

# THE EDITORS LOOK BACK

**P**HYSICS TODAY, the flagship magazine of the American Institute of Physics (AIP), turns 50 this month. Over the decades, as the magazine's staff has grown in size from three to seventeen, its coverage of history, international and political news has also grown, and the staff still finds itself stretching to cover both the shifting and expanding field of physics and the physics community. And, as recent chats with the

six past and present editors reveal, many of the rewards and challenges of working on PHYSICS TODAY have remained steady through the years.

Prior to the magazine's founding soon after World War II, "physics got a lot of publicity as a result of radar and the bomb," recalls Frederick Seitz, who served on an AIP advisory committee at the time. "And the committee reached the conclusion that physicists should have [their own news-oriented magazine]." The committee first came up with the name "Physics Now," continues Seitz. "I remember that Lee DuBridge [who was also on the advisory committee] said, 'That's a terrible idea,' and suggested 'Physics Today.'"

## "Got the baby going"

Before he became the magazine's founding editor, David Katcher had been a technical editor, running the Naval Ordnance Laboratory's technical report section. It was on a visit by Katcher back to NOL, after having served in the Army, that Gordon Sabine casually said to him "Hey, AIP is looking for someone like you," recalls Katcher, who had majored in physics at the University of Wisconsin, and then dabbled in English lit-

erature in graduate school. "I understood the language of the physicist, and I understood some of the difficulties that people in the humanities had in understanding what [scientists] had to say. So what I did was become a bridge," says Katcher.

Sitting in the living room of his home in Chevy Chase, Maryland, Katcher, now 83, readily recalls his three years at PHYSICS TODAY. There was disagreement at the beginning over how technical the magazine should be, says Katcher, who was among those who favored making it as accessible as possible to the "intelligent layman." After the US had dropped the atom bomb, he says, "we felt that anything that important should not be reserved for an elite." Others wanted more technically sophisticated coverage. When no consensus was reached, AIP's head, Henry Barton, "gave me my head, and for about two years, I did what I wanted. . . . I got the baby going." At the start, Katcher did everything—from creating the overall plan for the magazine to soliciting and editing articles, to proofreading and handling production.

"I had made a rule that there would be no formulas in PHYSICS



**BRIDGING 50 YEARS:** PHYSICS TODAY's founding editor, David Katcher, flanked by editorial director Gloria Lubkin and the current editor, Stephen Benka.

**MARC BRODSKY** TODAY, because the sight of one frightens people," says Katcher. He even canceled papers whose authors insisted on using equations. But his rule didn't last long. "George Gamow did a story called 'Any Physics Tomorrow?' and there were a couple of formulas that were absolutely necessary, so what I did was to have the artist sprinkle them all over the margins. I skirted the rule." Eventually,

the rule was abandoned.

"I used to get these abstracts from AIP's journals, some of them very technical, and I would try to simplify them," continues Katcher. As an example, he tells of the time he replaced the phrase "exophthalmic lenses for the correction of refractive errors of the eye" with "glasses." "The author was furious, because he felt the substitution was ambiguous. We compromised, by changing the word to 'eye-glasses.'"

While editor, Katcher got a letter from Albert Einstein. "It said 'yes' and 'no,' and he had obviously typed it with his own two fingers. The yes was permission to use a photograph of him. And the no was in response to a request that he write something."

Indeed, getting good articles was—and remains—tough. It took about thirty ideas to produce one article, recalls Katcher. "Of the thirty, only ten would pan out provisionally. Of those, only three would materialize, and of those three, only one would be any good. It was a lot of work and scouring around. But you learned about the field. You learned what people are interested in."

Despite such hassles, says Katcher, "I would never print a word



that wasn't approved by the author. No other journalist I knew would ever think of having his copy so checked." Today, the magazine still adheres to Katcher's unusual policy of showing copy to authors and sources prior to publication.

The magazine has always worked on a tight budget. Nowadays, AIP's ten member societies pass on to PHYSICS TODAY \$2.25 from the annual dues they collect from each of their members. At the start, however, people subscribed individually, and the magazine was supposed to break even after three years. Despite about an 80% renewal rate, it was running about \$5000 over budget, says Katcher. "People [at AIP] began to suggest things like varying the cover stock, changing this, changing that. And I didn't think to go along with that, so I quit [in 1950]."

From PHYSICS TODAY, Katcher went to Johns Hopkins University, where he wrote reports for the US Army's Operations Research Office. He later got involved in environmental issues, and worked for many years in science policy. He retired in 1980. His last job was as a special assistant to an undersecretary of state during the Carter Administration.

