

(when choosing SEARCH a new window will open)

Introduction

The National Museum of American History's Chip Collection consists of individual donations of objects, images and documentation that traces the history of integrated circuits.

The Chip Collection is a continuing collection work-in-progress concerning a small part of the permanent collection of the Division of Information Technology & Society's Electricity Collections.

Scroll down to explore the details of this research collection . . . random order

• [RCA/David Sarnoff Research Center](#)

NMAH Accession 1984.0120

1802 Microprocessor ca. 1974; and the transistorized ukulele
reference photographs

• [Teal](#)

NMAH Accession 1984.00126

ca. 1950 man-made silicon & germanium crystals produced at Bell Telephone Laboratories. *Transcription with reference photographs.*

• [Adcock](#)

NMAH Accession 1984.0040

1954 Regency Transistor Radio. Link to larger images, provided as reference only. *With reference photographs.*

• [Danko](#)

NMAH Accession 1998.0191 & NMAH Archives Center #667

Stanislaus (Stan) Francis Danko was instrumental in the development and invention of ©AUTO-SEMBLY; as well as the designer for flexible circuits, and the solder dipped circuit process. Very early discrete transistors as well as pre and post 1958 technology.

• [ICE - Integrated Circuit Engineering Corporation](#)

NMAH Accession 1996.0089, 1996.3017 & NMAH Archives Center #600

A corporate 30 year history during the Cold War of training, consulting

engineering, construction analysis, cross reference documentation, related patents, and publications of and for the industry at large in the field of integrated circuits and semiconductors.

• [NCR - National Cash Register](#)

NMAH Accession 1990.0505, & NMAH Registrar - Supporting Documentation -

The 5385 (date code 8311F) Small Computer System Interface - **SCSI** - pronounced *scuzzy*. A new ANSI Standard protocol chip which enabled such diverse devices as disks, magnetic tapes, printers, and scanners to share a common interface to one or more computer systems that changed the face of computing. A single chip with links to original documents, transcriptions, images, Polaroid photographs of the "white boards" used in the design phase and an NCR corporate story.

• [Olson](#)

NMAH Accession 1998.0061 NMAH Registrar - Supporting Documentation -

C. Marcus Olson, of Du Pont 1936 - 1971, has been credited as the discoverer of the process to make silicon really pure - 0.001 percent impurity or less - the basic raw material of which are built the transistor and the integrated circuit and, indirectly, the computer and everything else made from microelectronic elements. This collection of documents has been literally transcribed with links to the originals and Dr. Olson's single vial of pure silicon.

• [EG&G Reticon](#)

NMAH Accession 1984.0062

Solid state image sensors - matrix, linear, smaller and longer arrays have been designed for applications ranging from OCR, facsimile, spectrophotography, production lines and to outer space and the ocean depths. (Ever scan or copy documents, images, etc. one of several important circuits accomplishes that trick!) Review Integrated Filters - Arrays ca. 1975-79, self-scanned solid state image sensors - one-dimensional row, or linear array, and a two-dimensional matrix, or area array.

• [AT&T - BELL Laboratories](#)

NMAH Accession 1984.0321

Digital integrated circuits from the processor of the SAGE (StrAtegic Ground Environment) system, which was used to control the country's first anti-aircraft defense, guided missile system. *Transcription.*

• [Synertek, Inc.](#)

NMAH Accession 1984.0154

The SY6502 (64 KB addressable memory, on-chip clock, 56 instructions) Microprocessor of the SY6500 8-bit family. *Transcription*

• [IBM, Corp.; James Watson Research Center](#)

NMAH Accession 1984.0153

The 608 calculator announced 1955 was the first fully transistorized calculator to be placed into production and sold commercially. Other objects in this collection represent the technical progression of the 1960s-

"... the words calculator and computer were used interchangeably ... the distinction between the terms is still ambiguous." E.W.Pugh March 12, 1984

Schreiner

NMAH Archive Center #692

(conflict of numbering with the Richard Adlard Collection)

Don C. Hoefler's Silicon Valley tabloid Microelectronics News, original issues 1975 - 1986. Over 3,000 scanned pages of Hoefler's original tabloid.

Proctor-McGinnes

NMAH Accession 2003.0029

Organic Semiconductor (I/O), 1973 a melanin (polyacetylenes) bistable switch. The subsequent development of batteries is based on this technology, and closely parallels that of main-line semiconductor physics.

TI - Texas Instruments

NMAH Accession 1984.0128, 1987.0487 & NMAH Archive Center #692

(corrected archive number: 697)

Lists of objects, documentation and a variety of photographs. A collection that traces the infancy and growth of integrated circuit technology at Texas Instruments.

ZILOG-Exxon

NMAH Accession 1984.0123

Collection record images of the Z80 Microprocessor. Reference only. This object had been on exhibit in the 1980s within the Microelectronics subject area at the National Museum of American History

Chip Talk

NMAH Reference

Past and somewhat recent vocabulary and acronyms used by the industry at large. This reference is not definitive, though it may help you define several usages within integrated circuit terminology.

Chip Art

NMAH Invisible Collection

An important though unusual aspect of the history of integrated circuit technology is buried deep inside many chips, we call this chip art. You will discover actual mask alignments, signatures and initials of the designer or perhaps the engineer and the chip art of those who have left their mark for posterity. Some are satirical quips and some are recognizable cartoon characters we have all become familiar with. Included is a link to our collaboration involving chip art with Dr. Michael W. Davidson of Florida State University.

Patents

NMAH Reference Collection

A comprehensive list linking to hundreds of patents with the cover graphic. We have literally transcribed the numbers, names, inventors, filing dates,

in matching your research to innovation and invention through the developments within integrated circuit technologies.

NOTE: The patent selection list is a **very large file**, 2MB.
Download time at 28.8 is approximately 2.275 minutes.

People

Website Reference

We have listed personalities on this site represented in the history of integrated circuit technology in a single category to make your research faster. Typically there is a small biographical sketch and an image with related documentation. It is not a definitive list. We will include as many personalities as possible as time permits.

Pictures

Website Reference

This site's reference pictures, diagrams, x-rays, thumbnail selections, and in some cases actual logbook pages in a single category to make your research faster.

Remember - Copyright fair use rules must be recognized.

STATE OF THE ART Stan Augarten

Ticknor & Fields, New Haven and New York, 1983 - ISBN 0-89919-195-9

NMAH Reference Collection

One of many pictorial histories relating to the evolution and development of the integrated circuit – most notably the microprocessor. Includes literal transcriptions, actual pages and referenced images. *This book is provided for general reference. The National Museum of American History and the Smithsonian Institution make no claims as to the accuracy or completeness of this work.*

Oral History J.C. McVickers

NMAH Reference Collection - NMAH Archive Center - IN PROCESS

Due to the popularity of this particular history we are providing what we have prepared at this time concerning the McVickers' material. *The publication: WESTINGHOUSE TECHNOLOGY is provided for general reference. The National Museum of American History and the Smithsonian Institution make no claims as to the accuracy or completeness of this work.*

Numbering System

Website Reference

Defines how the objects and supporting documentation have been numbered. Includes contacts for scheduling appointments or receiving copies of research material.



[Home](#)

[Search](#)

[Chip Talk](#)

[Chip Art](#)

[Patents](#)


[People](#)

[Pictures](#)

[Credits](#)

[Copyright](#)

[Comments](#)

 Smithsonian Institution
[Smithsonian Institution Privacy](#)