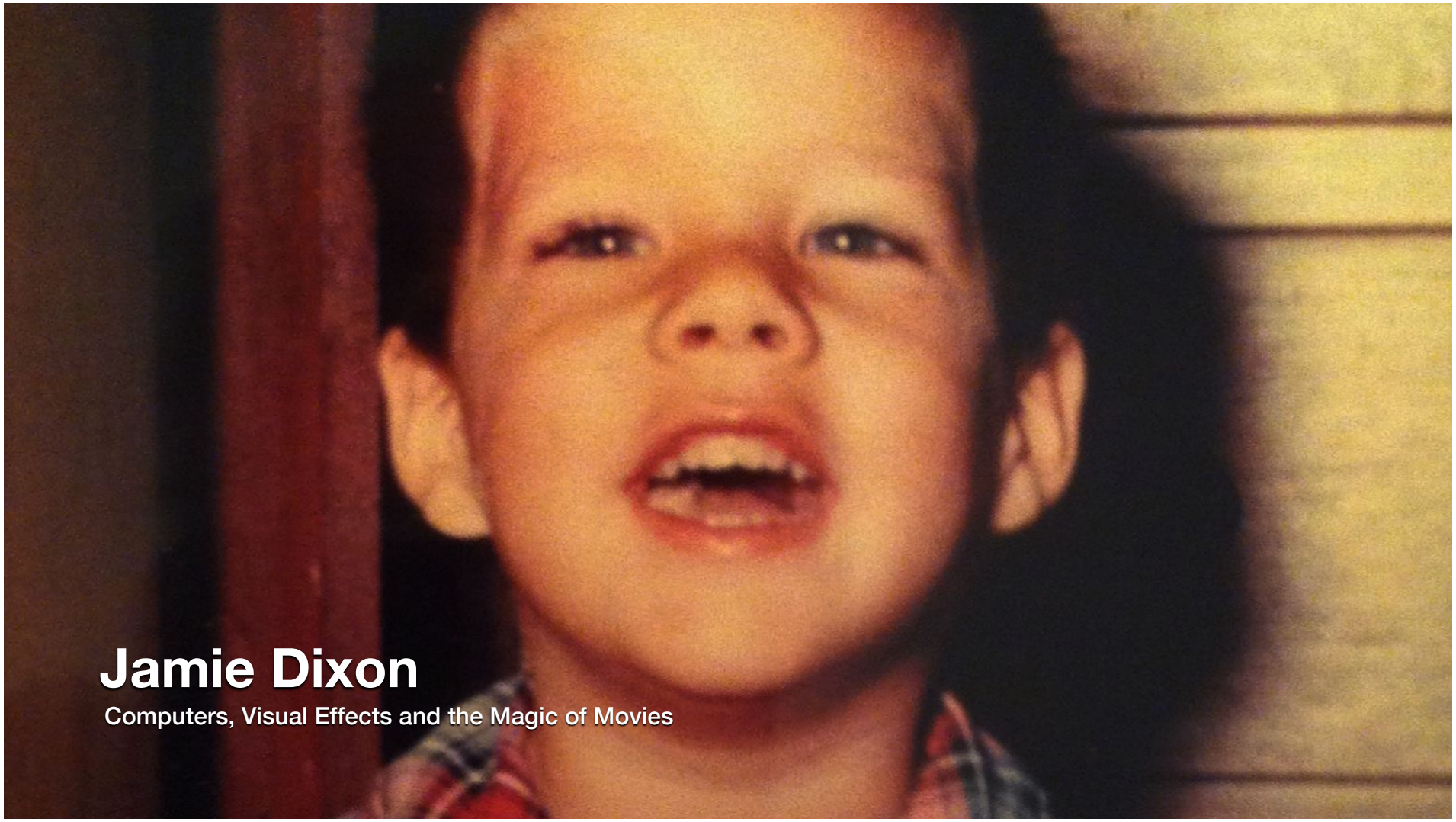
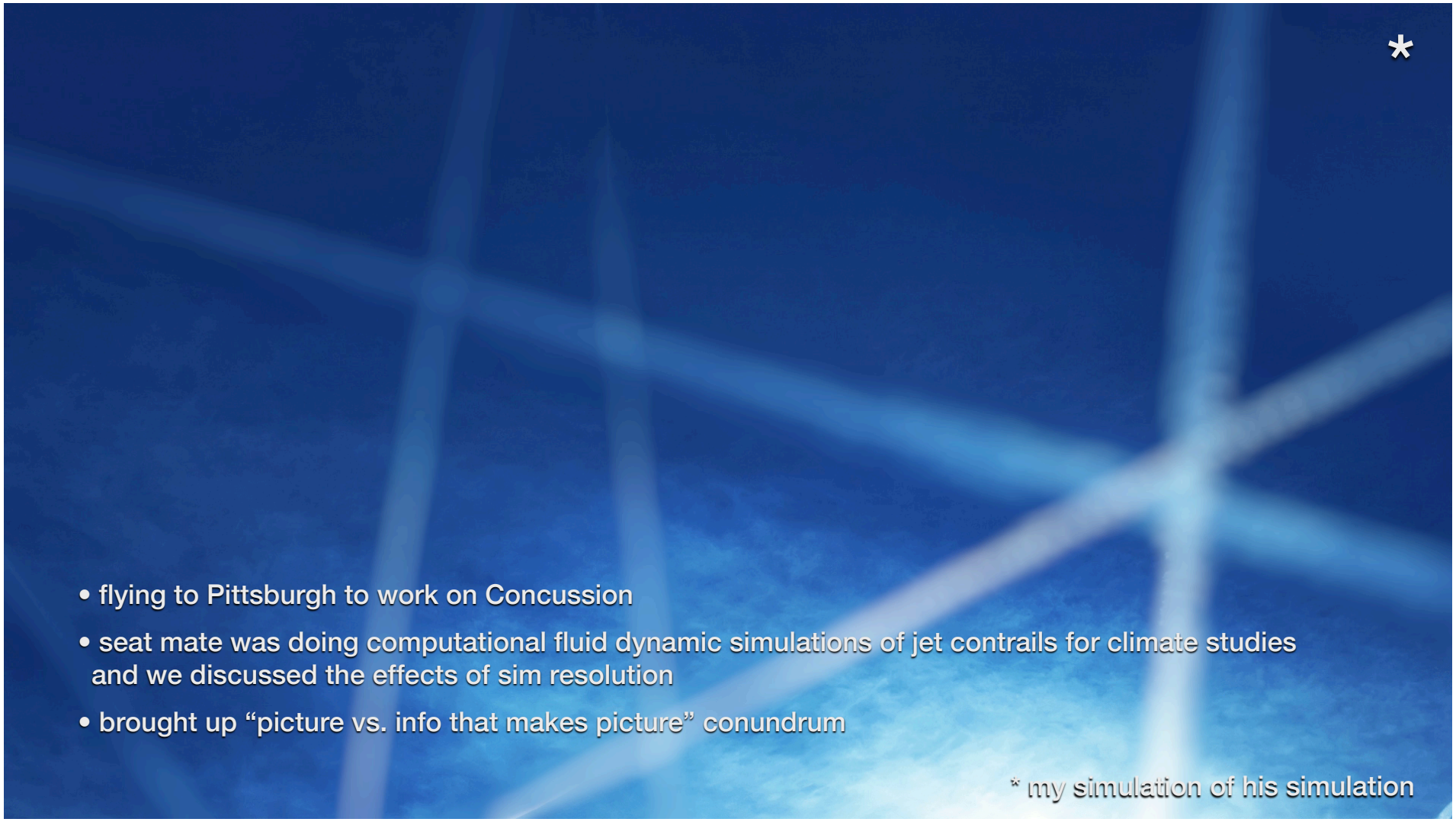
