



Smithsonian

*National Museum of American History Kenneth E. Behring Center*

## Guide to the Herb Grosch Papers, 1938-1998

NMAH.AC.0703

Charles Hargrove (intern)

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## Collection Overview

<b>Repository:</b>	Archives Center, National Museum of American History
<b>Title:</b>	Herb Grosch Papers
<b>Date:</b>	1938-1998
<b>Identifier:</b>	NMAH.AC.0703
<b>Creator:</b>	Grosch, Herbert R. J.
<b>Extent:</b>	5 Cubic feet (15 boxes)
<b>Language:</b>	Some materials in German.
<b>Summary:</b>	The Herb Grosch Papers, 1948-1998, cover the life and career of an early computer professional. It consists of correspondence, clippings, photographs, computer disks, reports, and other printed materials.

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## Administrative Information

### Acquisition Information

The materials in the collection were donated by Herb Grosch on October 13, 1999.

The Archives Center received an addendum of .50 cubic feet in March 2010 from Ella Doyle.

### Related Materials

Grosch was interviewed as a part of the Smithsonian computer oral history project and the taped interviews exist in Collection AC0196, the Computer Oral History Collection, in the Archives Center.

### Processing Information

Processed by Charles Hargrove (intern) August 2001; revised Alison Oswald, archivist, March 2010.

### Preferred Citation

Herb Grosch Papers, Archives Center, National Museum of American History

### Restrictions

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## Biographical / Historical

Herb Grosch (1918-2010) was born in Saskatoon, Canada and became a United States citizen with his father's naturalization. He attended grade school in Ontario and Ohio and high school in Michigan. He attended the University of Michigan from 1934 to 1941, receiving his B.S. in 1938 and his PhD in 1942, both in astronomy. An outspoken and controversial figure, Grosch's professional career was marked with numerous jobs. In 1941-1942 he was an astronomer for the U.S. Naval Observatory in Washington, D.C. and later during World War II worked on fire control and optical engineering. Grosch's astronomical work required many calculations to be done by hand, thus he was well qualified to deal with the computational issues involved in early computer work. In 1945 he was hired by IBM for the Watson Scientific Computing Laboratory in New York, first to do backup calculations for the Manhattan Project and then to help run the Selective Sequence Electronic Calculator (SSEC), an early computer. Grosch was fired in 1951 and moved on to MIT where he worked as a part of the design group for the WHIRLWIND II computer. In 1952 he joined General Electric (GE) and set up and oversaw computer operations in Ohio, Massachusetts, and Arizona. In 1958 he returned to IBM and was the manager of their space program, before being fired again in 1959. Following IBM he moved to Europe and began consulting, notably a survey of the European computer industry for Control Data in 1962-1963. He returned to the United States to work again for GE in 1965, heading the DEACON project at GE's TEMPO think tank. Grosch left GE again in 1967. From 1967 through 1970 he directed the Center for Computer Sciences and Technology for the National Bureau of Standards. From 1973 to 1976 he was the editor of *Computerworld* magazine. Since then Grosch has lived in both Europe and America and done both consulting work and writing. He wrote and published an autobiography, *Computer: Bit Slices of a Life*, that describes his rather tempestuous relationships with GE and IBM. Grosch is perhaps best known for Grosch's Law which says the computing power increases as a square of the cost, or more concretely, in order to perform a computation twice as cheaply you must do it four times as fast.

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## Scope and Contents

The Herb Grosch Papers, 1948-1998, cover the life and career of an early computer professional. It consists of correspondence, clippings, photographs, computer disks, reports, and other printed materials. The collection is approximately 5 cubic feet and is divided into six series: Series 1, Personal Materials, 1938-1998; Series 2, General Electric (GE), 1955-1968, 1993-1995; Series 3, Control Data Corporation, 1961-1966; Series 4, Other Employment, 1945-1997; Series 5, Professional Interests, 1954-1993; and Series 6, Computer History, 1945-1996. The largest and most comprehensive series within the collection focuses on Grosch's employment, in various capacities, by General Electric. The Control Data material is of special interest due to its in-depth studies of the European computer market in the early 1960s.

