CHEMICAL HERITAGE FOUNDATION

DOV FROHMAN

Transcript of an Interviews
Conducted by

David C. Brock

Via Telephone

on

10 May, 6 June, and 12 June 2006

(With Subsequent Corrections and Additions)

ACKNOWLEDGEMENT

This oral history is part of a series supported by grants from the Gordon and Betty Moor Foundation. This series is an important resource for the history of semiconductor electronics, documenting the life and career of Gordon E. Moore, including his experiences and those of others in Shockley Semiconductor, Fairchild Semiconductor, Intel, as well as contexts beyond the semi conductor industry.

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DOV FROHMAN-BENTCHOWSKY

1939	Born in Amsterdam, The Netherlands on 28 March

Education

1963	B.S., electrical engineering, Technion University, Israel Institute of Technology
1965	M.S., electrical engineering, University of California, Berkeley
1969	Ph.D., computer sciences, University of California, Berkeley

Professional Experience

1965-1969	Fairchild Semiconductor Corporation Technical Staff
	Intel Corporation
1969-1971	Engineering Staff
1974-1981	Consultant, Intel Israel
1981-2001	General Manager, Intel Israel
1981-2001	Vice President, Microprocessor Products Group
	Kwame Nkrumah University of Science and Technology
1972-1973	Visiting Professor
	Hebrew University of Jerusalem
1974-1980	Associate Professor of Applied Physics
1975-1980	Director of the School of Applied Science and Technology
1980-1981	Professor of Applied Physics

Honors

1982	IEEE Jack Morton Award
1982	Appointed IEEE Fellow
1991	Israel Prize for Engineering and Technology

ABSTRACT

Dov Frohman begins the interview by describing his early separation from his parents in the Netherlands due to World War II. After moving between several orphanages, Frohman was adopted by relatives and attended primary and secondary schools in Israel. Fascinated by electrons, Frohman attended the Technion University and majored in electrical engineering. After working for a brief stint in Israel, Frohman moved to the United States to pursue a master's degree in EE at the University of California, Berkeley. Frohman then described accepting and working at Fairchild Semiconductor Corporation for two years before returning to Berkeley as a part-time student to complete his Ph.D. program. After obtaining his doctoral degree in computer sciences, Frohman joined Intel, a start-up founded by former Fairchild employees. While at Intel Frohman was assigned to investigate instability problems in MOS [metal-oxide semiconductor] memories that led to the invention of EPROM [erasable-programmable read only memory]. With EPROM gaining commercial success, Frohman spent a year as visiting professor at the Kwame Nkrumah University of Science and Technology before returning to Intel in the United States. Fueled by his lifelong desire to return to Israel, Frohman convinced Gordon Moore and other Intel executives to invest in a development center in Jerusalem. Frohman then spent the next seven years teaching applied physics at the Hebrew University of Jerusalem while consulting for Intel Israel. The Intel investment was a success and at 1981 Frohman took a leave of absence from the University and became the first manager of Intel Israel's new fabrication plant. As Intel Israel's operations expanded, Frohman's role expanded as well to become Manager of Intel Israel and Vice President of the Microprocessor Products Group within Intel. Frohman concludes the interview by offering impression of the role Intel played in development of the semiconductor and technology-based industries in Israel; tips on maintaining open communications between Intel Israel and Intel headquarters in Santa Clara, CA; and final reflections on Gordon Moore.

INTERVIEWER

David C. Brock is a senior research fellow with the Center for Contemporary History and Policy of the Chemical Heritage Foundation. As an historian of science and technology, he specializes in oral history, the history of instrumentation, and the history of semiconductor science, technology, and industry. Brock has studied the philosophy, sociology, and history of science at Brown University, the University of Edinburgh, and Princeton University (respectively and chronologically). His most recent publication is *Understanding Moore's Law: Four Decades of Innovation* (Philadelphia: Chemical Heritage Press), 2006, which he edited and to which he contributed.

TABLE OF CONTENTS

INDEX