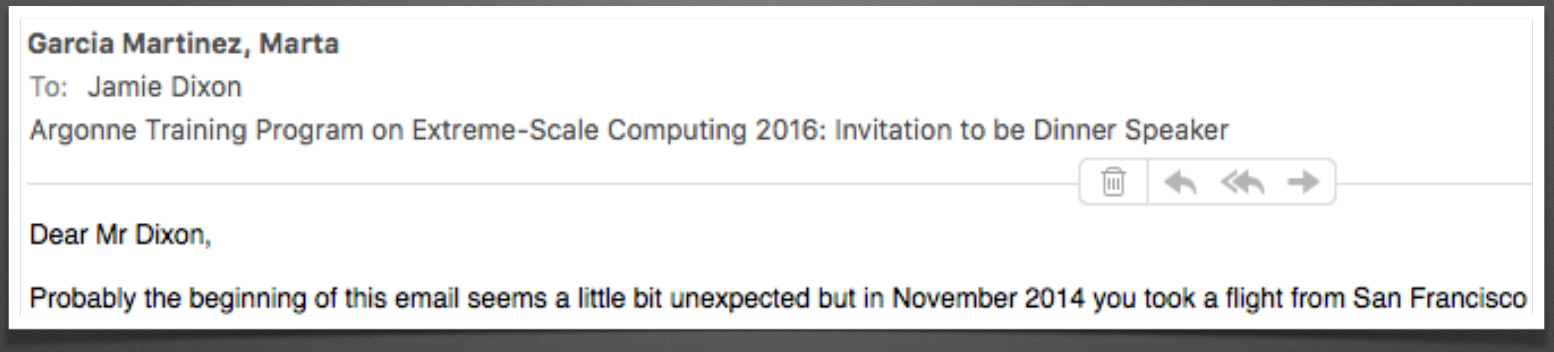
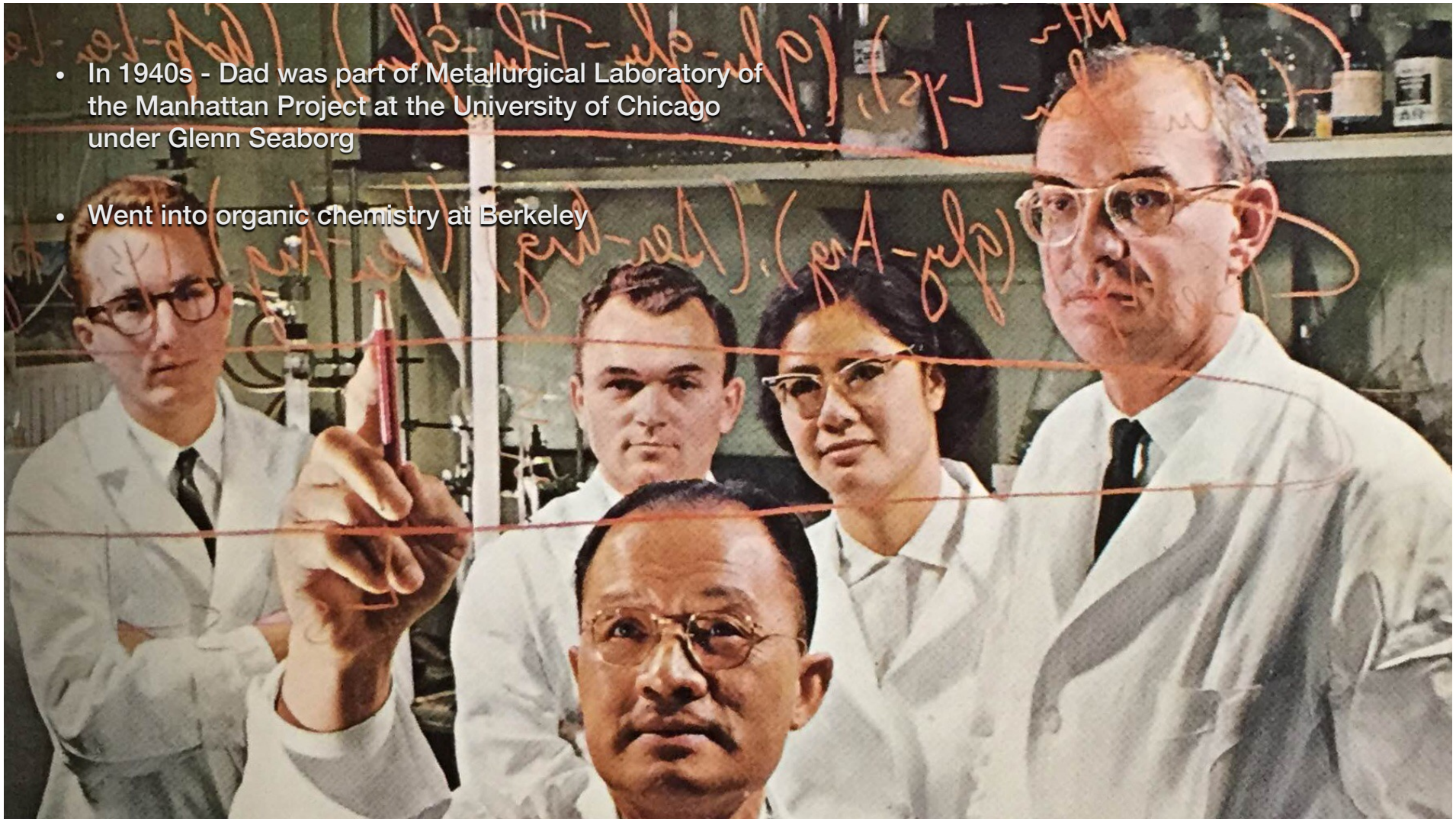

