

will be as difficult to understand why they were not helped and brought into a level of life that gives them some hope, as now we cannot understand the wars of religion in 17th-century Europe.

L. F. S. COELHO
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5/5/80

Russian hospitality

Timothy Toohig has given an interesting and sympathetic report (February, page 9) of a visit to the USSR. He stresses the similarities between their preoccupations and ours. Though he recognizes by implication differences between the two cultures, there is one considerable difference between Eastern Europe and much of Western Europe (which extends to North America) that Toohig passes over without comment.

As a visiting scholar he was given certain privileges not shared by his colleagues. This was certainly generous of his hosts, and many of us who have visited those parts have been cheered by such signs of friendship and consideration. But we must remember that this genuine generosity is founded upon a basic cultural difference. Their granting of privilege is predicated upon a view of accepted inequality between accomplished persons of status (such as academics) and ordinary working people that our culture, for all its faults, does not condone. With us, a professor, or even a distinguished visitor, is not entitled to any more fundamental privilege than the next man. Some may say that we end up rewarding the wrong people; but we must recognize this difference in outlook if we are to understand some of the other cultures that we live with.

ERIC P. HAMP
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3/28/80

That a person with the credentials of Timothy Toohig should fail to see through the Russian guise of hospitality is most alarming. He points out all the special privileges given to him without realizing how he is being used by the Russians to simply try and maintain their technological ties with the US. Toohig relates that his fellow Russian scientists are just people with concerns similar to ours and seem very humanistic in their attitudes, but he and they are not able to see that all around them human rights are flagrantly being violated in conflict with signed international agreements. Toohig has been duped by the Russian ruse.

Patriotism is no excuse for tolerating the violation of human rights. There is documentation aplenty of case after case of persecution of Russian people

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letters

whose only crime has been to speak out for human rights. There is also more than enough proof that just wanting to emigrate from Russia brings on the wrath of the government in a most pernicious manner, such as loss of employment resulting in the crime of "parasitism," publication rights removed, name removed from previously published papers, and in some cases imprisonment or exile to Siberia.

Perhaps as a Jew I am more sensitive to these issues because of the rampant antisemitism within Russian officialdom. Perhaps Toohig doesn't see this as his problem, but he should reflect in the words of a fellow theologian, Martin Neimoller:

"... then they came for the Catholics, and I didn't speak up, as I was a Protestant. Then they came for me. By that time, there was no one to speak up for me."

GEORGE GLASS

3/3/80 Texas A&M University

THE AUTHOR COMMENTS: Eric Hamp is, of course, correct. There are many aspects of Soviet culture that are different from ours. Many have dwelt at length on these differences, particularly those we would view as negative. I deliberately chose to emphasize the similarities, because I believe they are too often passed over. If we see the faces of ordinary men, women and children instead of an abstract "the Russians" it is much harder to tilt towards war, which is unthinkable.

Incidentally, Hamp is not quite correct about equality of treatment, as any unskilled Caribbean black or Latino trying to enter the United States will tell him. Our universities are staffed with professors who are welcomed to our land while the black or Latino is sent back to the grinding poverty of his native land. It makes it hard for us to throw stones.

TIMOTHY E. TOOHIG

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Sartre's Black Hole

Inspired by C. Krishna Kumar's letter (June, page 13) in which he quoted from Mark Twain's short story, "Jim Baker's Bluejay Yarn," the experience of a "black hole" by the little bird who tries, in vain, to fill it with acorns, I would like to share with your readers an equally exciting and vivid account of a "black hole" by another celebrity in literature, Jean-Paul Sartre, in 1938.

As a matter of fact, in Mark Twain's passage, the hole is described as anything ("a perfectly elegant hole," "a mighty long hole," "a totally new kind of a hole," "a long hole and a deep hole

and a mighty singular hole altogether") but *black*.

