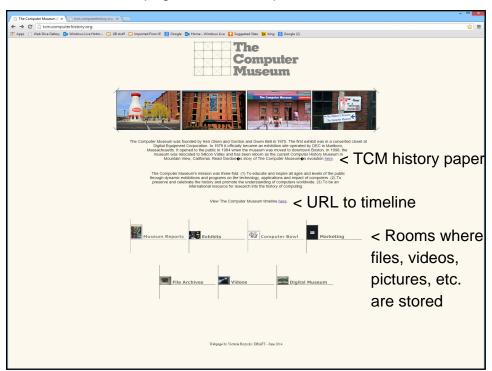This is a tour of the site given by GBell as guide and docent.
The tour alternately goes from rooms e.g. Museum Reports where stuff is stored
to a Timeline, that has icons at various times when various events happened.
The first two pages show the two ways to tour: rooms and time events.

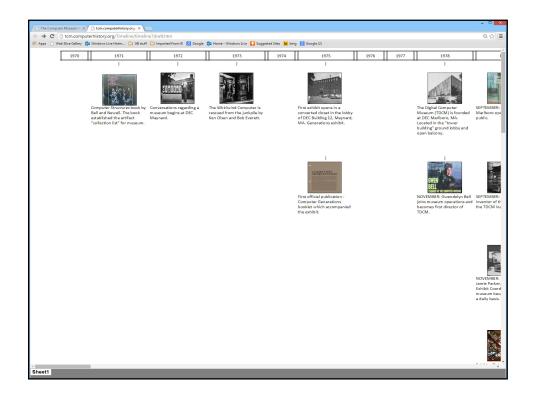# A Click by Click Tour of TCM.ComputerHistory.org

35th Birthday of the Computer History Museum

Mountain View, CA

26 September 2014

Gordon Bell

This is the main page for The Computer Museum with a bunch of rooms.

< TCM history paper

< URL to timeline

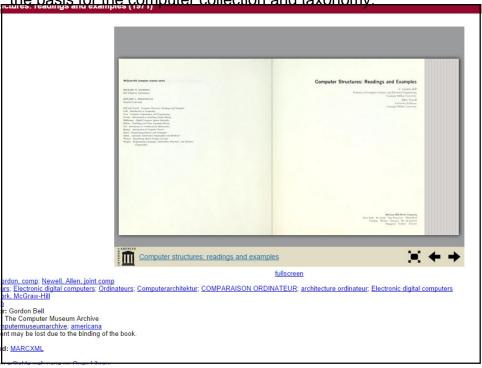< Rooms where files, videos, pictures, etc. are stored

Note it points to Reports, Exhibits, Computer Bowl, File Archive
Video tours and lectures, and the first museum at Digital Equipment Corp.
Note the pointer here to the events of its history timeline.
http://tcm.computerhistory.org/Timeline/timeline7draft.htm

The timeline from 1970 is a great way to visit the Museum and look at various events in the Museum's history as a function of time.
It contains pointers to: lectures, exhibit openings, books, new initiatives, etc.
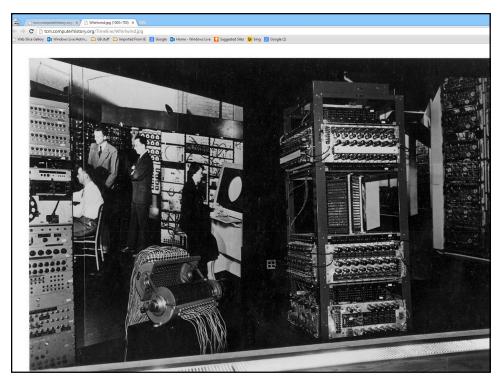

For example in 1971, the book icon retrieves this book which was the basis for the computer collection and taxonomy.