Jamie Dixon
Computers, Visual Effects and the Magic of Movies

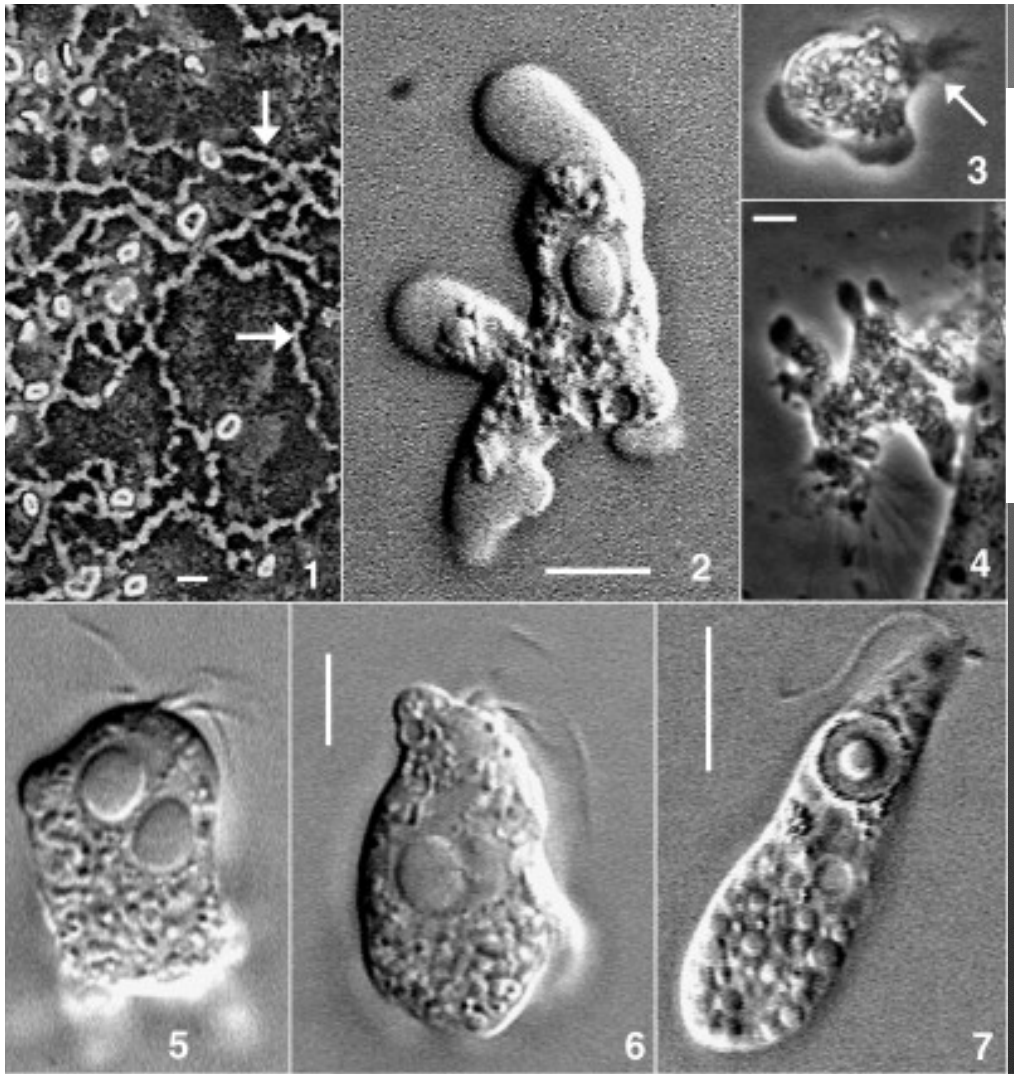

*
• flying to Pittsburgh to work on Concussion
• seat mate was doing computational fluid dynamic simulations of jet contrails for climate studies and we discussed the effects of sim resolution
• brought up “picture vs. info that makes picture” conundrum
* my simulation of his simulation



18 months later…

- grew up In Berkeley
- both parents Phd


• In 1940s - Dad was part of Metallurgical Laboratory of the Manhattan Project at the University of Chicago under Glenn Seaborg
• Went into organic chemistry at Berkeley



J Eukaryot Microbiol. 2005 Nov-Dec;52(6):523-31.

