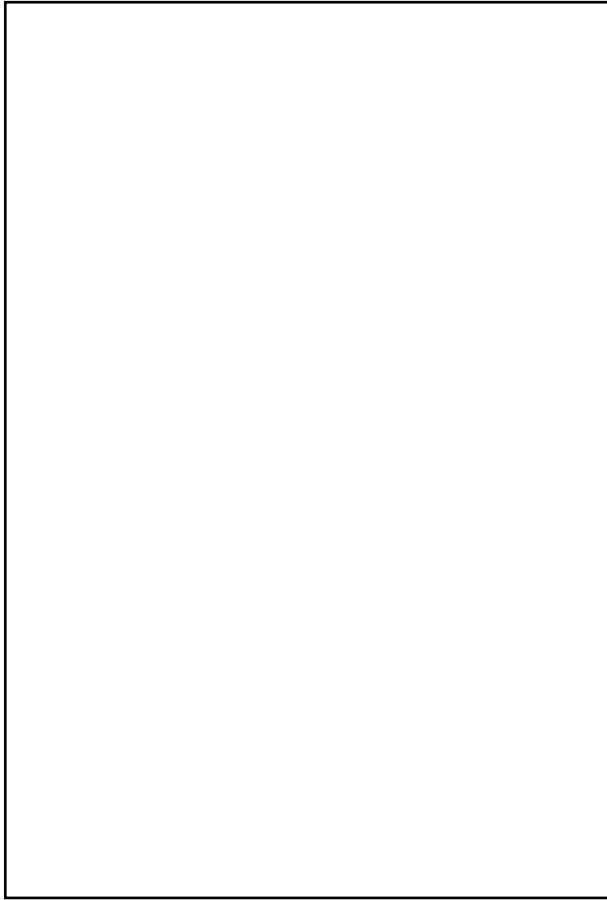


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**GERARD PIEL**



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GERARD PIEL (of the family of Piel Brothers who in the 1880s began brewing the famous Piel's Beer) was the man who in 1948 revived *Scientific American* and then saw it through to its emergence as the preeminent popular magazine of science. He was involved with the running of the magazine until 1988.

In 1964, Dennis Flanagan, who was then the editor of *Scientific American*, asked me to contribute an article to a special issue on mathematics. I agreed, and it was published in the September issue. Through Flanagan, I got to meet Piel and had some correspondence with him in a nonscientific context.

Sometime in the mid 1970s—I can't recall the exact sequence of events—I wrote a short *jeu d'esprit* entitled *The Thread*, one of whose chapters dealt with Massenet's opera *Thaïs*. Thinking that Gerard would be amused by my story, I sent him a prepublication copy. He immediately wrote back that he knew the soprano Beverly Sills quite well, and that she was just about to appear at the Metropolitan Opera in the title role of *Thaïs*. Gerard sent my little book on to Sills. She wrote a nice thank-you note and Gerard wrote a nice plug for the book. Sills's performance was in February 1978. A terrific blizzard hit the Northeast, covering up cars in Providence completely. But Amtrak was running, and my wife and I managed to get to the Met to hear Sills. Gerard was amused by this story and over the next month or so, some banter ensued.

Years later, with the publication in 2001 of his book *The Age of Science: What Scientists Learned in the 20th Century*, which I wanted to review for *SIAM* [Society for Industrial and Applied Mathematics] *News*, I took the occasion to renew our acquaintance. I wrote to Piel proposing an interview. I indicated that I would bring neither tape recorder, laptop, nor notebook to our get-together. He immediately invited me to lunch at his club in Midtown Manhattan.

On 10 April 2002 we spent a leisurely hour and a half over lunch, during which our conversation ranged widely. We both had been undergraduates at Harvard, though separated by six years, and this connection, which I exploited, drew from him reminiscences of his college days. Piel graduated from Harvard in 1937, with a major in European history. He was a tutee (in the Harvard sense) of the historian Michael Karpovich. He was also, he told me, a great admirer of Robert K. Merton, one of the first scholars in the "sociology of science" and at that time a young faculty member at Harvard.

Shortly after his graduation, Piel took a job as a science reporter with Henry Luce's new *Life* magazine. In those days, the amount of science journalism was slight. From there, his lifetime career—making advances in science accessible to the general public—was set. We spoke

of politics and he described some of the cases that his wife, Eleanor, a prominent civil rights attorney, had dealt with.

