Walter E. Massey: President-Elect of AAAS

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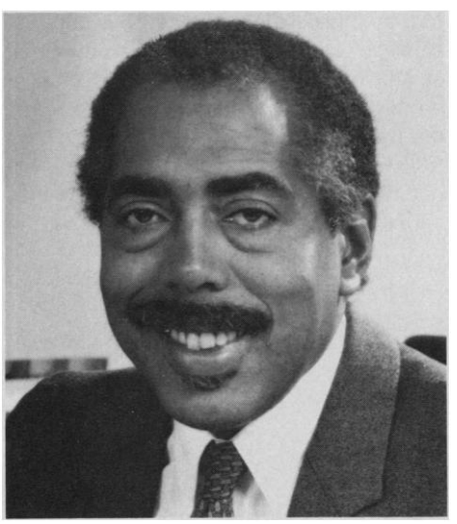
WALTER E. Massey began his academic career as a freshman at Morehouse College in Atlanta, Georgia, in 1954, after completing the tenth grade in Hattiesburg, Mississippi. He had never heard of physics and had never taken a course in chemistry, trigonometry, or advanced algebra. After 2 weeks, he asked his mother to take him home. Fortunately, his mother did not listen to him, and Massey persevered. With the support from those he terms "faculty mentors," he graduated from Morehouse in 1958 and went on to earn a Ph.D. in physics in 1966 from Washington University in St. Louis, Missouri.

Since then, the career of the president-elect of AAAS has been marked by extraordinary accomplishments in science, education, administration, and public service, culminating in his current position at the University of Chicago as professor of physics and vice president for research and for Argonne National Laboratory.

Massey's research has centered around methods of numerically calculating the low-temperature properties of strongly interacting fluids. As a student of Eugene Feenberg at Washington University, he developed methods of applying correlated basis functions to both liquid and solid ^{4}He and ^{3}He (*1*). In the early 1970s at Brown University, he extended these methods to calculate properties of mixtures of ^{3}He in ^{4}He (*2*) and surface properties of quantum fluids. Perhaps his most significant work was with Humphrey Maris (*3*) at Brown; they explained the anomalous attenuation of sound in superfluid ^{4}He in terms of three phonon interactions.

Massey's professional career began as a postdoctoral fellow at Argonne National Laboratory in 1966. Two years later, he became a staff physicist at the laboratory and subsequently was named to an assistant professorship at the University of Illinois at Urbana-Champaign. In 1970 Massey moved to Rhode Island to become an associate professor at Brown University. Five years later, he was promoted to professor of physics. In the same year he became dean of the college of Brown University. While at Brown, he originated and directed the Inner City Teachers of Science (ICTOS), a program to educate science teachers for urban schools. This innovative program involved undergraduates in active roles as mentors and tutors in urban classrooms as an integral part of their introductory physics, chemistry, and biology courses (*4*). For his work in ICTOS, Massey received the Distinguished Service Citation of the American Association of Physics Teachers in 1975.



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Massey returned to the Midwest in 1979 to become director of the Argonne National Laboratory and professor of physics at the University of Chicago, which operates the laboratory under contract to the U.S. Department of Energy. As the director he was responsible for the management of one of the nation's largest and most diverse energy R&D laboratories, with a staff of approximately 4000 and an annual budget of more than $250 million. In a series of articles on the status of national laboratories in 1982, *Science* noted that under Massey's leadership Argonne had moved from a laboratory with a much debated mission to one that had made a "comeback," and in which the Department of Energy had "greatly increased confidence" (*5*, p. 357). In 1982 Massey became the University of Chicago's vice president for research; in 1984 he relinquished the directorship of Argonne and assumed the title of vice president for research and for Argonne National Laboratory.

During his career, Massey has also played an active role in many professional scientific organizations including, of course, the AAAS, where he has served on the Board of Directors. He also has served on the Council of the American Physical Society, the Physics Advisory Committee of the National Science Foundation (NSF), and the National Academy of Sciences' Advisory Committee on Eastern Europe and the U.S.S.R.; he was a member of the National Science Board from 1978 to 1984.

Currently, Massey serves as a trustee of Brown University and the Rand Corporation and is a member of the visiting committees for the physics departments at Massachusetts Institute of Technology and Harvard University. He also is a member of two NSF advisory committees and the Superconducting Super Collider site evaluation Committee of the National Academies of Sciences and Engineering and cochairs the AAAS Steering Committee for the Project to Strengthen the Scientific and Engineering Infrastructure in sub-Saharan Africa.

Within Illinois and throughout the Midwest, Massey is a leading force in efforts to forge mutually advantageous relations involving industry, government, and research universities, or as *Crain's Illinois Business* put it, Massey is the state's "high priest of high tech" (*6*). In 1982 he chaired the Chicago Mayoral Task Force on High-Technology Development, and he is the founding chairman of the Chicago High-Tech Association. He serves on the Governor's Commission on Science and Technology

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and is a charter trustee and one of the originators of the Illinois Science and Mathematics Academy, a new residential state high school for talented youngsters.

At the University of Chicago, Massey was instrumental in the formation of the Argonne National Laboratory–University of Chicago Development Corporation (ARCH), whose board he now chairs. The ARCH project, which recently celebrated its first anniversary, is the first joint effort by a national laboratory and a university that is aimed at facilitating the transfer of technology from laboratories to the marketplace.

The professional achievements of Walter Massey do not by themselves convey a true sense of the manner and mission of this dynamic man, who was dubbed "a nuclear power" and a "man of energy" in a *Chicago Tribune* "Style Section" cover story (*7*). In addition to his official duties at Argonne and the administration of research at the University of Chicago, Massey participates fully in the life of the university, serving on a number of faculty committees and attending cultural and social events on a regular basis. Off-campus, he plays a leading role in civic and cultural affairs; he has been a director of the United Way of Chicago, and is now a trustee of the Museum of Science and Industry and the Chicago Symphony Orchestra.

On a more personal level, Massey derives considerable satisfaction from acting as a mentor for students today, guiding them in much the same way that he was guided early in his own career. In a speech to the National Conference of Minority Students at the University of Chicago in the spring of 1987, Massey discussed serving as a mentor in personal terms: "At critical points in my life and in my academic career, mentors have given me the confidence and support without which it would have been almost impossible to carry on. Unfortunately, not everyone is so fortunate. Minority students, who perhaps need that sort of support more than most other students, often find it unavailable."

When he has spare time, Massey enjoys sailing, skiiing, tennis, and an occasional jog along the lake. He also enjoys jazz and blues as well as classical music. Walter and Shirley Massey have two sons: Keith, who, with his wife Heather, lives in Santa Fe, New Mexico, and Eric, who attends high school at the University of Chicago Laboratory School.

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