Morphologic and molecular identification of Naegleria dunnebackei n. sp. isolated from a water sample.

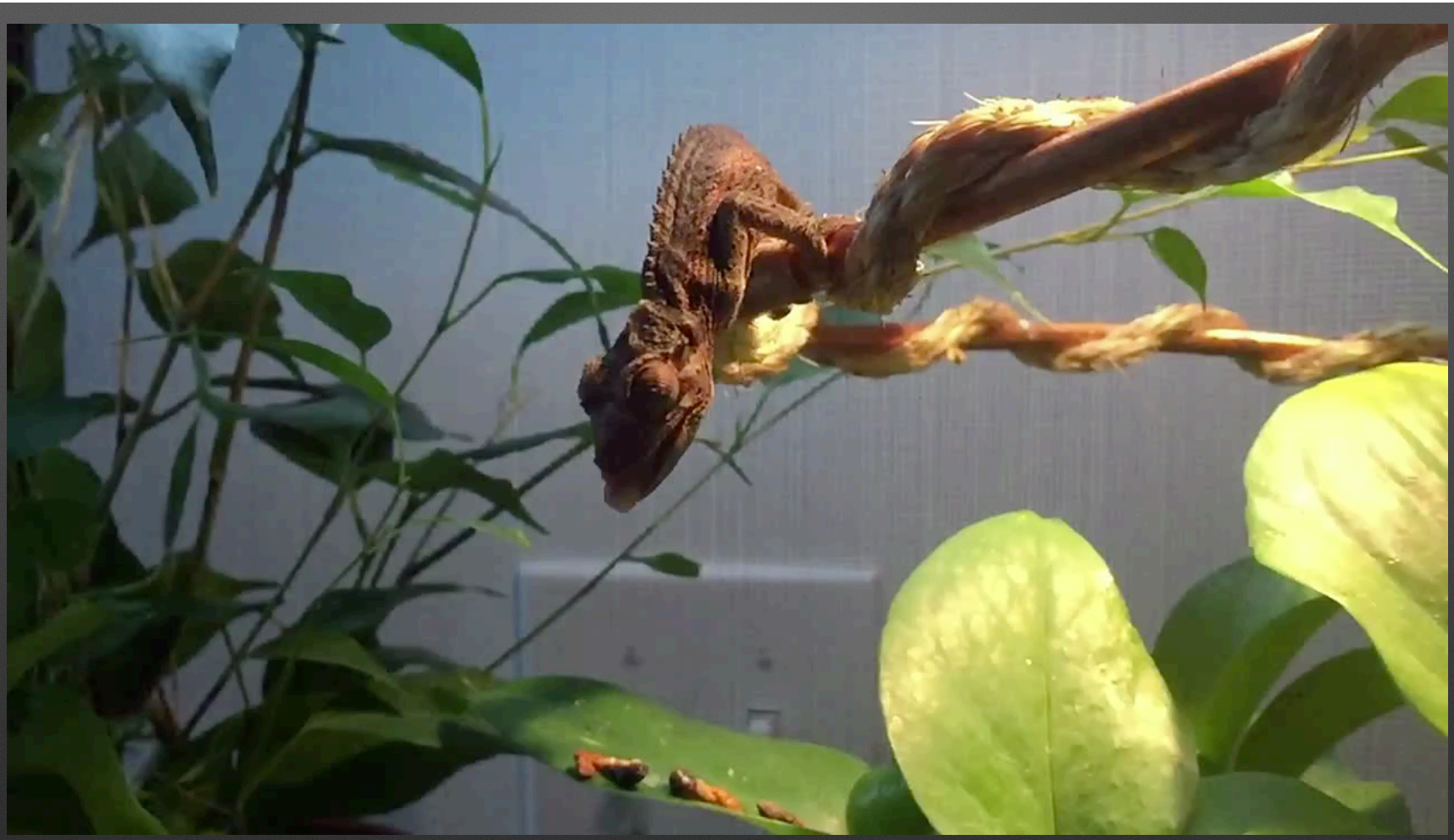
Visvesvara GS[1], De Jonckheere JF, Marciano-Cabral F, Schuster FL.

⊕ Author information

Abstract

Naegleria dunnebackei n. sp., a new species of the free-living amoeboflagellate Naegleria, is described in this report. The organism was isolated from a water sample taken from drinking troughs associated with cases of primary amoebic meningoencephalitis in cattle at a ranch in southern California. The isolate grew at, but not above 37 degrees C, and did not kill young mice upon intranasal inoculation suggesting that it was not pathogenic. The new species combines morphological features of non-pathogenic Naegleria gruberi and pathogenic Naegleria fowleri.

