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letters

which are simple to the human mind.

JAMES M. DANIELS

University of Toronto

5/83

Toronto, Ontario, Canada

Boltzmann's tomb misplaced

The April issue (page 55) shows a photograph of Boltzmann's tomb. The caption reads that the tomb is in front of the University of Vienna.

I would like to point out that the photograph is that of Boltzmann's tomb in the Central Cemetery of Vienna at the second gate section. I visited the site on 26 June 1982. The structure in the background of the photograph is a church and not the University of Vienna. Note the inscription at the top of the tombstone (which is faint in the photograph) $S = k \log W$.

IBRAHIM ADAWI

University of Missouri

4/83

Rolla, Missouri

... the building ... looks to me like the chapel at the "Second Gate" of the Vienna Zentral-Friedhof (Central Cemetery), where Boltzmann is buried in the *Ehrengrab* (honor's tomb) section, close to Schubert, Beethoven and others of equal fame. Anyone liking Boltzmann to someone with "a plodding and unoriginal intellect" needs to restudy the history of physics. If the anti-hero of McCormack's novel was anything like the character described in the review, there are few parallels between his life and that of Boltzmann that a well-informed historian of physics would draw. Boltzmann did not live long enough to digest relativity and hardly long enough to take note of quantum theory. Frankly, to draw parallels between him and the fictitious Victor Jacob is an exercise in ignorance and poor taste.

HEINRICH K. EICHORN

University of Florida

5/83

Gainesville, Florida

Physics in Texas

Recalling a tradition of the union of mind and body that signals a resurgence of a classical ideal—a return to the greco-roman principle hitherto honored largely in the breach by such symbols as *Mens et Manus* of MIT—we noted recently with pleasure, in your list of most improved physics departments, the University of Houston and North Carolina State (recent rivals in the NCAA finals for those who, sadly, have never witnessed the non-Newtonian glide of Clyde Drexler).

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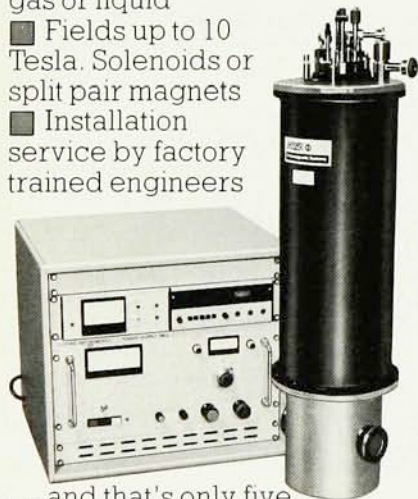
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letters

that while the University of Texas is indeed at Austin (and has, parenthetically, a simply terrible basketball team), the University of Houston is not the Houston branch of UT. UH and Texas A&M are, as is UT, funded through the State of Texas but are otherwise independent. The Aggies would not, for example, enjoy the description "University of Texas at College Station." We understand the Northeastern proclivity to view our Texas Regents as a sort of collective (monolithic) Petro-daddy; but we must point out that while the universities here are healthy, they are autonomous. Our improvement in physics is therefore independent of Austin's and reflects a significant growth in our own university and in the support for science which it continues to provide.

ED V. HUNGERFORD
SIMON C. MOSS
LOWELL T. WOOD
*University of Houston
Houston, Texas*

5/83

Talking to the world

To thirty minutes of freshman physics:

- add a piece of portable apparatus such as a laser, or an electrostatic generator, or a dewar of liquid nitrogen
- add a few "feelies" to pass around, such as a microprocessor chip, or some single-crystal tin whiskers, or a model of a communications satellite
- thin with a few historical notes (see the encyclopedia), and for spice
- add some biographical anecdotes or eccentricities, and finally
- sprinkle liberally with humor.

Serve briskly over a fifty minute period on any occasion. Adequate for ten to one hundred. Aging with practice will improve the bouquet.

This recipe is the essence of successful communication with any subset of nonfreshmen-physics students—that is, with nearly the whole world!

At a time of national concern about the declining quality of education in general, and the declining quality of science teachers specifically, I think it is appropriate to call on the professional societies and their membership to offer support. The declining interest in the physical sciences as an academic major and professional occupation would seem to demand such assistance. I have in mind a new kind of society activity. While not new on an individual basis, I think it would be a new endeavor for a professional society. The basic idea is to encourage scientists to talk to the world about their own technical interests, about their experiences as scientists, about current developments in technology and basic

research, about technology in the news, and about the history and the future of science. Many forums await the "technical" speaker. Secondary schools, high schools, colleges (yes), girl scouts and boy scouts, community-service organizations, churches, clubs, PTAs and many others encounter frequent situations where they would welcome a scientist as a speaker.

Scientists speaking about their own profession have assumed credibility. They have instant leverage with their audiences. If only they can converse in pseudo-lay language and shed some understanding on a small area otherwise off-limits to the nontechnical world, they will earn the respect and gratitude of their audiences. Here children in their formative years can be inspired, and parents of school children can be influenced. The image of science and scientists can be improved only by scientists. It has been left too long to the nontechnical media.

The role for professional societies could be to provide assistance in preparing talks on science and technology for the nontechnical audience. Topical outlines, demonstration kits, historical information, and biographical sketches could be prepared for society members to assist and encourage their participation as speakers. A means could be found for sharing experiences relative to what works and what does not work with nontechnical audiences.

The need is clear. Can you image twelve years of education without a glimpse of the gleam of science? The problem is to encourage busy scientists to leave their laboratories briefly and discuss, without the use of integral signs, why there are two rainbows—perhaps someone in the audience had not noticed. Professional societies have the talent, and I think they need to assist in sharing it.

ED SICKAFUS
*Ford Motor Company
Dearborn, Michigan*

6/83

Once more an education crisis

Upon reading the editorial (page 128) in June on the crisis in education, one cannot help feeling (however much one may sympathize with what the editorial suggests): "Here we go again!" The tone is very much like that which was heard about 1958, when, as it was believed, an earlier crisis in education in science (or an earlier phase of the same crisis?) appeared.

It is common experience that, when the panic button is pressed, people react by doing the wrong thing. In retrospect, I suggest, we can see that people's responses to the crisis twenty-five years ago, however well-intended,