## An editor's editor

Robert R. Davis, who had joined PHYSICS TODAY in January 1949, was left holding the reins when Katcher quit. "I was terrified," he says. He ended up staying 15 more years.

Davis had come to the magazine recommended by J. Robert Oppenheimer, whom he knew from working in the theoretical physics division of the Manhattan Project in Los Alamos, and from his postwar stint as editor of the lab's series of technical reports. Davis says he learned physics "by osmosis," having majored in fine arts at the Berkeley campus of the University of California, and then having worked in Berkeley's Radiation Laboratory calculating the feasibility of a nuclear bomb.

During Davis's first few years as editor of PHYSICS TODAY, there was so little money that "it was a real struggle just to keep the magazine alive," Davis recounts, and he and his wife, Regula, were the backbone of the skeleton staff. To cut costs, the cover stock was indeed downgraded. It took about a decade, says Davis, for the magazine to reach the break-even

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ROBERT R. DAVIS

ample, in the 1950s, he says, "readers attacked the magazine for having taken a position [on McCarthyism]. But it wasn't really a position. It was simply a regurgitation of what had happened at hearings. But people make of it what they will. It seemed to me that [Senator Joseph] McCarthy was constantly cutting his own throat—and I was perfectly willing to help."

Reminded of a 1955 gaffe now legendary at the magazine, Davis says, "Einstein's missing obit! One of those unredeemable disasters!" When he didn't find the right person to write it, "time sped by, other things got in the way, and in the end nothing got done. . . . The past is unforgiving."

Book reviews, on the other hand, were a point of pride for Davis. "We found a few authors who did a magnificent job," he says. One of them was Philip Morrison, who did "a series of marvelous reviews—until *Scientific American* hired him as their book review editor," Davis ruefully recalls.

Roberta Pliner, who worked for PHYSICS TODAY under Davis from 1962 to 1965, calls him an "editor's editor." "His motivating force was not fear of failure, it was striving toward excellence; the writing had to be good, it had to be dignified, and it had to have punch," she says. "He was the hardest working person I have ever known. His standards were perfection. He said, 'If the *New Yorker* can do it, we can do it.' And he did it."

Davis left the magazine at the end of 1965, after 17 years, and later retired to rural New Mexico, a place he chose for its climate and sparse population. Running PHYSICS TODAY "was a rich experience," he says. "I like problem solving, and it was nothing but a series of problems needing to be solved."

## Physics and whimsy

The magazine's third editor, Reed Hobart Ellis Jr, was the first to hold a PhD in physics. He served from 1965 to 1969, when he left to become a

point through raising advertising revenues, "which made it possible to hire a couple more people." At the time, he notes, "it was difficult to find [physicists] who were interested in working on a magazine, particularly at the salaries that were available."

Like all the PHYSICS TODAY editors before and after him, Davis was criticized for some of his coverage. For ex-

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## From physics to psychoanalysis

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R. HOBART ELLIS JR



tended to stay aloft for a month at a time. After a few months, "it became clear to me that this thing luckily would not be feasible," Davis says. Not wanting to be "one of the ants" in a huge particle physics experiment, he went to work at *Nucleonics* with Ellis.

At the start of his tenure as PHYSICS TODAY's editor, Davis redesigned the magazine. In the September 1970 issue, he explained the new cover line: "In these times, physics needs to speak up in public with a louder voice (larger type) and at the same time in more informal tones (lower-case type)." In addition, to save on printing costs, the body type was made slightly smaller.

One of Davis's longtime interests has been to remind people of the dangers of nuclear weapons, and as editor of PHYSICS TODAY, he gave the topic extensive coverage.

Like Ellis, Davis wrote editorials. "It was quite a challenge to come up with a topic I had something to say about every month," he says. In January 1972, he got into hot water with his editorial "Lost: Our Voice in Washington," in which he worried that none of the top government science posts "will be filled by a man who made his mark as a scientist." To his surprise, he says, AIP management was "afraid that the White House wouldn't like it." From then on, Davis's editorials were subject to pre-press review by the institute's executive committee. Later, the magazine began printing guest editorials only.

Davis says he enjoyed being editor, but he missed doing research. That was why he left the magazine in 1985 to pursue his interest in human motivation by performing research, teaching and doing clinical work as a psychoanalyst, for which he had become certified in 1969. Today, Davis and his wife run the New Center for Modern Parenthood & Psychotherapy, a private clinic they founded in New York City.