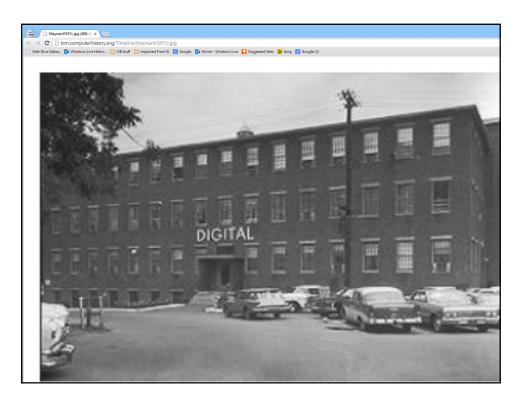Ken Olsen was one of the Museum's founders.

Ken Olsen in front of Digital's first offices in Maynard, MA

Ken built the first computer, MTC to test the core memory invention.
The MIT Whirlwind is one of the first artifacts that Ken collected for the museum.

Building 12 of Digital Equipment Corp. aka DEC where the company first located and which held Ken's (and my) office. An exhibit was created for the coat closet in the lobby in 1975.

Note the brochure for the exhibit lobby. It held logic and memory technologies of the first four hardware generations: tubes, transistor, ICs, and micros

The brochure that you can download... that has the NSF first tree relating all the first computers.

Note the generations and also the influences on the first minicomputers.

Switching back to the navigation page to walk among versus our traversing the timeline.

Here's what you see for Museum Reports: The TCM reports for 1975 -88 and Annual Reports 1988-1998 (individually and compiled)

The combined reports are about 700 pages...

Here's the first report 1982. It shows the taxonomy of the collection and time when these artifact types appeared.

From the beginning, the goal was to make sure we had the "firsts"...
this applies to the first board. Bachman--first database and 2014 winner
of National Medal of Technology. Everett was head of MITRE and Whirlwind.

Cragon-TI ASC head; Les Hogan, pres. of Fairchild & Motorola; Knowles & Johnson, DEC VPs; Lacey, CDC VP: Michael, father of supers; Noyce invented ICs; Olsen, DEC founder and CEO; Randell early computer historian and CS prof; Spock, Pres. of Children's Museum; Tomash, founder/CEO Dataproducts; and Tsongas, US senator.

Back and a look at the File Archives. Three groupings:
General overall, Gwen and Gordon Bell, and Gardner Hendrie as Chairman

The Computer Museum

The Computer Museum was founded by Ken Olsen and Gordon and Gwen Bell in 1975. The first exhibit was in a converted closet at Digital Equipment Corporation. In 1979 it officially became an exhibition site operated by DEC in Marlboro, Massachusetts. It opened to the public in 1984 when the museum was moved to downtown Boston. In 1998, the museum was relocated to Silicon Valley and has been reborn as the current Computer History Museum in Mountain View, California. Read Gordon�s story of The Computer Museum�s evolution here.

The Computer Museum's mission was three-fold: (1) To educate and inspire all ages and levels of the public through dynamic exhibitions and programs on the technology, applications and impact of computers. (2) To preserve and celebrate the history and promote the understanding of computers worldwide. (3) To be an international resource for research into the history of computing.

View The Computer Museum timeline here.

Museum Reports   Exhibits   Computer Bowl   Marketing

File Archives   Videos   Digital Museum

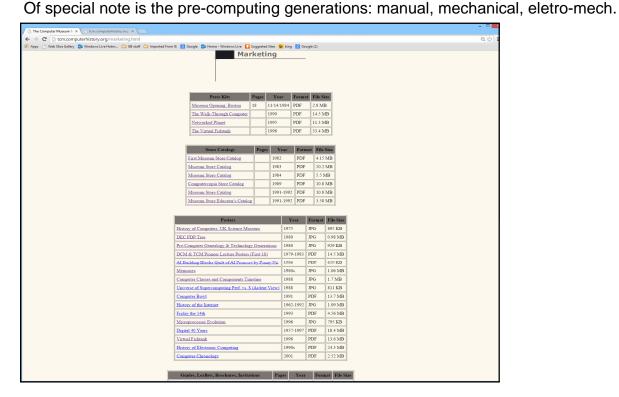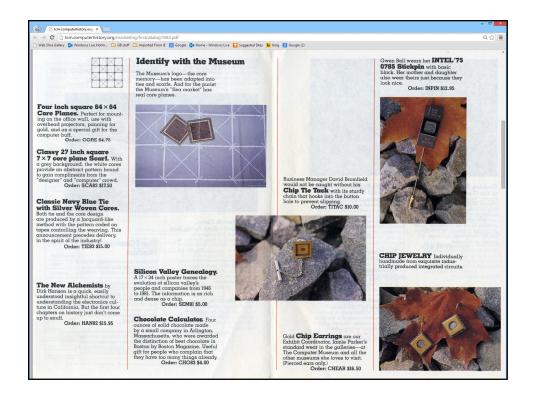Note the paper Out of a Closet is Gordon Bell view of TCM's history.
There are various timelines, 200 letters of mine soliciting support, etc.
Hendries saved board minutes 2121 pages in all.

