

A. Nico Habermann



Born June 26, 1932, Amsterdam, Holland; died August 8, 1993, Pittsburgh, Pa.; a well-respected leader in the fields of programming languages and software engineering environments; he was instrumental in founding the Software, Engineering Institute and served as acting director until the first permanent director could be appointed.

Education: BS, mathematics, Free University, Amsterdam, 1958; MS, mathematics, Free University, Amsterdam, 1963; doctorate, applied mathematics, Technological University, Eindhoven, Netherlands, 1967; first doctoral student of Edsger Dijkstra.

Professional Experience: Carnegie Mellon University: visiting research scientist, 1968-1969, associate professor, 1969-1973, full professor 1973-1993, acting department head, 1979; department head, 1980-1988, dean of the School of Computer Science, 1988-1991; adjunct professor, computer science, Jiao Tong University, Shanghai, People's Republic of China, 1986-1993.

Honors and Awards: member, New York Academy of Sciences.

A. Nico Habermann, the Alan J. Perlis professor of computer science at Carnegie Mellon University and a founder of the Software Engineering Institute, suffered a heart attack after a morning run and died on the porch of his Squirrel Hill (Pittsburgh) home on August 8, 1993. He was 61.

Since 1991, Habermann had been on leave from CMU to be assistant director for computer and information science and engineering at the National Science Foundation. He commuted regularly from Washington, D.C., to Pittsburgh.

An internationally renowned computer scientist, Habermann was known for his work in programming languages, operating systems, software engineering, and packages.

He worked on language design and implementation for Algol 60, Bliss, Pascal, Ada, and other special-purpose computer languages. Habermann's contributions to the field include a critique of the Pascal programming language and research on deadlock prevention, path expressions, and integrated software development as exemplified in the Gandalf project he started at CMU in the early 1980s.

A native of Amsterdam, Habermann received a doctorate in applied mathematics from Technological University, Eindhoven, Netherlands, in 1967. He earned his bachelor's and master's degrees in mathematics in 1958 and 1963, respectively, from the Free University in Amsterdam.

In 1968, Habermann went to CMU as a visiting research scientist in the Computer Science Department. He became associate professor in 1969, full professor in 1973, and acting department head in 1979. He led the

department from 1980 to 1988, a period during which it became first a department independent of any college within the university, and then a school. He then was first dean from 1988 to 1991. By that time the School of Computer Science represented one third of Carnegie Mellon's research income and was consistently ranked among the top two or three computer science research schools in the US.

Since 1986, he had been an adjunct professor of computer science at Jiao Tong University, Shanghai, People's Republic of China.

Habermann was a member of the Computer Science and Telecommunications Board of the National Academy of Science. He was an adviser to the Max Planck Institute in Germany and a member of the New York Academy of Sciences. He was an editor of the *IEEE Transactions on Software Engineering*.

Nico exercised regularly and usually walked to work. He jogged shortly before suffering the attack on the porch of his home. He also was an avid wind surfer.¹

QUOTATION

“The original dream of a general purpose language used by all programmers will never materialize, primarily for two reasons. First, our collective understanding of computing keeps evolving and leads to new or enhanced concepts which we want to see reflected in our programming languages. Second, programming tasks can often be served better by specialized tools which directly support the specific nature of these tasks. But giving up the dream ... implies that we should be willing to live with a possibly large number of special purpose languages. This is acceptable provided we pay serious attention not only to the art but also to the engineering of programming languages. In addition, it will be necessary to use a common implementation language for making programs portable.... An ideal language allows us to express easily what is useful for the programming task and at the same time makes it difficult to write what leads to incomprehensible or incorrect programs.”

BIBLIOGRAPHY

Significant Publications

Habermann, AX, “Prevention of System Deadlocks,” *Comm. ACM*, 1973.

Habermann, A.N., “Critical Comments on the Programming Language Pascal,” *Acta Informatica*, Vol. 3, 1973.

¹This biography is based on The Pittsburgh Post-Gazette, Monday, August 9, 1993.

Habermann, AX, and D.E. Perry, *Ada for Experienced Programmers*, Addison-Wesley, New York, 1984.

Habermann, AX, "Technological Advances in Software Engineering," *Proc. ACM Computer Conf.*, Cincinnati, Ohio, 1986.

Habermann, A.N., and D. Notkin, "Gandalf: Software Development Environments," *IEEE Trans. Software Engineering*, Vol. 12, 1986.

UPDATES