

that university overheads are less than half of those in industry. Government agencies, particularly the National Science Foundation, try very hard with minimal resources. Otherwise, I think he is simply reinforcing my point.

Ernest Bauer seems to have caught the Horgan infection. Of course the questions that were current when we were in graduate school have been mostly answered—as have, in my case, the ones after those. But science keeps throwing up new questions, and it takes imagination to see they *are* questions. I'm also a little tired of those British classics students—they got the UK into two world wars, messed up the Balkans permanently, and left the British people with four or five different kinds of electric light plugs. At least physicists might have done better with the light plugs. Physics—unlike the classics—is a good education for such jobs as management consulting, and I don't want to discourage those who take naturally to such careers. However, I deplore leaving only the least-imaginative individuals in physics to teach future generations.

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Fubini and Salam Inspired Plans for Mideast Synchrotron

The lead story of your "Physics Community" section in the August issue (page 54) is Toni Feder's account of new and hope-filled initiatives for peace in the Middle East, based on scientific collaboration. Specifically, she tells of the plan for the region to be given a decommissioned German synchrotron light source that would become the centerpiece of a major international research facility—site still to be determined—that would function as a center where scientists from previously hostile countries would interact, much as CERN brought together former enemies after World War II.

Although Feder does discuss the vital role played in this plan by the Middle East Science Collaboration (MESC), as well as by various individuals, she makes no mention of Sergio Fubini, who conceived the first Sinai Meeting on Physics, held in Dahab, Egypt, in November 1995 (see *PHYSICS TODAY*, February 1996, page 11), which led directly to the

founding of MESC in 1997. Fubini has remained an active and essential participant in MESC and its push for more science in the Middle East, as reflected in what happened at the Paris meeting hosted by the United Nations Educational, Scientific and Cultural Organization last summer. UNESCO's director general Federico Mayor stated, "I wish to pay tribute to a group of scientists from the Middle East and Europe who have worked together for five years now in order to promote scientific cooperation in the Middle East and the Mediterranean region. . . . We are fortunate to have with us today the person who initiated this movement of scientists and did more than anyone else to make it the success it now is. He is Professor Sergio Fubini from the University of Turin and CERN."

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One of the key individuals who laid the groundwork for what may turn out to be the Middle East's first synchrotron light source and a major international scientific research center was Abdus Salam, a cowinner of the 1979 Nobel Prize in Physics, the founder and long-time director of the International Centre for Theoretical Physics (recently renamed in his honor), and "a humanitarian who devoted much of his life to uplifting the status of science and technology in the third world" (*PHYSICS TODAY*, August 1997, page 75).

As noted in *PT*, Salam, born in what was then part of British-ruled India and is now Pakistan, "dreamed of creating 20 international centers like the ICTP, spread throughout the world." As part of that vision, he actively promoted the idea of advancing the cause of science and technology in the Middle East, not only by having researchers from the region work with their colleagues in the developed world, but also by having the region develop its own facilities—including a synchrotron laboratory.

In May 1983, at the Symposium on the Future Outlook of the Arabian Gulf University held in Bahrain, Salam delivered a paper entitled "The Gulf University and Science in the Arab-Islamic Commonwealth," in which he reminded his listeners that "We forget that an accelerator like the one at CERN develops sophisticated modern technology at its furthest limit. I am not advocating that we should build a CERN for Islamic countries. However, I cannot but feel

envious that a relatively poor country like Greece has joined CERN, paying a subscription according to the standard GNP formula. I cannot rejoice that Turkey, or the Gulf countries, or Iran, or Pakistan seem to show no ambition to join this fount of science and get their men catapulted into the forefront of the latest technological expertise. Working with CERN accelerators brings at the least this reward to a nation, as Greece has had the perception to realise. . . ." ¹

He then went on to make the following points: "I have mentioned an international laboratory in material sciences for Bahrain, with specialisation in microelectronics and modern electronic communications, including space satellite communication, to help also with the banking communications needed at Bahrain. Such a laboratory was in fact proposed for the University of Jeddah. The idea was to emphasise science transfer in addition to technology transfer and to create international laboratories in the fields of materials sciences, including surface physics and a laboratory with a synchrotron radiation light source. The facilities created would have been of the highest possible international order; the laboratories would have been opened to teams of international researchers, who would congregate and work at Jeddah, just as they congregate now at the great laboratories in Hamburg, Geneva or Paris. . . ." ²

Perhaps, in memory of Salam, Jeddah (Jidda) in Saudi Arabia or a suitable location in Bahrain should be added to the list of possible sites for the relocated German synchrotron.

References

1. A. Salam, in *Renaissance of Sciences in Islamic Countries—Muhammad Abdus Salam*, H. R. Dalafi, M. H. A. Hassan, eds., World Scientific, Singapore (1994), p. 45.
2. Salam, p. 53.

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Correction

November 1999, page 83—In Piotr Wasiolek's letter, a minus sign was omitted from the conversion sequence for the average indoor level of radon. The correct sequence is $1.3 \text{ pCi/L} = 1.3 \times 10^{-12} \text{ Ci/L} = 0.048 \text{ Bq/L} = 0.048 \text{ Bq/(0.001 m}^3\text{)} = 48 \text{ Bq/m}^3$.

December 1999, page 59—Charles Townes's book is \$29.95, not \$49.95. ■