Mom has an ameba named after her



never much good at school - thought I wanted to be a herpetologist

I was into -

- Creature Features
- Viewmaster
- Stereopticon
- Super 8 Home Movies
- Thunderbirds

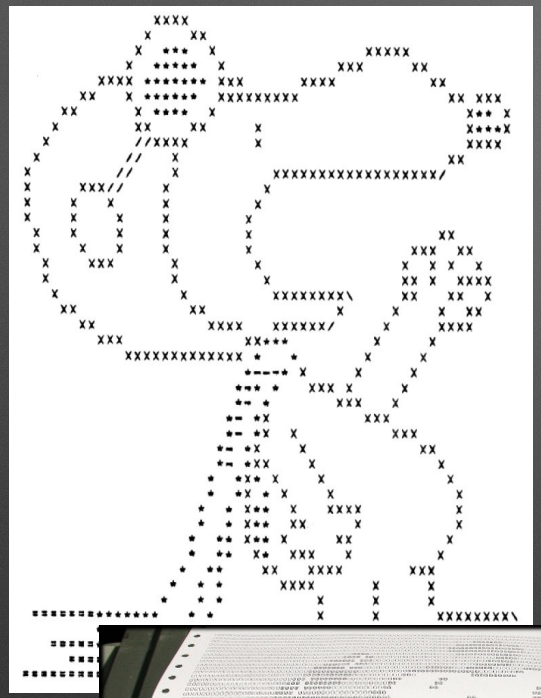
I was fascinated by how people could be so emotionally effected by a strip of plastic running in front of a light bulb