## A balancing act

One of the staff members hired by Robert Davis was Gloria B. Lubkin. "She called up to see if there was anything available in the way of a job, so we talked on the telephone, and I said, 'You're hired, come on in,'" he chuckles, explaining that Lubkin's straightforwardness and her physics background—"a blessing for me"—were what landed her the job.

"I love physics, and really love great physics," says Lubkin, who joined the staff in 1963 and served as PHYSICS TODAY's editor from 1985 to 1994. "It's a little bit like the great composers. You can enjoy ordinary com-

posers, but when there is a Beethoven or a Brahms, or music of that quality, there is a great thrill to listening to it, and to admiring the work. That's how I feel about physics." What Lubkin has liked best about being at the magazine, she adds, is being able to share the excitement of discoveries with the physics community.

Lubkin earned her master's degree in nuclear physics from Boston University while simultaneously working in industry doing calculations on shielding for a nuclear-powered airplane. At PHYSICS TODAY, she recalls, "the first assignment that was meaningful to me was to write about Maria Goepfert Mayer, Hans Jensen and Eugene Wigner" when they won the Nobel Prize in 1963. "I had to learn how to write about physics."

"I think I pioneered in-depth reporting at the magazine," continues Lubkin. In 1967, well before becoming editor, she founded the magazine's "Search and Discovery" section, and later, she started the "Reference Frame" and "Career Choices" departments.

Lubkin views the magazine's mission as unifying both physics and physicists. "You have to make sure that the magazine has breadth, and that it covers all the topics physicists are working on. At the same time, you have to hold the interest of the reader, who may not want to read about some fields." The editor also has to contend with political pressures from within the physics community, she adds. For example, people from "a sub-field may attempt to persuade the editor that their area is not getting enough attention. It's a balancing act."

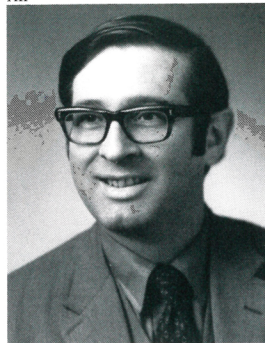
Among Lubkin's proudest achievements as editor is the February 1989 issue honoring Richard Feynman. "He was an inspiration to the physics community, and every one of the articles we assembled for that issue was very special," she says. Another high point was "our objective coverage" of the Strategic Defense Initiative, or Star Wars program, launched by President Reagan.

Since 1994, when Lubkin stepped down from the editorship to become editorial director, she has remained actively involved in the magazine.

## PHYSICS TODAY today

The magazine's sixth and current editor, Stephen Benka, assumed the post in November 1994, having joined the

AIP



HAROLD DAVIS

magazine's staff about a year earlier.

"I came to physics late in life," says Benka, who worked for ten years at the US Post Office in Denver, Colorado. While there, "out of sheer curiosity" he took his first-ever physics course, and eventually decided to continue "in earnest this hobby I had frivolously pursued—physics." In 1991, he earned

his PhD from the University of North Carolina for research on x-ray and radio emissions from solar flares that he carried out at NASA. "I've always loved the written word," says Benka. "And I've always loved science. So I thought, How wonderful it would be if I could marry the two."

"The magazine is always a work in progress," says Benka. The biggest challenges, he adds, are "casting a wide enough net to catch all of the great science that's being done and getting as much of it as possible into the magazine." Benka introduced the "Physics Update" page in February 1995. Changes in the magazine's coverage, he notes, "have to reflect the increasing complexity and multidisciplinary nature of physics." But one thing that hasn't changed, he says, is the magazine's adherence to "very high standards of accuracy, balance and perspective."

## PHYSICS TODAY gets a publisher

Charles Harris, the magazine's first official publisher, came on board in April 1994, bringing with him more than 30 years of science publishing experience, including 11 years at *Scientific American*. "PHYSICS TODAY needed to have one person who would integrate the management of the magazine's components—editorial, advertising, finance and circulation," says Harris, adding that it was this full range of responsibilities that attracted him to the job. He lists as his first major accomplishment having made sure that the magazine comes out on time. He also wrestles with improving the "layout, number, length, timeliness and accessibility of articles," while at the same time containing the magazine's costs, broadening its audience beyond member societies—but without eroding their membership bases—and attracting new categories of advertisers. "To find the right mix that lets us come close to doing all this," he says, "will be extremely sweet." **TONI FEDER ■**