	Pages	Year	Format	File Size
PHSColograms - Science in Depth Brochure	8	1990	PDF	3.39 MB
Progress Report for DEC Museum Project	40	1975	PDF	3.34 MB
Published by TCM before 1984	12	1980s	PDF	25.8 MB
Published by TCM after 1984	57	1980s-1990s	PDF	33.7 MB
SC97 - History of the Internet Poster Items from Supercomputer97	24	1997	PDF	3.89 MB

Gwen (and Gordon) Bell File Archives	Pages	Year	Format	File Size
Out of a closet: The Origin of The Computer Museum (CGB)	34	2011	PDF	2.6 MB
Timeline of Museum History 1975-2010 (DEC, DCM, TCM, TCM/HC, CHM	17	1975-2010	PPT	870 KB
Timeline of Museum History 1975-2010 (DEC, DCM, TCM, TCM/HC, CHM	17	1975-2010	PDF	741 KB
Tour of TCM for Mass High Tech Newspaper (CGB)	1	1/1985	JPG	1.2 MB
Museum Functions Diagram: Collections, Exhibits, Warehouse, Programs, Members	1	1983	JPG	170 KB
Plans for a Museum at Digital, Organization, Taxonomy, Future 17 docs (GKB)	111	1973-1983	PDF	204 KB
DCM/TCM Plans to 1990-Ops at Digital, Report to DEC (GKB)	139	1979-1983	PDF	316 KB
Solicitation Letters to Friends & Computer Industry Luminaries for Support (CGB)	204	1984	PDF	473 KB
Pioneer Lecture Letters Atanasoff-Zuse (CGB)	41	1971-1996	PDF	141 KB
Computer Pioneers and Pioneer Computers Videos: Script and Figures (CGB)	66	1997	PDF	867 KB
TCM Forrester Reception Photos	50	1982	PDF	2.43 MB
TCM Reports Highlights (Text) See Reports for all content	221	1982-1988	PDF	1.58 MB
Proposals for a Silicon Valley Computer Museum memos (GKB & Len Shustek)	20	1995-1998	PDF	455 KB

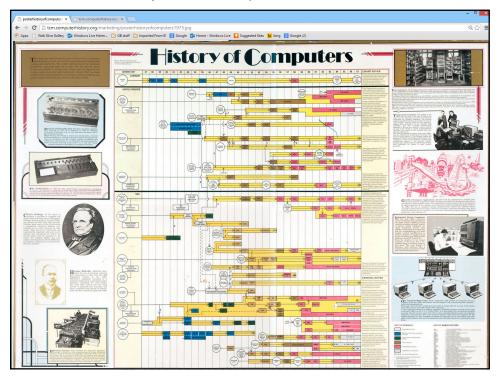| Gardner Hendrie Files	Pages	Year	Format	File Size
Annual Report Drafts	9	1988	PDF	157 KB
Board Address Lists	74	1987-1992	PDF	1.8 MB
All Board and Exec Comm. Meetings	2121	1989-1994	PDF	87 MB

