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Alvin White, A Man Of Courage

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Synopsis

A friend reminisces about Alvin White, a humanistic mathematician.

Courage is what it takes, to speak loud about failings that no one wants to hear about. And it takes more courage to go on speaking up, while your warnings and insights are spurned and ignored – once, twice, and still once again. Such was the courage of Alvin White. A man who could seem rather mild – always polite and considerate, always willing to listen before he spoke. If only more of those in the seats of power knew enough to listen to him!

Inspired by the writings of the psychologist Carl Rogers, who invented “client-centered therapy,” Alvin created and invented “student-centered mathematics teaching.” In a course on the calculus of variations, he introduced ten or twelve text books, and let the students find how best to use the different books for their own learning, and to give reports to the class. In a calculus class, students were encouraged to modify problems, to invent original problems and to challenge each other to solve them. “We were a society participating in doing mathematics. The most controversial innovation was the cooperative exam where the whole class could discuss the problems and solutions.”¹

Alvin wrote, “When I first started to teach, my ambition was to present a complete and masterful lecture. After I read Polanyi and others, my ambition became not to present a perfect complete lecture, but to inspire my students (or rather, conspire with them) to become interested in the subject and learn

¹For most quotes used in this essay and much more, see “*Teaching as Though Students Mattered: A Biography of Alvin White as told to Sandra Keith*”, Humanistic Mathematics Network Journal #26, pages 65–69.

the subject for its own sake. Perhaps I have made some progress toward that goal and have had some partial success, but I am continuing to learn in my teaching, now, at age 77.”

In 1986 Alvin took the initiative to call for a humanistic mathematics network. There were annual national meetings of the Network for 17 years. In 1987 he started the *Humanistic Mathematics Network Newsletter*, with financial support from the Exxon Foundation. Until 2002 he carried the burden and did the day-to-day work of sustaining the Network and its *Newsletter*. (That title was later promoted to *Journal*.) It was devoted to the cause of “humanistic mathematics”, which meant viewing mathematics as part of human culture, and “teaching mathematics as if students mattered.” All 26 issues of the *Newsletter/Journal* are now (or will soon be) available on line. There are many articles about mathematics teaching at all levels, and about the interaction of mathematics with every humane inquiry—the arts, history, philosophy and social justice.

Editing a periodical is a tedious, thankless job. So many details to worry about! So many things for somebody to complain about! When readers are satisfied, they thank the author (not the editor). When they’re dissatisfied, they blame the editor (not the people who could have contributed articles but didn’t get around to it). What should we say about a heroic individual who dares to found a new publication, when that newsletter miraculously makes it? Endures? Finds an angel and an audience? What Alvin has done is awesome.

I met Alvin at national meetings of the math societies, where the Humanistic Mathematics Network held annual meetings. In between, we used e-mail. He and Myra visited Albuquerque once, for the balloon festival, and we had lunch once when our vacations in the Berkshires overlapped. Our generation, Alvin’s and mine, came of age in the closing days of the great war that defeated fascism and Nazism. We matured in the years of the Cold War, the Korean War, Eisenhower and McCarthy and the nuclear arms race. When Martin Luther King, Malcolm X, the Kennedy presidency and the Kennedy assassinations arrived, we were no longer youngsters. During the “war on poverty” and the anti-Vietnam War peace movement and the Nixon presidency, we were both well into middle age

We lived through times of disillusionment, times when hopes were raised and crushed, times when devotion to a cause began to seem “quaint,” when “wanting it all” and “making it big” and “bottom line” and “ecological dis-

aster” became bywords. Alvin thought long and deeply about what it means to be a mathematician or a mathematics teacher, in this world that so desperately needs to be saved. He established humanistic mathematics as a visible part of the mathematics world. His words bear much reading and long contemplation.

Alvin was one who never seemed touched by despair or cynicism. Sometimes he seemed almost innocent. To him, apparently, it made sense to just do the right thing, regardless of how popular or unpopular, fashionable or unfashionable, up to date or out of date, it might be considered.

Of course he didn’t attain all the material and psychological rewards of those who play the academic game for all it is worth. But he didn’t worry about playing the academic game for all it is worth. He did get grants, he did fit into and work with the university system. But he did so only as far as it served to advance humanistic goals. His very lack of pomposity or of self-seeking calculation, I believe, helped him to succeed. No one could mistake his integrity and his intelligence, even those who had no share in his optimism and hopefulness.

Alvin was born in New York on June 21, 1925. His parents were Max and Beatrice. His mother was born in the U.S., and his father was born in Russia. His father was a millinery manufacturer. His mother helped out in the office sometimes, but was mainly a homemaker.

Alvin met Myra Goldstein in New Utrecht High School in Brooklyn where they were active together in student government. In 1943 he was drafted, and served in the US Navy. He was ordered to return to the mainland for officer training. The day after he left his ship, his quarters on shipboard were destroyed by a Japanese bomb. He and Myra married in December, 1946.

He graduated as a math major from Columbia University in 1949. (Memorable courses: “Greek and Roman Mythology” with Moses Hadas, and “The Family Past and Present” with Bernard Stern.) He earned a master’s degree in math at UCLA in 1951. He received his Ph.D. from Stanford in 1961, under Stefan Bergman. His thesis was on partial differential equations related to fluid dynamics.

He worked at the University of Wisconsin in 1961-1962, and was hired at Harvey Mudd in 1962, where he remained until he retired in 2002. Under a Danforth Fellowship in 1977 he taught a seminar at MIT on knowledge, certainty, and education, studying Dewey, Kant, Polanyi, Russell and others. He wrote, “We ended up meeting the whole morning until we were eventually

displaced by lunch hour. We became a community that cared for one another and learned from each other.”

From 1977 to 1981 he received a grant from the Fund for the Improvement of Postsecondary Education (FIPSE). “The goal was to make every participant an interdisciplinary scholar-teacher – to introduce scientists to the humanists’ viewpoint and knowledge, and vice versa. Prominent scholars from all over the US came to speak to us.”

He maintained the Humanistic Mathematics Network from 1986 to 2002. In 1993 he assembled a collection of articles that was published by the MAA as *Essays in Humanistic Mathematics*. One reviewer wrote, “I enjoyed the book . . . The ideas described here could be used to impart a greater appreciation for the tremendous creativity that mathematicians possess . . . Whether you agree or disagree with the authors, the reading of this material will force you to reexamine your approach to math. If you find yourself in need of some new mathematical flavoring in your classes, this book could serve as your spice rack.”

He died on June 2, 2009.

ACKNOWLEDGMENT: Thank you, Myra, for helping me to write this tribute to Alvin.

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²The following does not include the editorials and self-standing articles in the Humanistic Mathematics Network Newsletter and the Humanistic Mathematics Network Journal authored by White.

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