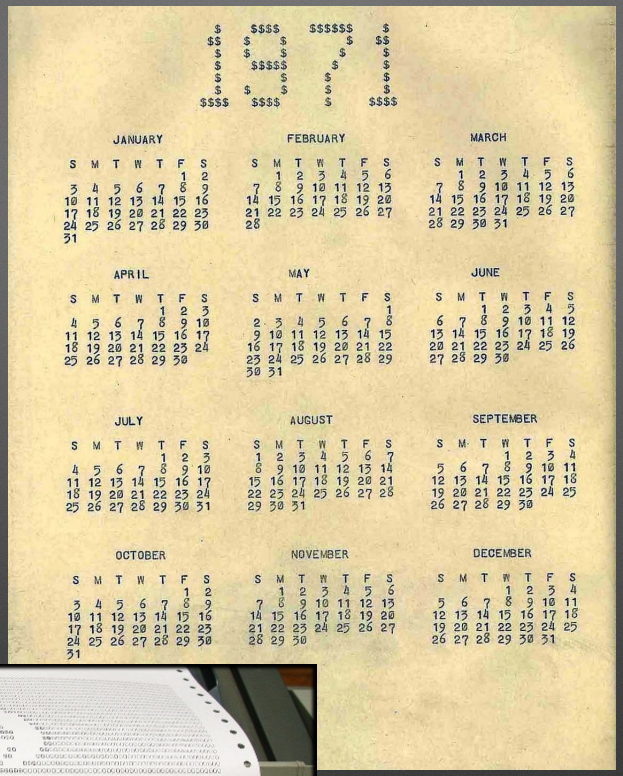

a little perspective…
looking back it seems incredibly primitive

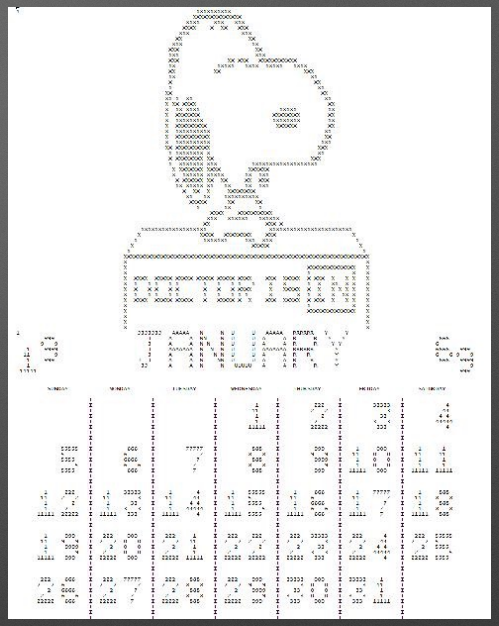

but from there it was so futuristic

1st computer experience

in 7th grade we used a teletype to modem into Lawrence Hall of Science computer







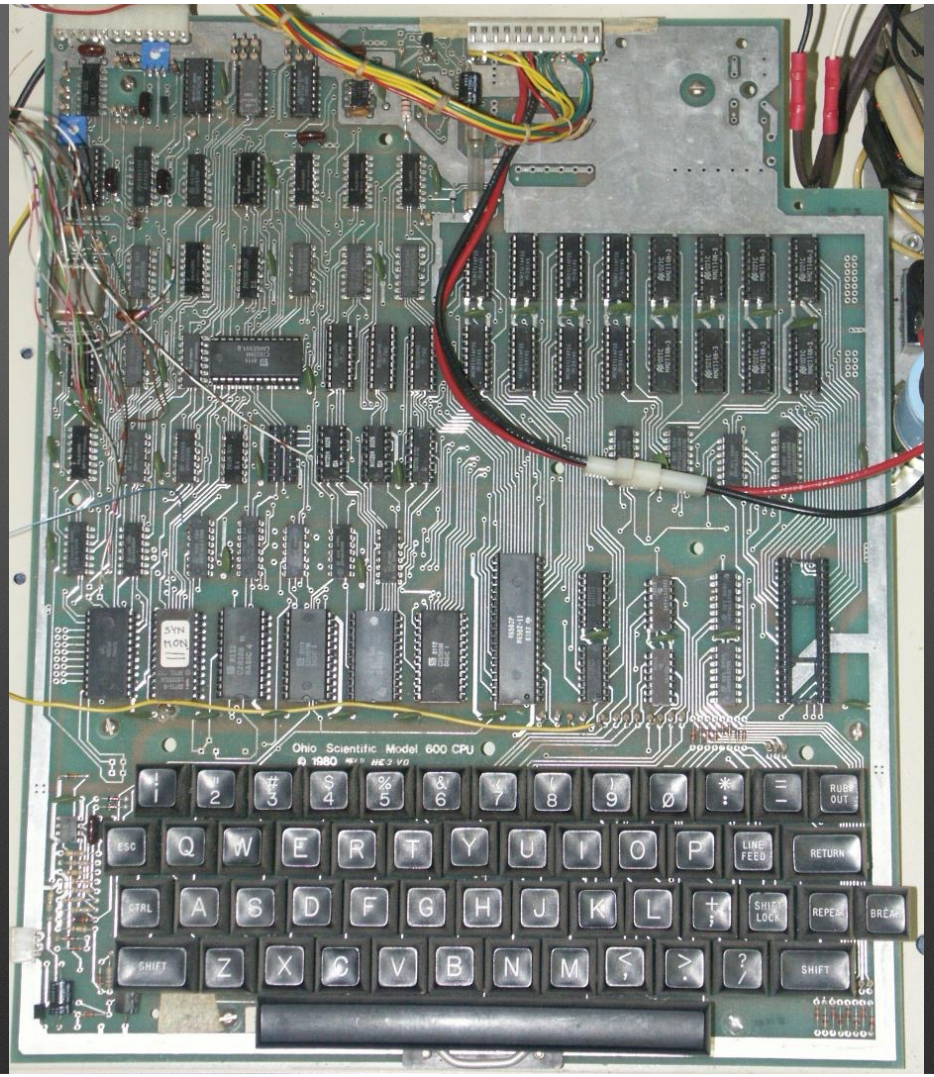
we printed snoopy calendars

next computer experience

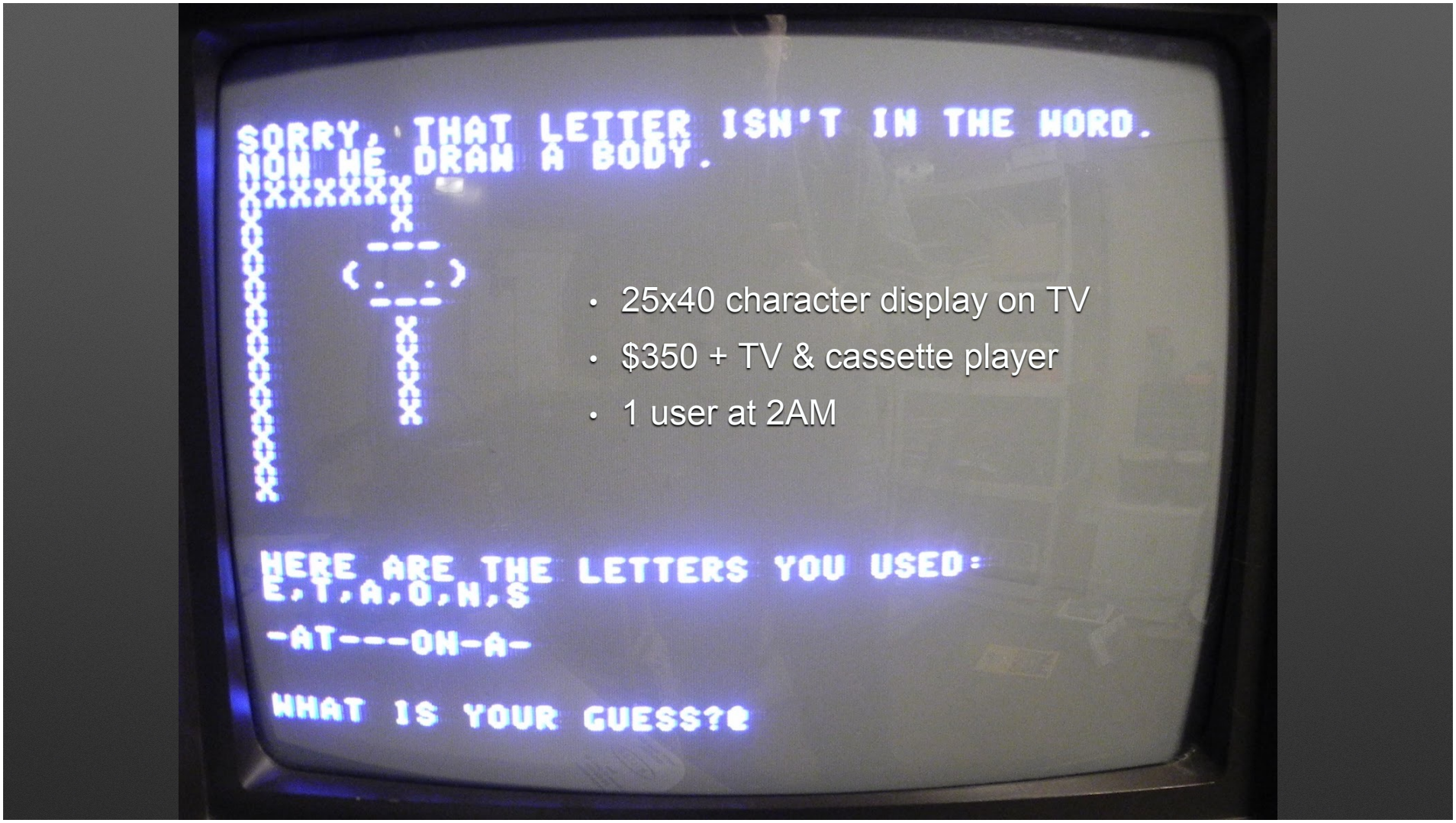
- CS at Cal Berkeley early 80’s
- VAX PDP 11/44 - 11/70
- DEC 10


