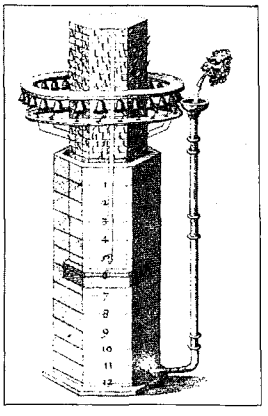
Science & Technology

DESCARTES' DREAM: The World According to Mathematics
by Philip J. Davis
and Reuben Hersh
Harcourt, 1986
321 pp. $19.95



Mathematicians have never been popular, partly because tests in their subject are so frequently used as a social filter, a means, for example, of selecting candidates for business school. But most business courses require no knowledge of calculus, and ease with the quadratic formula should be no more a general indicator of future success than knowledge of religion or art. Conclusion: Use math as a filter only "for posts for which it is demonstrably required."

The makers of this argument, Davis and Hersh, are themselves mathematicians at, respectively, Brown and the University of New Mexico. Authors of the award-winning *Mathematical Experience* (1981), they here attempt to detail the various ways that mathematics enters into our everyday lives. Among their topics: the threat of digit overload, as in lengthening zip codes; computer art, a field whose future lies not in static pictures but in "the dynamic, the animated, the interactive" forms; and the meaning of living in a "stochastic" world, where probability explains everything from genetics and physics to voting behavior and actuarial tables. Elsewhere, among the more mind-stretching philosophical essays, Davis and Hersh explain how, by and large, mathematicians have unwisely ignored the role of time (personal "lived" time) in mathematical thinking.

Gradually, a theme emerges in this book: the authors' conviction that people in contemporary society too credulously agree that "the way to arrive at objectivity in the real world is to travel the mathematical road." It is a notion that Hersh and Davis hope to lay to rest.

THE BLIND WATCHMAKER: Why the Evidence of Evolution Reveals a Universe without Design
by Richard Dawkins
Norton, 1986
332 pp. $18.95

Playwright George Bernard Shaw lamented that once he understood the "whole significance" of Charles Darwin's theory of evolution, he was struck by its "hideous fatalism" and "damnable reduction of beauty and intelligence." Dawkins, an Oxford zoologist, counters this all-too-common response. Properly understood, he argues, evolution is highly selective and anything but random.

The watchmaker image comes from 18th-century theologian William Paley, who thought that the complexity of nature argued the existence of a