

Current Comments

Science 80 Adds to the Booming Popularization of Science

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Since I first wrote about the lack of science news in the mass media a year and a half ago,¹ the situation has improved significantly. *Omni*, which I discussed before,² has prospered. So have established popular science magazines like *Science News*.³ And the amount of science on TV has also increased substantially, as I reported recently.⁴

The latest newcomer to the science media scene is *Science 80*, a popular magazine published by the American Association for the Advancement of Science (AAAS). *Science 80* premiered in December 1979 and has published four bi-monthly issues to date. Beginning in November, it will appear monthly. Sold by subscription only, *Science 80* already has over 400,000 subscribers. Subscriptions cost \$12 per year, and can be ordered by writing: P. O. Box 10790, Des Moines, Iowa 50340. The publishers have no plans for newsstand sales.

According to the publishers, the purpose of *Science 80* is to "bridge the distance between science and citizen." The magazine, a popular counterpart to the AAAS's prestigious journal *Science*, is geared to a "wider, more general public," according to William D. Carey, executive officer of the AAAS.⁵

This is the first venture by the non-profit AAAS into the mass media. Like *Omni* and other new science magazines, *Science 80* is aimed toward an intelligent, educated audience. Allen Ham-

mond, who previously developed and edited the "Research News" section of *Science*, is the editor-in-chief of *Science 80*. Hammond explains that *Science 80* readers are college-educated, but primarily not in scientific disciplines. A survey recently conducted for *Science 80* by an independent company confirmed Hammond's views. It found that 88% of *Science 80* readers are college-educated, about half beyond the bachelor level. Readers' median age is 38, with about half between the ages of 25 and 45. Twenty percent of the readers are employed in education, 15% in industry, 8% in health professions, and 10% are students. In addition, 5% are scientists, 5% are in government, and 5% are retired. (The other areas are too small to mention here.) The editors expect to attract more people from scientific fields, but are pleased with the results so far. "The overwhelming impression," says Hammond, "is that it is a sophisticated audience, but one that is not sophisticated about science—which is exactly what we were aiming for."⁶ General Manager Owen J. Lipstein adds that *Science 80* provides a way for non-scientific people to gain access to a world that, until now, was closed to them.⁷

The editors of *Science 80* feel that what they are doing differs significantly from most kinds of science reporting. Until now, says Hammond, most science news was just a reporting of facts.

But with *Science 80*, he continues, "We are trying to deal with science as a part of our culture, and make the cultural context clear."⁶ In this way *Science 80* is fulfilling one of the AAAS's major goals—"to contribute to public understanding of science and technology."⁵ In addition, the AAAS tentatively plans similar ventures into TV and radio.⁸ *Science 80* profits may contribute to these efforts.⁶

An issue of *Science 80* is between 95-112 pages, with six to eight feature articles and seven to nine departments. Editorial material fills about 80 pages; the rest of the magazine is largely advertisements. A full-page color ad costs about \$7,200, while a black and white ad runs about \$6,200.

Each issue begins with an editorial comment, called "Inside," by Hammond. In it, he offers some introductory remarks to the issue's contents. In the first issue, he commented on his goals for *Science 80*: "We hope that this new magazine will explore and in a modest way enrich the interconnections between the ferment that is science and the larger world we live in. And we intend that *Science 80* will be a channel of thought and communication open on both ends."⁹

"Inside" is followed by the department "Currents," three to four pages of short pieces of scientific news. "Currents" features have included: a study which attempted to find out why children's minds seem more flexible than adults,¹⁰ the latest sunspot observations,¹¹ and a computer-controlled house in Arizona¹² (highly reminiscent of the house in Ray Bradbury's 1950 story "August 2026—There Will Come Soft Rains"¹³).