Series 1, Personal Materials, 1938-1998, illustrates Grosch's personal life and consists of biographical sketches, identification and business cards, vaccination certificates, daily planners/diaries, flight logs, diplomas, a dissertation, correspondence, articles by and about him, photographs, and the manuscript of his autobiography, *Computer, Bit Slices of a Life*. The manuscript is of special interest, in that it is a description of Grosch's life up to the 1960s. Also providing personal descriptions of Grosch's life is an extensive chronology of employment written by Grosch. The bulk of the materials date from the mid 1950s through the mid 1960s, with another smaller concentration of correspondence in the early 1990s.

Series 2, General Electric (GE), 1953-1968, 1993-1995, contains correspondence, clippings, photographs and printed materials related to Grosch's two tenures at GE. The series is divided into four subseries: General GE Materials, GE's Evandale plant, GE's Computer Department at Arizona State University, and GE's TEMPO think tank in Santa Barbara. The subseries about the Evandale plant and the Arizona Computer Department are most comprehensive, describing the projects from their inception until Grosch's departure. Also of interest to those studying GE history is the collection of letters between Grosch and his Arizona boss, H.R. Oldfield, discussing Oldfield's book about GE and its failure in the computer business.

Series 3, Control Data Corporation, 1961-1966, contains correspondence, reports and printed materials covering Grosch's consulting work with Control Data. The bulk of the material has to do with a survey of the European computer industry and market, undertaken by Grosch for Control Data. Included are over forty reports that Grosch composed from plant visits he made to various European computer companies. Also included is the overall summary of these individual reports.

Series 4, Other Employment, 1945-1994, contains correspondence, printed materials, clippings and photographs related to other employment pursued by Grosch. The series covers Grosch's work at IBM, the Corporation for Economic and Industrial Research (CEIR), and his editorial reign at Computerworld magazine. Of interest to IBM researchers are the photos of early IBM gatherings at Endicott, New York and early IBM machines at the Watson Scientific Computer Laboratory.

Series 5, Professional Interests, 1954-1996, consists of articles and other printed materials related to Grosch's scientific and technical interests. The majority of the series deals with Grosch's interest in computers, their applications and their effects upon society. A smaller set of material relates to other Grosch interests, notably astronomy and scientific standards.

Series 6, Computer History, 1949-1996, consists of clippings, reports, and correspondence illustrating Grosch's interest in the history of computing. Of special interest is a report from U.S. Department of Commerce that lists the technical specifications of a number of old computers. Also, in addition to many more famous computing pioneers, Grosch collected information on English mathematician, L.J. Comrie, including a biographical sketch, photographs and correspondence carried on with Comrie's widow and son.

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## Arrangement

Collection is arranged into six series.

### **Series 1, Personal Materials, 1938-1998**

Subseries 1.1, Biographical Materials, 1938-1996

Subseries 1.2, Correspondence, 1948-1998

Subseries 1.3, Travel and Chronology, 1959-1985

Subseries 1.4, Assorted Materials, 1947-1995, undated

### **Series 2, General Electric (GE), 1953-1968, 1993-1995**

Subseries 2.1, General GE Materials, 1953-1966

Subseries 2.2, GE Evandale Plant, 1952, 1955-1956

Subseries 2.3, GE Computer Department, 1954-1958, 1993-1995

Subseries 2.4, GE TEMPO, 1963-1968

### **Series 3, Control Data Corporation, 1961-1966**

Subseries 3.1, General Materials, 1961-1962, 1964, 1966

Subseries 3.2, European Computer Industry Survey, 1961-1963

### **Series 4, Other Employment, 1945-1997**

### **Series 5, Professional Interests, 1954-1996**

### **Series 6, Computer History, 1945-1996**

## Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

### Subjects:

- Computation laboratories
- Computer industry
- Computers

### Types of Materials:

- Audiotapes
- Clippings -- 20th century
- Correspondence -- 20th century
- Diaries -- 20th century
- Drawings -- 20th century
- Lantern slides
- Passports
- Personal papers -- 1950-2000
- Photographs -- 20th century