Let's look at marketing material: press kit for openings, store catalog, and wall sized posters of technology and companies. Note these are large enough that they can be printed in color and used forever.
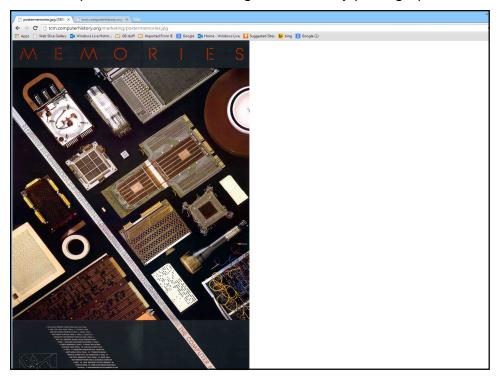Of special note is the pre-computing generations: manual, mechanical, eletro-mech.
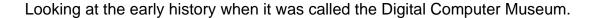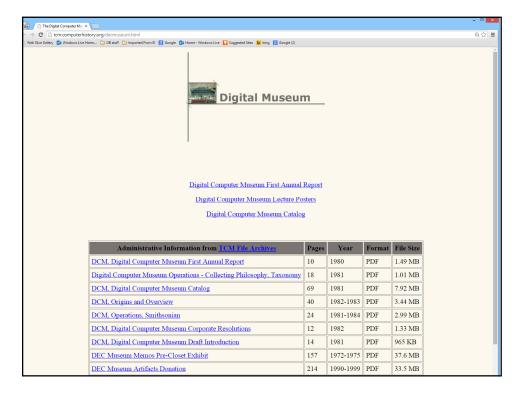

Store catalog with TCM's own ties, belts, scarves, and jewelery.

This wonderful poster of the beginning of computing through 1960 needs to be on everyone's desktop.
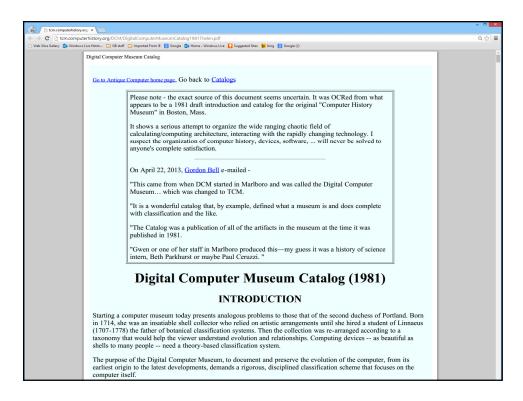

This is a poster of Memories... again beautifully photographed.

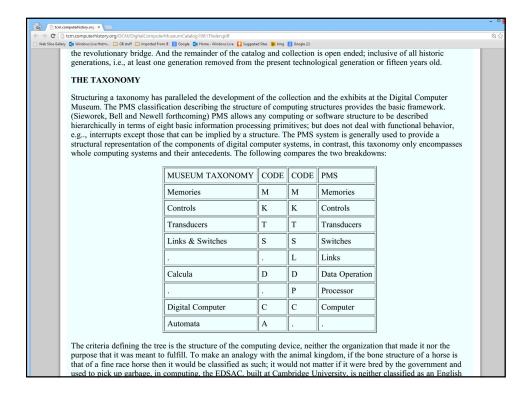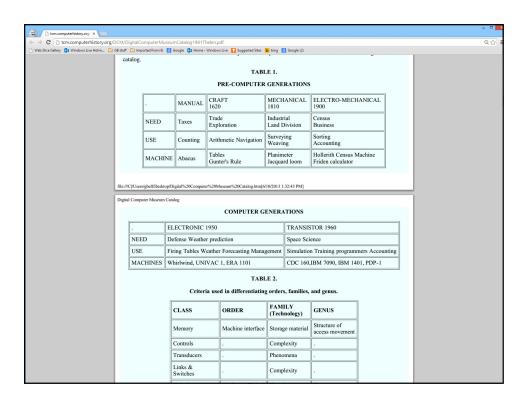Looking at the early history when it was called the Digital Computer Museum.