A general interest section, written mostly by freelancers, is called "Cross Currents." These pieces are slightly longer and more in-depth than "Currents." "Cross Currents" articles have

covered such topics as animal behavior prior to earthquakes;¹⁴ the politics of naming new elements;¹⁵ the regeneration, in humans, of fingertips;¹⁶ and the problems of detecting illegal drugs in racehorses.¹⁷

Well-known authors Carl Sagan and Lewis Thomas periodically write columns for *Science 80*. Victor McElheney, formerly of *Science* and the *New York Times*, now director of the Banbury Center, Cold Spring Harbor Laboratory, and Paul Bohannon, University of California, Santa Barbara, also write regular columns. All four appear under the heading "Observer." Like the rest of the magazine, topics discussed in "Observer" columns cover a wide range of subjects. Thomas, for example, has written on the habits of the mimosa girdler beetle,¹⁸ Bohannon on the rhythm and pace of cities,¹⁹ McElheney on the problems of advanced technology,²⁰ and Sagan on the decline of the US space program.²¹ Bohannon's piece on social rhythm is especially relevant to my recent essay on jet lag.²² Bohannon noted, "With each individual operating on slightly different rhythmic patterns, but within the range prescribed by the culture, rhythm and pace are important dimensions of successful social relationships. When our rhythms mesh with those of people around us, we scarcely notice them. When they do not, we are acutely aware of being out of step...." Yet, he adds, "As far as I can find, no social scientist has focused in detail on the pace or interactions between people of different ages or from different cultures...."¹⁹

Other departments include "Letters," in-depth reviews of science books and TV programs, and "Sports." The "Sports" section concentrates on scientific aspects of various activities, such as the aerodynamics of hang-gliding,²³ and the ballistics of speed skiing.²⁴ An unusual and interesting feature, called

"Expeditions," describes the processes involved in different types of science expeditions. After explaining what gold is, and how it is deposited, one "Expedition" told readers how to pan for it, and even, assuming you find some, where to sell it.²⁵ Another described the work involved in finding and recovering fossilized bones.²⁶

A section we at ISI® particularly like is entitled, appropriately, "Resources." It's just that—the resources, or reference citations, for the magazine's articles. While the first issue contained only about one reference per article, the "Resources" section has grown rapidly. The March/April issue averaged five or six full references per article. References are also included in "Currents," "Cross Currents," "Sports," and "Expeditions." This makes it easy for the reader to pursue subjects in greater depth.

The bulk of the magazine consists of feature articles. Written largely by freelancers (although some are written by *Science 80* staff writer Michael Gold), the articles span an impressive list of topics. The March/April issue, for example, contained a piece detailing the debate over when the first Americans appeared on this continent. Theories abound on the subject, and estimates range from 11,500 to 100,000 years ago as the date America was first settled.²⁷

In contrast, another article in the same issue focuses on the pictures of Mars taken by Viking Lander I in the summer of 1976. Beautiful color photographs of the Martian sunrise and sunset accompany the article.²⁸

Other articles discuss the disastrous Pacific current El Niño,²⁹ excavations of an original Olympic site,³⁰ the work of Sigmund Freud,³¹ the chemistry of fire,³² woolly mammoths,³³ brain chemistry,³⁴ tar sand,³⁵ the predicted effects of a nuclear war,³⁶ the physiological origins of dreaming,³⁷ radio wave pollu-

tion,³⁸ and a remarkable ancient American sun calendar called the Anasazi Sun Dagger.³⁹

Each issue so far has also contained a lengthy profile of a noted scientist, or science-related person. Highlighted to date have been Robert Wilson, the physicist who directed construction of the Fermi National Laboratory's giant particle accelerator in Illinois;⁴⁰ sociobiologist Robert Trivers;⁴¹ Gerald Wasserberg, Cal Tech, who directs the Laboratory of Geological Sciences where scientists study moon rocks, star dust, and other geologic debris;⁴² and, in a lighter vein, science cartoonist Sidney Harris.⁴³ You may recognize Harris as the weekly cartoonist in *Current Contents*® (*CC*®). Harris' cartoons also appear in *Science 80*.

So far, *Science 80* seems to be a valuable contribution to the science media. The editorial content is varied, informative, and well-written. The magazine itself is attractive—high quality paper with full-color illustrations. The contents page provides not only titles and authors, but also concise descriptions of the articles presented.

The immediate success of *Science 80* proves that there is a large potential audience among the educated public for science. But *Science 80* and the other popular science magazines, while successful by financial or other standards, still only reach a small percentage of the population. The science writing which appears in newspapers, along with TV coverage, still has much greater and immediate public impact, as I discussed with respect to TMI.⁴⁴ However, science magazines do significantly affect opinion makers and leaders in our society.

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