### Names:

- General Electric Company
- International business machines corporation

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## Container Listing

### Series 1: Personal Materials, 1938-1998

#### Subseries 1.1: Biographical Materials, 1938-1996

Box 1, Folder 1	Biographical Sketches, 1956; 1958
Box 1A, Folder 1	Identification/business cards, undated
Box 1A, Folder 2	Passports, 1954-1985; 1995
Box 1A, Folder 3	Vaccination certificates, 1959; 1970; 1974; 1983
Box 1, Folder 8	Integration Orbit and Mean Elements of Jupiter's Eighth Satellite (dissertation), 1942
Box 1, Folder 9	Diplomas, 1943; 1938; 1942
Box 1B, Folder 1	Address books, undated
Box 1B, Folder 2	Daily planners/diaries, 1940
Box 1B, Folder 3	Daily planners/diaries, 1959; 1966; 1968-1971
Box 1B, Folder 4	Daily planners/diaries, 1972-1976
Box 1B, Folder 5	Daily planners/diaries, 1977-1982
Box 1B, Folder 6	Daily planners/diaries, 1983-1987; 1996
Box 1, Folder 2	Computer, Bit Slices of a Life, (notes and reviews), 1989-1991
Box 1, Folder 3	Computer, Bit Slices of a Life, Chapters 1-16, undated
Box 1, Folder 4	Computer, Bit Slices of a Life, Chapters 17-55, undated
Box 10	Computer disks of biography, undated

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#### Subseries 1.2: Correspondence, 1948-1998

Box 1, Folder 5	Letters to Parents, 1948, 1959-1962
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Box 1, Folder 6	Association for Computing Machinery correspondence, 1976, 1978, 1987, 1993-1994
Box 1, Folder 7	Annals of Computer History correspondence, 1990-1991, 1993-1994
Box 1, Folder 8	Correspondence sent, 1957-1998
Box 1, Folder 9	Correspondence received, 1956-1997

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### Subseries 1.3: Travel and Chronology, 1959-1985

Box 7, Folder 1	General Travel, 1956, 1966
Box 7, Folder 2	Japan Travel, 1960, 1969-1970
Box 7, Folder 3	Chronology, 1962-1963
Box 7, Folder 4	Chronology, 1959-1963, 1965-1969
Box 1A, Folder 4	Expense cards, 1962 March-1963 June
Box 1A, Folder 5	Flight logs, 1959-1963
Box 1A, Folder 6	Flight logs, 1964-1976 September
Box 1A, Folder 7	Flight logs, 1976 October-1985

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### Subseries 1.4: Assorted Materials, 1947-1995, undated

Box 1, Folder 10	Articles by Herb Grosch, 1983; 1986
Box 13, Folder 1	Articles about Herb Grosch, 1956-1962
Box 1, Folder 11	Clippings: Grosch on education, 1956-1957
Box 1, Folder 12	<a href="#">Photographs, 1957, undated</a>
Box 1, Folder 13	Assorted personal papers, 1954; 1962
Box 13, Folder 7	Assorted personal papers, 1954; 1962



Box 13, Folder 2

Awards, 1947-1995

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## Series 2: General Electric (GE), 1955-1968, 1993-1995

### Subseries 2.1: General GE Materials, 1953-1966

Box 8, Folder 1	GE Organization and Policy Guide, 1966
Box 8, Folder 2	Professional Management in GE, Book 1, 1953
Box 8, Folder 3	Professional Management in GE, Book 2, 1955
Box 8, Folder 4	Professional Management in GE, Book 3, 1954
Box 9	GE Data Processing Market Analysis, 1955
Box 2, Folder 1	GE Assorted Papers, 1955-1957; 1968
Box 2, Folder 2	Correspondence 1963, 1965, 1967
Box 2, Folder 3	Salary, 1955-1967
Box 2, Folder 4	GE general newspaper clippings, 1967
Box 2, Folder 5	Printed reports 1958, 1965-1966, 1968
Box 2, Folder 6	Recruitment ads, undated

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### Subseries 2.2: GE Evandale Plant, 1952, 1955-1956, undated

Box 2, Folder 7	Evandale Assorted Papers, 1952, 1956
Box 2, Folder 8	Correspondence, 1955-1956
Box 2, Folder 9	Newspaper clippings, 1953-1956
Box 2, Folder 10	Photographs, 1955, undated
Box 2, Folder 11	Programming Manuals, 1953-1954
Box 2, Folder 12	Promotional Materials, 1954-1956