Lear Seigner ADM 3A terminal
programming in pascal
2AM to get terminal time / lucky if only 40 other users logged in

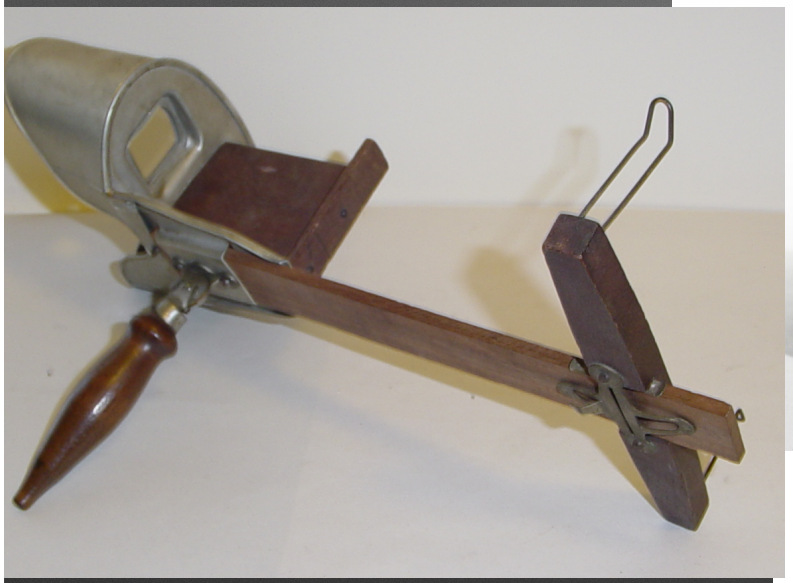
first personal computer

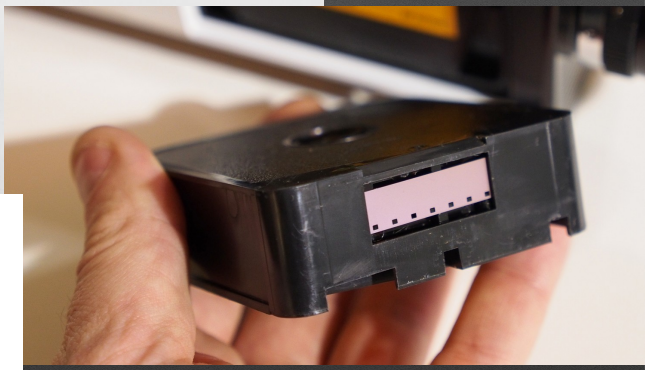


- Ohio Scientific Superboard II
- 8k Basic on ROM / 4k RAM
- 1 Mhz 6502 processor
- Kansas City standard 300 baud modem to cassette tape


SORRY, THAT LETTER ISN'T IN THE WORD.
NOW WE DRAW A BODY.
HERE ARE THE LETTERS YOU USED:
E,T,A,O,N,S
-AT---ON-A-
WHAT IS YOUR GUESS?
• 25x40 character display on TV
• $350 + TV & cassette player
• 1 user at 2AM


discovered computer graphics
• Tektronix 4013 vector display
• pascal camera projection solution
• models sketched on graph paper - coordinates typed into program
TEKTRONIX





- printed stereo views for stereopticon from 1900-ish

- animation by triggering cable release on super 8 camera

We're offering you our SB-80 system in either 5 1/4" or 8" disk drives, your choice. Either way your system comes with a full size (12" diagonal) non-glare tiltable green screen with 24 lines by 80 character format. Its multi-character set offers blinking cursor, underlining, reverse video, and half and zero intensity. The movable, detachable keyboard has a numeric pad with cursor control and function keys.

■ Single Board Technology ■ CP/M® Operating System
■ 4 MHz Z80A CPU ■ 64K 200ns Main Memory
■ 8-Inch Dual Density Floppy Drives
■ 5 1/4-Inch Dual Density Floppy Drives
■ 2-Serial Ports ■ 2-Parallel Ports
■ 4-Counter/Timers ■ Expandable

For further information about this limited offer call or write:

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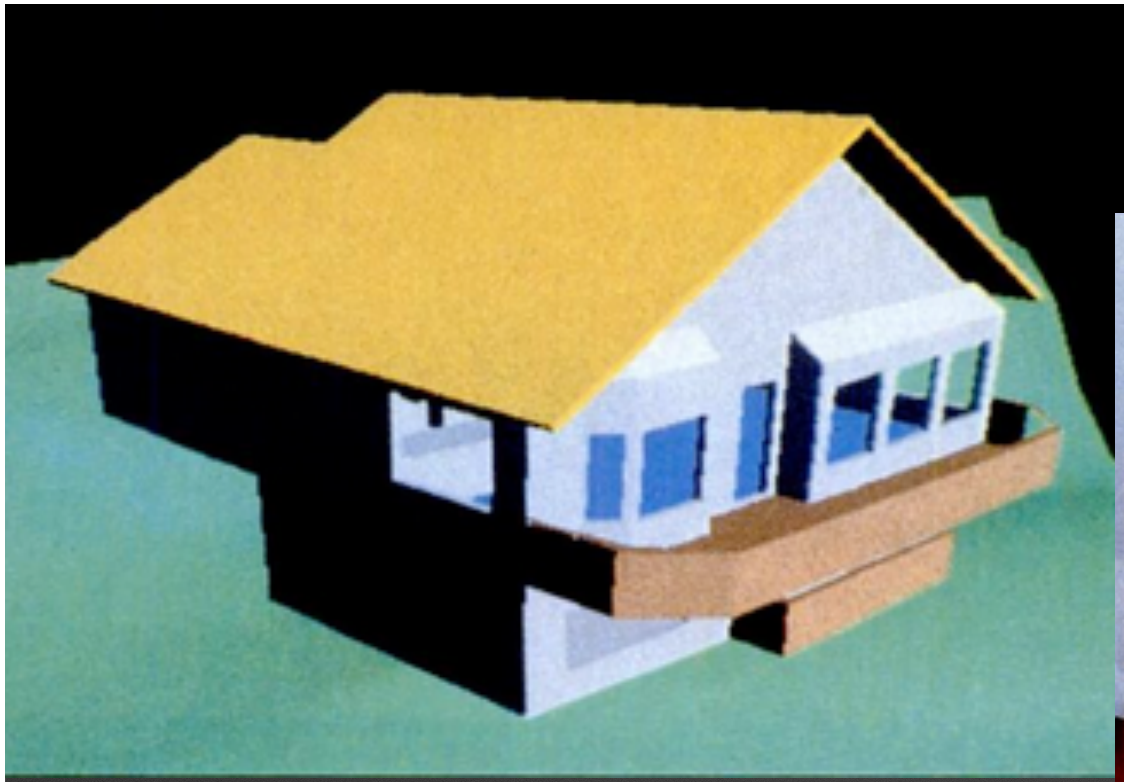
next computer graphics