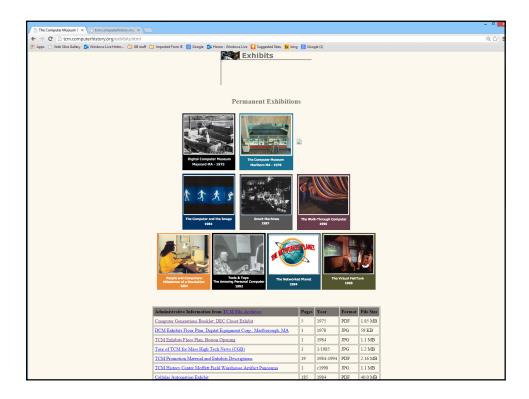This is the Museum catalog that listed the museum's holdings in 1981. The introduction needs to be required reading.

Linnaeus established the basic tree structure taxonomy for natural history.
TCM hoped to establish the structure for computing based on Bell and Newell
taxonomy of processors, memories, switches, links, transducers, controls, and
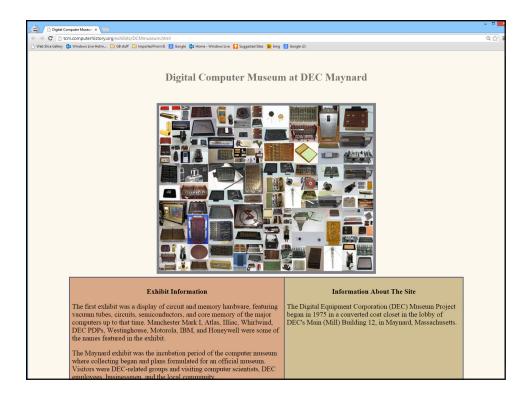Data operations. Thus TCM artifacts are classified by its functional type.

the revolutionary bridge. And the remainder of the catalog and collection is open ended; inclusive of all historic generations, i.e., at least one generation removed from the present technological generation or fifteen years old.

THE TAXONOMY

Structuring a taxonomy has paralleled the development of the collection and the exhibits at the Digital Computer Museum. The PMS classification describing the structure of computing structures provides the basic framework. (Siework, Bell and Newell forthcoming) PMS allows any computing or software structure to be described hierarchically in terms of eight basic information processing primitives; but does not deal with functional behavior, e.g.., interrupts except those that can be implied by a structure. The PMS system is generally used to provide a structural representation of the components of digital computer systems, in contrast, this taxonomy only encompasses whole computing systems and their antecedents. The following compares the two breakdowns:

MUSEUM TAXONOMY	CODE	CODE	PMS
Memories	M	M	Memories
Controls	K	K	Controls
Transducers	T	T	Transducers
Links & Switches	S	S	Switches
.	.	L	Links
Calcula	D	D	Data Operation
.	.	P	Processor
Digital Computer	C	C	Computer
Automata	A	.	.

The criteria defining the tree is the structure of the computing device, neither the organization that made it nor the purpose that it was meant to fulfill. To make an analogy with the animal kingdom, if the bone structure of a horse is that of a fine race horse then it would be classified as such; it would not matter if it were bred by the government and used to pick up garbage, in computing, the EDSAC, built at Cambridge University, is neither classified as an English

And by the technological generation: when it was invented.

catalog.

TABLE 1.

PRE-COMPUTER GENERATIONS

.	MANUAL	CRAFT 1620	MECHANICAL 1810	ELECTRO-MECHANICAL 1900
NEED	Taxes	Trade Exploration	Industrial Land Division	Census Business
USE	Counting	Arithmetic Navigation	Surveying Weaving	Sorting Accounting
MACHINE	Abacus	Tables Gunter's Rule	Planimeter Jacquard loom	Hollerith Census Machine Friden calculator

file:///C|/Users/gbell/Desktop/Digital%20Computer%20Museum%20Catalog.htm[6/10/2013 1:32:43 PM]

Digital Computer Museum Catalog

COMPUTER GENERATIONS

.	ELECTRONIC 1950	TRANSISTOR 1960
NEED	Defense Weather prediction	Space Science
USE	Firing Tables Weather Forecasting Management	Simulation Training programmers Accounting
MACHINES	Whirlwind, UNIVAC 1, ERA 1101	CDC 160,IBM 7090, IBM 1401, PDP-1

TABLE 2.