I recall Piel as a lively character, full of wit, stories, and genial laughter. A public-spirited fellow, he served on all kinds of boards, both scientific and cultural, and won many honors. Not surprisingly, he knew “everybody who was anybody.” His book *The Age of Science* expounds on space, time, quantum theory, cosmology, light and matter, the living cell, geology, and the evolution of life in considerable detail. Technology is not covered, nor is medical science. Given Piel’s early training in history, it is not surprising that he embedded his narratives in historical settings.

It was plain to me that *The Age of Science* was a virtuoso performance. From it I was able to acquire a familiarity with the vocabulary of the various sciences and to learn something of their methodology. Though admitting that science creates new problems even as it provides solutions to old ones, Piel exuded optimism about its future. I diverged from his optimism, disagreeing—to name a specific instance—with his approving quotation from the inaugural address of molecular biologist Jacques Monod on his election, in 1967, to the Collège de France: “The sole end, the sovereign good, the supreme value in the ethic of knowledge—let us acknowledge it—is not the happiness of man, much less his comfort and security—it is objective knowledge itself.”

In arranging to meet Gerard Piel, I told him frankly that I was looking to find a “hook” around which to wrap my review. From memory, I’ve reproduced the essence of one part of our lunch conversation.

PJD: You know, there’s no math in your book.

GP: Yes, I know.

PJD: Why is that the case?

GP: Because I’m ignorant of math.

PJD: How much math did you have in school?

GP: Up through trigonometry at Phillips Andover.

PJD: Well, that’s not total ignorance. You’re probably aware that everything you’ve written about in, say, theoretical physics, has a tremendous base of advanced math.

GP: I am aware of that. And I also know that when the public thinks of math, it thinks that it’s just arithmetic. I myself know better than that, but still I’d call myself ignorant. You know, the word “innumerate” is used today to describe people such as myself, but I don’t like the word.

PJD: I don’t like it either. How would you describe yourself, then?

GP: As ignorant. Possibly as “immathematical.”

PJD: Have you known any famous mathematicians over the years?

GP: I've known many mathematicians, but I believe they were all mathematicians manqués.

(I wasn't then and am still not sure what Piel meant by "mathematicians manqués.")

Here we have a person, in some ways an "average" person, in others very far from average, a man who could expound the major ideas of twentieth-century science with grace and understanding and who, at the same time, admitted to ignorance of mathematics. In my review, I raised questions as to how much mathematical knowledge is necessary for the average person to live intelligently and productively in today's world.

I have often found that the "average citizen" does not realize that absolutely new mathematics and applications of old mathematics are constantly being created by the scientific community and implemented by the technological community. Mathematics is no longer merely a liberal art, a science, or a useful craft. Mathematics, when applied, has become a product, and as such it becomes subject to market forces, political and legal actions, and court decisions. I'm sure that for all his professed ignorance of mathematics, Gerard Piel knew about and appreciated these aspects of mathematics. It was clear to me that if this sort of "math appreciation" were widespread, it would extend the meaning of the word "numeracy" and enlarge the horizon of those who assert that their only connection to mathematics is that they've put their checkbooks more or less in order. It would be a great educative step forward in the direction in which Gerard Piel guided *Scientific American*.

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**G**ERRY PIEL was a wrestler at Harvard, tough, aggressive, agile. He stayed in that mode across decades as inventor—with Dennis Flanagan—and publisher of the modern version of *Scientific American*, the oldest continuously published magazine on earth.

Science is hard and nature is ornate; it is also beautiful in form and process. Gerry got that. He saw and felt and loved the force of science, the labor to attempt knowledge and sometimes gain it. The scientific enterprise was for him enthralling. He had abiding affection for scien-

tists, particularly those who could with words and pictures tell a science story with clarity and grace. Look what he and Dennis did with the pages of that magazine: paintings and drawings in full (and useful) color, clear sentences, showing how the world works, month after month for years and years.

Science publishers (and maybe other publishers, too) are mostly moons among stars, bathed in light from the likes of Richard Feynman or James D. Watson or Hans Bethe and reflecting that light in their publications. Gerry was a star in his own right.

I met him in 1980. I called him; he asked me over. I proposed a new imprint: Scientific American Books. Use the momentum and meaning of the magazine to build a list of books that did what the magazine did, clarify science for almost ordinary and highly interested folks in the open world, but use the book as a device to sustain a longer narrative than the magazine could deliver and allow the voice of the writer to remain evident without editorial intrusion.

“Let’s do it.” He hired me on the spot.

Yes. Except that I came by his office the next day to discover that the board of directors of *Scientific American* had talked together on the telephone and told Gerry, “If this guy is a hotshot, then send him to San Francisco to run W. H. Freeman and Company,” bought by *Scientific American* a few years earlier and faltering. We could still do Scientific American Books.

