

References

1. See, for example, I. G. Barbour, *Religion and Science: Historical and Contemporary Issues*, HarperSanFrancisco, San Francisco, Calif. (1997); N. Murphy, G. F. R. Ellis, *On the Moral Nature of the Universe: Theology, Cosmology, and Ethics*, Fortress Press, Minneapolis, Minn. (1996); J. Polkinghorne, *Science and Providence: God's Interaction with the World*, New Science Library, Boston, (1989).
2. D. Bonhoeffer, *Letters and Papers from Prison*, enlarged ed., Eberhard Bethge, ed., Macmillan, New York (1972), p. 311.
3. E. Messenger, *Evolution and Theology*, Macmillan, New York (1932).

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Sexism Still an Obstacle for Women Scientists

We read with interest and empathy about the first International Conference on Women in Physics, held in Paris in March (PHYSICS TODAY, May 2002, page 24). Many of the points raised in the article coincided with those expressed by participants at a December 1997 meeting held in Bangkok, Thailand, and sponsored by the World Meteorological Organization, on the participation of women in meteorology and hydrology.¹ Like physics, these professions suffer from a gross underrepresentation of women. A 1996 survey of WMO member nations found that, on average, only 1 in 5 meteorologists and hydrologists in the responding nations was a woman.^{1,2} In the US, the figure was only about 1 in 10.³

Both meetings expressed common themes:

- the similar challenges facing women scientists from different countries
- the need for culturally sensitive solutions to address the underrepresentation of women in science
- the larger proportion of younger women students and professionals compared with older professionals, which may indicate either a "leaky pipeline" or a trend toward greater gender balance
- the difficulty of breaking through the glass ceiling, as shown by the

relatively larger number of women at junior levels than in senior positions, as compared with men

► the cumulative negative effect of numerous minor obstacles in women's career paths

► the need to include men in working toward increasing the participation of women in our profession.

Meeting participants recognized that progress will depend on the attitudes and actions of individuals, national institutions, and international agencies. Therefore, separate but complementary sets of recommendations were directed toward women meteorologists and hydrologists, national meteorological and hydrological services, and the WMO. The recommendations focused on improving career opportunities and the work environment and on increasing the participation of women in the activities of the WMO, including its secretariat in Geneva, Switzerland.

The WMO is currently planning a second Conference on Women in Meteorology for 24–27 March 2003, at which participants will examine what progress, if any, has been made in the past five years. The conference will focus on increasing the participation of women in the organization's activities and on ways to accelerate and track progress on this issue. We look forward to sharing our experiences with the broader physics community.

References

1. WMO reports are available at <http://www.wmo.ch>.
2. D. J. Gaffen, D. B. Franklin, E. W. Friday Jr, E. Gorre-Dale, H. Kootval, K. E. Weston, *Bull. Am. Meteorol. Soc.* **79**, 861 (1998).
3. D. J. Gaffen, E. W. Friday Jr, K. E. Weston, D. B. Franklin, *Bull. Am. Meteorol. Soc.* **78**, 2241 (1997).

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I find it interesting that the article on advanced physics in high schools and the article on women in physics appeared in the same issue. If my experience is any indication, the lack of women in physics is linked to the problems female students encounter in high school.

My high school offered AP calculus. I started high school in the honors math program. But I didn't continue, in part because one of my teachers would have been a man well-known for sleeping with female students. When he was finally arrested for sexual misconduct with a minor, I knew I had made the correct decision. What message does it send to young women when a teacher sleeps with students, the whole school knows, and no one does anything until a student reports it more than a decade later?

Moreover, when I told my high-school guidance counselor that I wanted to take physics, she said I shouldn't, because physics is hard. It angered me at the time, but I was going to be a music major then. The same woman advised my brother, a much worse student than I, to major in engineering in college. Such early experiences with sexism in the sciences are very discouraging to young girls. It is important to rein in sexist teachers in primary and secondary education.

Despite my high-school experiences, I finally discovered that my true calling is physics, and I'm in my fourth year at Colorado State University. I know I've had it much easier than women even a generation before me, but sexism is not gone yet. It is still tacitly accepted in higher education—especially in the sciences—even though equality may receive lip service.

An acquaintance of mine went to her organic chemistry teacher for help and was told, "Sometimes men just get it better than women." I overheard another faculty member making a joke about how he wouldn't help one of his male students unless that student brought in his attractive girlfriend. In light of the many hardships women have had to endure in the past, comments like that just aren't funny.

Discrimination against women still exists—it's just more subtle than it used to be. Attracting more women to physics will require confronting the latent sexism that remains in the field.

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Context Adds Value to Ancient Astronomy Records

Having read John Steele's review of our *East Asian Archaeoastronomy* in the December 2001