Criteria used in differentiating orders, families, and genus.

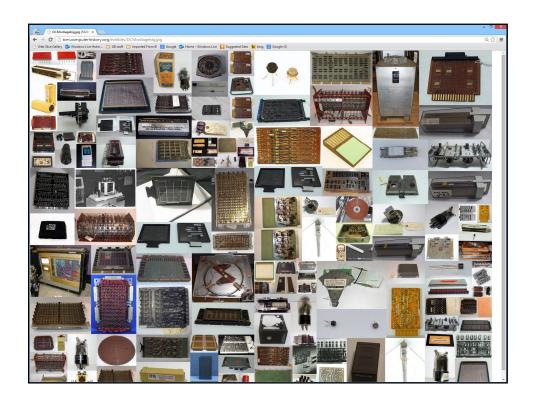| CLASS	ORDER	FAMILY (Technology)	GENUS
Memory	Machine interface	Storage material	Structure of access movement
Controls	.	Complexity	.
Transducers	.	Phenomena	.
Links & Switches	.	Complexity	

The exhibits navigation page allows one to peal off and visit an exhibit.
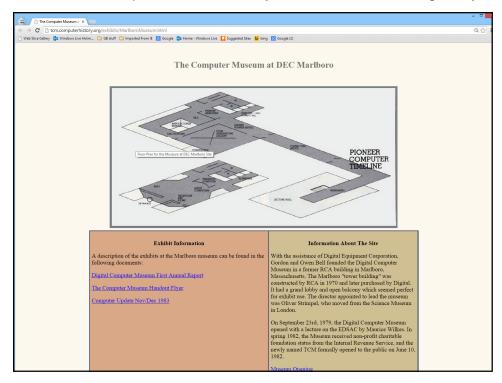

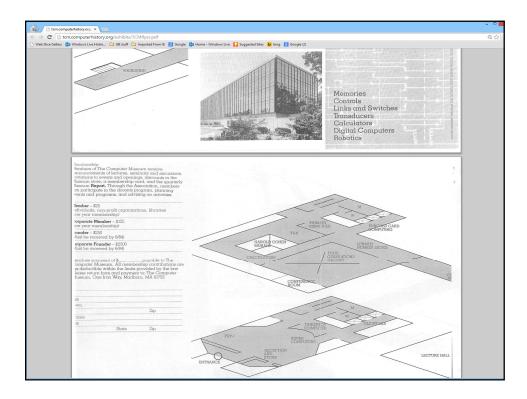Lookie. Here's are the objects in the 1975 DEC closet exhibit.

Let's go to Marlboro at the first public opening on 23 September 1979.
Maurice Wilkes spoke. Here's the layout in the DEC building lobby that was the museum.
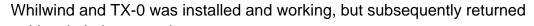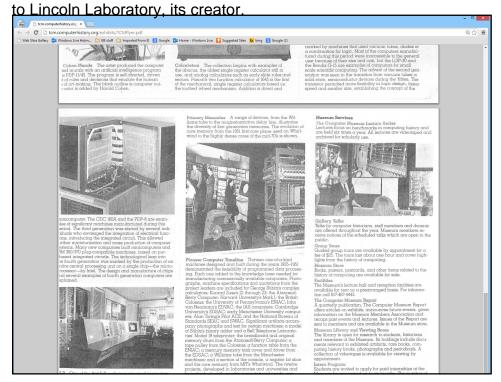
The Vincent Kling architected Madison Ave. building in the apple orchard of Marlborough MA that RCA Computer Div. built and DEC bought after RCA left computing.
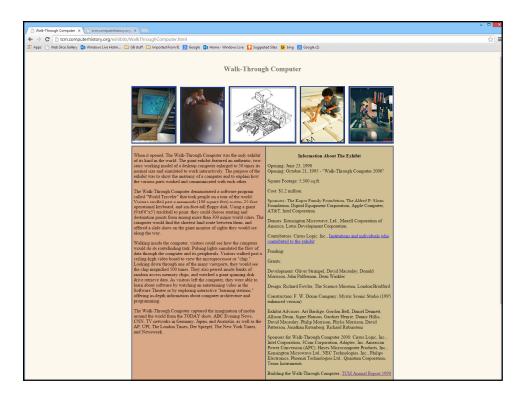

Look at some key artifacts we opened with: CDC 6600 no. 1 from Lawrence Livermore National Lab; replica of Hollerith's first card tabulator; and a Lehmer number Seive.