Hot shot? No. But I looked like one at first glance. I had come to New York from McGraw-Hill, Toronto, in 1962, co-founded W. A. Benjamin, Inc. (now Benjamin-Cummings and owned by Pearson), then co-founded Worth Publishers (now owned by Von Holzsprink, which now also owns *Scientific American* and Freeman), then co-founded Garland Science (now owned by Taylor and Francis), and then served as director of the College Department of W. W. Norton and Company. During these first two decades of my publishing career, I had with colleagues—all publishing is collaborative—managed to bring into the world a set of winning science texts, most of which are still at the front of their fields. But, of course, I am a moon. I shone a bit, but the photons came from elsewhere.

I worked with Gerry for the next four years, at a distance for most of that time, he in New York, I in San Francisco. It was an exhilarating time. He moved with daunting pace, acuity, and determination. My colleagues and I, with Gerry’s help and blessing, launched the Scientific American Library, using as our nucleating mechanism the amazing *Powers of Ten* by Charles and Ray Eames and Phil and Phylis Morrison. On these pages you see the “effect of adding a zero.” Start near the middle of the book, a picnic in a park in Chicago, a man asleep on

a blanket. Go forward from that point, two-page spread by two-page spread, up to 10 to the 25th; go backward from that midpoint, down to 10 to the minus 18.

This first book in the Scientific American Library was Gerry's gift to our new editorial program. It had started as the brainchild of the Eameses and the Morrisons and was based on the short and lovely movie that Charles and Ray and Phil had made some years before, but Gerry had signed it up. You can see on its pages a broad sweep, from smallest to largest, of diverse items in the universe. It's a Pielian exercise, fitting symbol of Gerry's scope, fitting testament also to his skill at linking words and images to show what's up.

Under Gerry's direction the magazine thrived, became global, with editions published all around the world. Leading scientists of Gerry's era read it and wrote for it. It was a unique achievement, the best in the business, a source of science explication for the motivated reader. Gerry and his longtime and salient collaborator, editor-in-chief Dennis Flanagan, made the magazine a worldwide event. Under Gerry's direction, our Scientific American Library likewise became a leading series of trade books on science.

Gerry was also an intellectual wrestler, deeply committed to science education as a prime source of enlightenment. Remember E. O. Wilson's sociobiology? How it grew from Ed Wilson's close look at ants into an account of eusocial behavior in bees and termites and, in a frightening leap, speculated on the biological origins of human social behavior. Stephen Jay Gould and Richard Lewontin and other brilliant intellectual warriors, including Gerry, mounted a counterattack: a fierce battle; ice water poured on Ed Wilson's head; shrill assertions. The very notion that biology (a pre-wired brain shaped by the genome) could determine human social behavior was, for Gerry, anathema. He remembered too well the ill-conceived presumptions of an American and German eugenics movement that so poisoned the first half of his century. Over time the fight has faded, observation and reason prevail, a muddle of genetic and environmental influences are seen to collaborate in forming human behavior. But the fury of those confrontations and Gerry's muscular striving on behalf of self-reliance and self-responsibility and individual, conscious moral effort (with no biological excuses for bad behavior) were the mark of a man who took his science seriously, who cared always about the human circumstance, and was tireless in his efforts to use science to improve our global lot. He was wrong only rarely; mostly he was right. And he was always strong. For me the sociobiology debate demonstrated Gerry's emotional allegiance to the idea that science yields insights that must inform political and economic action. We must get better at understanding the human species, our origins

and evolution, if we are ever to achieve some measure of constructive harmony among ourselves and the rest of nature.

On the New Year's card that Gerry sent at the turn of the century, he wrote that he hoped we, humanity in general, would do a better job in this next one. We aren't, so far, but we could if we were to use him as our model for responsible thought and action.

We each of us hold in our minds a few vivid people who have, without intention, become inescapable members of our very selves. You are washing dishes or driving alone and they rise in memory and stay for a while. Gerry occurs to me once or twice a week, often with his bright and elegant Eleanor, a compelling couple, gracious and caring and sharp. Those of us who have attended their dinner parties will be those who keep them in mind.

Science matters. Publishing matters. Gerry showed how it's done.

Elected 1963; Councillor 1979–82; Committees: Advisory on Election of Members 1981–83; Bank Building–Development 1982–86; Development National/Campaign National 1990–93; Jayne Lectures 1968–86; Meetings 1966–2003; Membership V 1977–83; Nomination of Officers 1981–83

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