Sartre's "Nausea" (translated by Lloyd Alexander, *New Directions*, 1964) presents a more intimate description of the black hole through the eye of Antoine Roquentin:

"... I enter the black hole. Seeing the shadow at my feet lose itself in the darkness, I have the impression of plunging into icy water. Before me, at the very end, through the layers of black, I can make out a pinkish pallor..."

He also depicts the personal experience of being in the black hole:

"... I stop to listen. I am cold, my ears hurt, they must be all red, but I no longer feel myself; I am won over by the purity surrounding me; nothing is alive, the wind whistles, the straight lines flee in the night..."

"... I am so happy: this cold is so pure: am I myself not a wave of icy air? With neither blood, nor lymph, nor flesh. Flowing down this long canal towards the pallor down there. To be nothing but coldness..."

He presents an existentialist's view of the black hole by saying that:

"... (it) is inhuman. Like a mineral. Like a triangle..."

I remember that, in an amusing article entitled "A theory of Ghosts" (*Physics Bulletin*, December, 1972), D. A. Wright tried using elementary ideas of wave mechanics to explain some "human experiences" of ghosts. It would be interesting to see if any of our black-hole theorists could explain this *petit rapport* of the black hole by Sartre!

ALBERT WONG

4/9/80

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Oppenheimer

My wife and I thank you sincerely for your excellent article in the April 1980 issue on the career of Robert Oppenheimer, who was a close friend of ours during the late 1940's, the formative period of atomic energy. We had met Oppenheimer when he was directing a series of technical lectures at the Cooper Union in New York. He had organized the lectures around various prominent scientists of the region. We met Bob one night in the green room of the hall, after the program, and found him a brilliant and cheerful person. His first greeting was to ask us if we could take him to the Pennsylvania Station to catch a last train. After this first encounter we made sure not to miss any of the lecture series, which he was kind enough to let me join toward the end. Many of the series were done by Oppie himself, others from Princeton and other nearby universities. Har-

vard's President Conant was there, and Oppie appointed me later as series' secretary. Bob had organized the whole series himself; he fully deserved the praise your article gave him. We had found in the first few minutes what a brilliant young man he was.

Bob Oppenheimer's portrait in the April issue is a corker, and we saw much of him as time went on. How many times we found him there at the hall, and again, later, at Princeton, smiling and vigorous, no-end knowledgeable and brimming with enthusiasm as he lit his inevitable pipe. On one occasion Oppie invited us to have lunch with him at the restaurant in Princeton's Institute of Advanced Study, of which he had taken over the administration. On this occasion we were highly impressed when Niels Bohr turned up with P.A.M. Dirac in tow; we kept carefully quiet. But the end of that day was loaded even more, for we intercepted and bowed to Einstein himself, climbing the hill outside.

I was privileged to meet Oppie again in Los Alamos, when he asked me to consult with him about an article I was doing on him in *Science Illustrated* entitled, "The Man in the Pork Pie Hat." I did several pieces on him later in other magazines. I doubt if any great man we science writers were privileged to know was so unfailingly kind and agreeable as "Oppie." In my whole writing career there was no personality among the celebrated of the atom, from Fermi on down, who gave us as much inspiration and understanding of the bewildering technical field, as did Robert Oppenheimer, and without being lofty, as some of the others occasionally were.

The PHYSICS TODAY piece brings back to us the charm of a great scientist, and the simplicity of his thought. Please accept our thanks for running your article about a man who may have been misunderstood but was forever charming.

DAVID and INDIA WOODBURY

5/1/80

Ogunquit, Maine

Energy conservation

I was disappointed that Marc Ross's article on energy conservation (February, page 24) stressed "technological fix" solutions rather than changes in lifestyle. It is certainly useful to produce more energy-efficient cars, patch up leaky houses and recycle aluminum cans, but it would lure us into a false complacency to maintain that this would be enough.

As an example, one might note that Americans have developed the peculiar habit of drinking flavored, carbonated water in disposable aluminum cans. We can certainly save some energy by