Whilwind and TX-0 was installed and working, but subsequently returned to Lincoln Laboratory, its creator.

The walk through exhibit has pointers to a 24 minute movie about the exhibit.

Here's the bigger than life sized computer.

A visitor's guide to the parts... and what they do. Note scale.

Version 2.0 came out in 2000 with updated monitor, cpu, CD, etc.

Now back to the timeline to navigate some events that happened in time.

The logo of the museum was a 3 wire core memory... as a pattern you can make anything from ties to wallpaper.

The Computer Museum's symbol is a core memory.
Core memories provided computers with the first
random access, high speed, reliable storage.

Note computer bowl. Clicking gets you the Computer Bowl index page

The Computer Bowl ran 10 years from 1988-1998.

It was captured in video and is availble.

Note the book of questions, and a "baseball card" set of the 1994 players.

Back to the timeline for navigation.

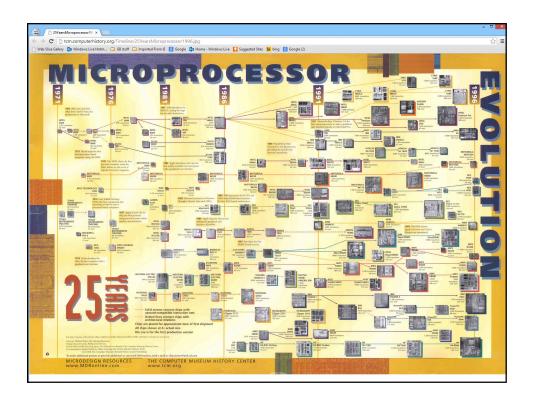The Museum published this Guild to Kid's Software that was associated with the exhibit opening.

Note the poster on 25 years of the micro. Clicking on it gets poster.
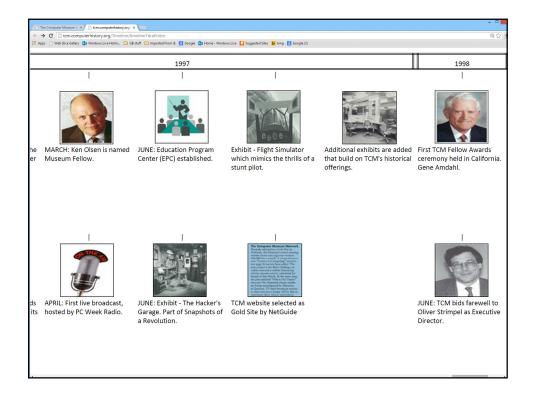
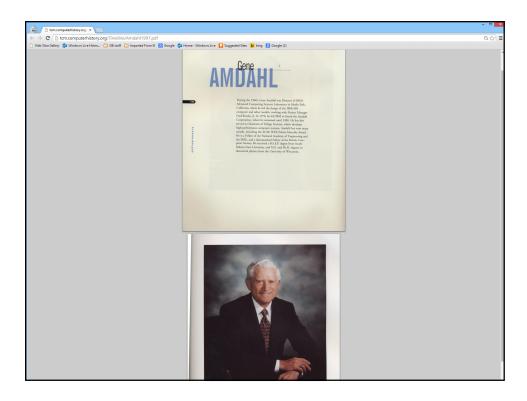Note the trailer moving artifacts from Boston to Moffet Field.

Gets poster.

Gene Amdahl's page that was published in Wizards and Wonders.

Finally the move to Moffett Field and the Computer History Center of TCM.