

# SOLAR ENERGY IN AMERICA

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genuine fossil, he knowingly published a most misleading account, allied himself with the forger, and silently watched the futile controversy for 25 years. These are serious charges to bring against a person who has been dead for more than 40 years. Surely Sollas should not be blamed unless there is more evidence than that he did not like Smith Woodward, had access to fossils, and was not pictured in a group of scientists studying Piltdown. I believe that what Sollas wrote is a far better guide to what he thought than the recently disclosed suspicions of a person who did not voice them until the critical actors in the drama had been dead for many, many years.

S. L. WASHBURN

Department of Anthropology,  
University of California, Berkeley 94720

## References and Notes

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2. W. M. Krogman, in *Biosocial Perspectives*, S. L. Washburn and E. R. McCown, Eds. (Benjamin/Cummings, Menlo Park, Calif., 1978), pp. 239-252.
3. H. F. Osborn, *Man Rises to Parnassus* (Princeton Univ. Press, Princeton, N.J., 1927). A very clear account of the Piltdown discoveries as they appeared to scientists in the 1920's is given on pp. 45-65. Osborn's doubts were removed by Piltdown 2.
4. E. A. Hooton, *Up From the Ape* (Macmillan, New York, 1931). Piltdown 2 "settled the case" for the association of the skull and jaw (p. 314).
5. A. Smith Woodward, *The Earliest Englishman* (Watts, London, 1948).
6. A. Keith, *The Antiquity of Man* (Lippincott, Philadelphia, 1929).
7. ———, *New Discoveries Relating to the Antiquity of Man* (Williams and Norgate, London, 1931).
8. F. Weidenreich, *Apes, Giants, and Man* (Univ. of Chicago Press, Chicago, 1946). Weidenreich's chart (p. 30) clearly shows a wholly different arrangement of the fossils from that in Keith (7, p. 293).
9. E. A. Hooton, *Up From the Ape* (Macmillan, New York, rev. ed., 1946). Figure 61 on p. 413 shows the central position of *Eoanthropus*.
10. W. J. Sollas, *Ancient Hunters* (Macmillan, New York, ed. 2, 1915).
11. L. B. Halstead, *Nature (London)* **276**, 11 (1978).

## The Humanities and Science

I question Charles A. Lave's notion (Letters, 19 Jan., p. 224) of the humanists who "were the first to define 'education' long ago." As I understand the humanists of Western history, they did not limit themselves to arts and letters but sought to understand and codify all possible human experience and knowledge. Da Vinci and Newton are only two of the most obvious examples. These early humanists even understood how the drive to acquire knowledge of all things can lead to the illusion that we can control all things, as the enduring power of the legend of Faust shows us.

I strongly agree with Lave that we in the humanities need to know the issues debated in the sciences and have our

educated say on those issues—that is why I read *Science*. But the strong insistence that the scientists understand the issues in the humanities is based on a simple matter of scale. If I write a poem, it is unlikely to change the world for better or worse, regardless of the number of people who read it. But those in the physical and mechanical sciences have a great potential for changing the lives of a very great number of us, whether we choose to cooperate with them or not. Many lives have been saved by the invention and use of the Salk vaccine; many lives have been lost by the invention and use of nuclear weapons. Moral choices must always be made.

JAMES F. SCHAEFER, JR.

1707 Stevens Avenue South,  
Minneapolis, Minnesota 55403

Lave complains of anti-science discrimination by educational institutions, and by humanities departments in particular. I do not pretend to speak for institutions, but Lave and other readers might be interested to know that in the humanities few new topics have seemed more attractive in the last decade than science. Science's epistemology, ethics, social structure, psychology, rhetoric, and relations to current policy issues have been taken up by a broad spectrum of teacher-researchers in humanities (and social science) departments, including English departments like my own. Half a dozen new publications (for example, *Science, Technology & Human Values*) have appeared to display the fruits of this activity.

Also—and this is not untypical—members of my department are teaching advanced writing courses that take for their content the current debates over nuclear power and recombinant DNA research, two topics Lave implies are hopelessly beyond the range of humanities departments.

JOHN WOODCOCK

Department of English,  
Indiana University, Bloomington 47401

## Reflections

There seems to be some confusion in the picture caption on page 15 of the 12 January issue (News and Comment) about the 13-inch *reflecting* telescope at Vassar. The ladies may be reflecting, but I am quite sure the telescope is refracting.

PETER HELMERS

630 Merrick Avenue,  
Detroit, Michigan 48202