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### Subseries 2.3: GE Computer Department, 1954-1958, 1993-1995

Box 2, Folder 13	Organization and Setup, 1957, 1993
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Box 3, Folder 1	Correspondence, 1955-1958
Box 3, Folder 2	Circumstances related to Grosch leaving Computer Department, 1958
Box 3, Folder 3	Grosch-Oldfield Correspondence re: Oldfield's GE Book, 1993-1995
Box 3, Folder 4	ABMA Contract, 1957
Box 3, Folder 5	Newspaper clippings, 1955-1960
Box 3, Folder 6	Photographs, undated
Box 3, Folder 7	Promotional Materials, 1957-1958

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#### Subseries 2.4: GE TEMPO, 1963-1968

Box 3, Folder 8	General Documents, 1963-1968
Box 3, Folder 9	Newspaper clippings, 1965-1968
Box 3, Folder 10	Direct English Access and Control (DEACON)_Project, 1966
Box 3, Folder 11	Direct English Access and Control (DEACON), correspondence, 1965-1967
Box 4, Folder 1	Journal Articles related to Direct English Access and Control (DEACON), 1964-1967

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## Series 3: Control Data Corporation, 1961-1966

### Subseries 3.1: General Materials, 1961-1962, 1964, 1966

Box 4, Folder 2	Newspaper clippings, 1961, 1963, 1969
Box 4, Folder 3	Promotional Materials, 1961, 1963
Box 4, Folder 4	Annual Reports, 1961-1962, 1964, 1966

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### Subseries 3.2: European Computer Industry Survey, 1961-1963

Box 4, Folder 5	Correspondence and Consulting Agreement, 1961-1962
Box 4, Folder 6	Reimbursement Issues, 1962-1963
Box 4, Folder 7	Grosch's Report on State of European Computer Industry, 1962
Box 4, Folder 8	Grosch Plant Visit Reports, 1962, 1993
Box 4, Folder 9	Independent Survey of European Industry, 1962
Box 5, Folder 1	Printed Materials, 1961, undated

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## Series 4: Other Employment, 1945-1997

Box 5, Folder 2	IBM-Watson Lab, 1945-1949
Box 5, Folder 3	Notes on IBM 360, c. 1960s
Box 13, Folder 3	IBM Clippings, 1945, 1949, 1954, 1973-1974, 1990, 1993-1994
Box 5, Folder 4	<a href="#">IBM Photographs, 1948-1952</a>
Box 5, Folder 5	Corporation for Economic and Industrial Research (CEIR), 1959
Box 5, Folder 6	Computer World, 1973-1976

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## Series 5: Professional Interests, 1954-1996

Box 13, Folder 4	General Computer Articles, 1967-1997
Box 5, Folder 7	IFIP (International Federation for Information Processing) 1962, 1965, 1992-1993
Box 5, Folder 8	Electronic Data Processing Ads, 1955, undated
Box 5, Folder 9	Computer Automation (newspaper clippings), 1954-1955
Box 5, Folder 10	UNIVAC, 1964
Box 5, Folder 11	<a href="#">Conferences, Symposia, Talks 1954, 1956-1957, 1959, 1961, 1966-1967</a>
Box 5, Folder 12	Tape of Dr. Paul Herget and Herb Grosch discussing Pons Baker comet, circa July 1954 RTC 703.1
Box 11, Folder 1	Tape of Dr. Paul Herget and Herb Grosch discussing Pons Baker comet, circa July 1954, OTC 703.1
Box 6, Folder 1	Computer Use Reports, 1959, 1970
Box 6, Folder 2	General Science Articles, 1959, 1968, 1995-1996
Box 6, Folder 3	Datamation, 1962, undated
Box 6, Folder 4	The Compleat Computer, 1976

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## Series 6: Computer History, 1945-1996

Box 6, Folder 5	Computing Pioneers, 1961-1996
Box 13, Folder 5	Computing Pioneers, 1981-1982, 1994, 1996
Box 6, Folder 6	L.J. Comrie, 1977, 1982-1983
Box 13, Folder 6	L.J. Comrie Photographs, 1945
Box 6, Folder 7	Early Computers, 1949-1996
Box 6, Folder 8	Computer Museum, 1980-1984
Box 12	Lantern Slides, undated

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