the country alike? Some of us are able to do scientific work even without multi-million-dollar facilities. Is this what bothers the referees? It is against some unalterable, divine policy to grant funds for researches proposed by scientists outside institutions? It seems to me the heart of the problem is that our "professional"—as opposed to "amateur"—colleagues are rather content to have us out of the competition.

We are subscribers to the scientific journals. We pay our membership fees to our scientific societies, and I do not believe that the scientific community of this country ever explicitly consented to the exclusive use of the columns of the scientific journals and other forums by our "professional" colleagues.

I believe it is imperative to protest this unofficial but well-organized suppression of unwanted scientists in this country. It is very laudable to spread the concept and practice of human rights all over the world. However, our own shortcomings should be rectified before we warn other governments about theirs. For the individual scientist it does not matter which set of rules blocks his scientific activity as long as the results are the same.

LANCE I. KETHLEY
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Ship of nuclei

The models used in physics are determined, in part, by the biases of their creators. Land-based physicists have traditionally viewed the nuclear mass surface as a "valley" of stability; however, other interpretations are possible. For instance, to one living by the sea, the portion of the mass surface shown in the computer plot on page 30 in December resembles the hull of a ship. This resemblance would be even more pronounced if the mass excess *per nucleon* (F. W. Aston's "packing fraction") were plotted on the vertical axis.

Since all nuclei, including those involved in "every living thing" (Genesis 6:19) are contained in this ship, and since Aston was the first (in 1927) to glimpse a portion of its shape (the profile of its stem and keel), the name *Aston's Ark* seems appropriate.

ROY L. BISHOP
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Careers in data processing

Robert Feldman's Guest Comment (January, page 9) entitled "A Former College Teacher at the High Schools" brings up the decade-old question of career paths for the species of the overpopulated physics community. My own experiences and choices, as a young physicist seeking employment in the late 1960's and early '70's, are as valid today as they were a decade ago.

After multiple rejections from the academic community, I asked a relative to review the applicability of my resume to the industrial world. He pointed me to an alternative career path in the newly-formed data-processing field. After initial (and unwarranted) trepidation, I found my first job in the "real world" fun—flexible hours; good, tough problems in both hardware and software to solve; congenial atmosphere; and not least, a salary that started at twice the amount I had hoped for. Since then, I have taken to data processing like the proverbial fish in water. I am presently president of my own data-processing consulting firm, still solving good, tough problems (both technical and administrative).

The moral, I suppose, is that there is a huge, constantly growing demand in an area requiring technico-logic intelligence

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letters

that every physicist I've ever known has an abundance of. The re-direction of efforts to this field from pure physics is already in the hands of practically every physicist: a logical mind and a knowledge of one or more programming languages such as Fortran, Basic, Assembler, Cobol (*no*, you don't *need* to return to school for a Masters in Computer Science!). The types of firms hiring run the spectrum from stodgy financial institutions (probably not for physicists) to consulting firms such as mine (flexible hours, tough problems, high pay). Further choices range from the environments of huge computers to microcomputers to chip-level microcomputer technology.

The realities of overpopulation cannot be ignored. If today's job-seeking physicist cannot obtain his or her optimum choice of employment in teaching or research, then I feel it is the obligation of the physics community to help foster alternative career paths. I offer my experiences in the alternative career path of data processing as an example (either positive or negative—reader's choice) to be explored.

ARTHUR D. LUGER
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Should we support China?

I would like to express my complete disapproval of the policy advocated by the AIP's H. W. Koch in his article "People and Publishing in China" in the August issue (page 32). Koch would like to see the mainland Chinese assisted in every way possible in their scientific research and the transmittal of its results.

My immediate reaction to this proposal is: how can an organization such as the AIP, which has shown its concern in the past for civil rights, even contemplate giving any aid at all to a country that is one of the worst violators of human rights in history? Are the Chinese people free to vote for a candidate of their choice, practice any religion, express personal opinions in public, or to emigrate if they so desire? I think Edward Lozansky's letter in the same August issue gave a good indication of what life is like under a similar, but still Communistic, "Worker's Paradise." In addition to all this, China has openly vowed to destroy a free democratic country—Taiwan. We physicists would be inconsistent in our civil-rights posture if we choose to fight for women's rights dealing with their quality of life, yet so callously and selectively disregard the *fundamental* human rights involving life and liberty of Chinese people on the mainland and on Taiwan.

Furthermore, since the Chinese Communists have so often and so vehemently stated their opposition to the US in the past, we should give serious thought to