

SCIENCE

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EDITORIAL

Punctuated Equilibrium in Scientific Publishing

To many scientists, it was merely a local phenomenon: Dan Koshland stepped down at *Science*; Floyd Bloom took over. John Maddox announced retirement at *Nature*; Phil Campbell was named to succeed him. Editorships of journals change hands. That's life.

But these shifts at the top of the masthead will alter journals that affect a very large number of scientists. And they are only part of a more imposing pattern. Over the past year, eight major scientific publications spanning the spectrum of science and engineering have changed editors. Together, these publications reach about 2 million subscribers and publish papers by 15,000 scientists annually. So it will matter that many of the editors who have stepped down, like Maddox and Koshland, have been institutions in the profession.

Alan Ternes spent over 25 years running *Natural History*. Over two decades, Don Christiansen turned a dry organ of the Institute of Electrical and Electronics Engineers, *IEEE Spectrum*, into a publication that competed with *Scientific American* (SA). Gloria Lubkin led *Physics Today* for 15 years. Mike Heylin was with *Chemical & Engineering News* (C&E News) for more than three decades. Robin Fox spent a quarter of a century at *The Lancet*. And at SA, Jonathan Piel's departure ended a family dynasty that lasted nearly half a century. Scientific publishing has experienced an extinction event!

It is, of course, too early to see the consequences for readers and authors. But it is clear that a generational change is taking place. In some cases, the differences may seem slight: Bruce Stutz at *Natural History* is 20 years younger than Alan Ternes but came from *Audubon*. At *IEEE Spectrum* and *The Lancet*, the new leaders are professional editors as the old ones were. But at *The Lancet*, the age change is marked: Richard Horton, doctor and journalist of 5 years, is only 32.

Age—and experience—are also issues at SA. Jonathan Piel spent a decade mildly modernizing a publication whose ads and readership were sharply down when he inherited it. Over Piel's shoulder was the long shadow of legendary editor Dennis Flanagan, who, with Piel's father Gerald, had bought the magazine in 1948. In 1986, Flanagan and the elder Piel retired, selling SA to a German publishing conglomerate. Ten years later, the Germans removed the last vestige of familial control—a man in his mid-50s with decades of experience at SA. Installed was John Rennie, bright, confident, 35. Experience in the big leagues of scientific publishing: 5 years. Experience managing people: next to none.

But Horton and Rennie are old hands at scientific publishing compared with the new leader at *Physics Today*. The American Institute of Physics recently installed a new publisher who elevated long-time editor Lubkin to a nonmanagerial post. He then appointed Stephen Benka, 42, who had worked for the U.S. Post Office for 10 years before getting a mid-life Ph.D. in solar physics at the University of North Carolina. After 5 years as a post-doc and researcher, Benka came to *Physics Today* where he did routine writing and editing for a year before his promotion. Robert Park, a famously crusty observer of the physics community, quipped in his electronic newsletter that the new version of *Physics Today* “should be lively; Benka . . . has been editing obituaries.”

C&E News also has needed enlivening. Outgoing editor Heylin viewed his charge as chemistry's *Time* or *Newsweek*; his challenge was to maintain some independence from the American Chemical Society (ACS), which owns C&E News, and from the chemical companies entwined with the ACS. Now comes Madeleine Jacobs, the magazine's managing editor since 1993. Jacobs wants to reinvigorate the publication. Her qualifications? She began as a chemist, shifted to journalism, then spent 15 years as a Smithsonian public affairs officer. Returning to journalism after years in public relations is, to professional editors, tantamount to a violation of the Second Law of Thermodynamics. But to C&E News readers, the important question is: Will Jacobs enrich the newsweekly's journalistic traditions as she enlivens it, or will her public affairs experience make it more of a traditional house organ?

The world of scientific publishing has been shaken by a set of events that, although entirely coincidental, cannot help but affect the scientific and engineering community. Whatever their past faults, all eight publications play a vital role in scientific information exchange. The scientific community should carefully watch to see whether this new breed invigorates their publications or, by altering their editorial philosophy or practice, endangers them.

Ellis Rubinstein