- micro computer driven high level processing
- directly create/project/render elements
- created real-time playback of wireframe animations


Panasonic
• shoot off screen with video camera
• computer $3k + graphics $4k = $7k(!)

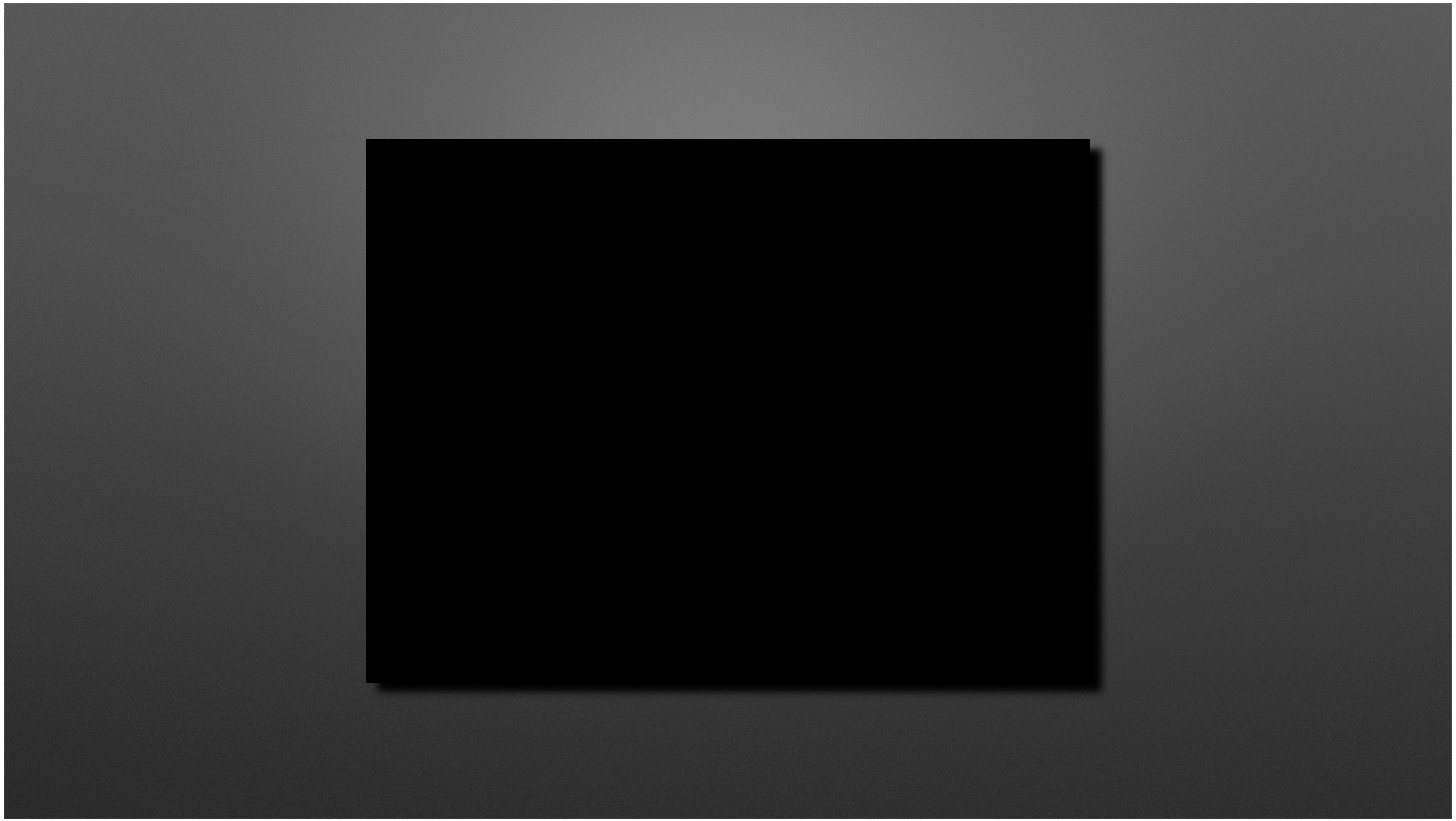
“real” computer graphics

- IBM PC based
- computer $3k +
  graphics $9k = $12k (!!)



- modeling software
- solid / lit objects
- rendering


• frustrated by slow development, I went to work for the company
• wrote animation system



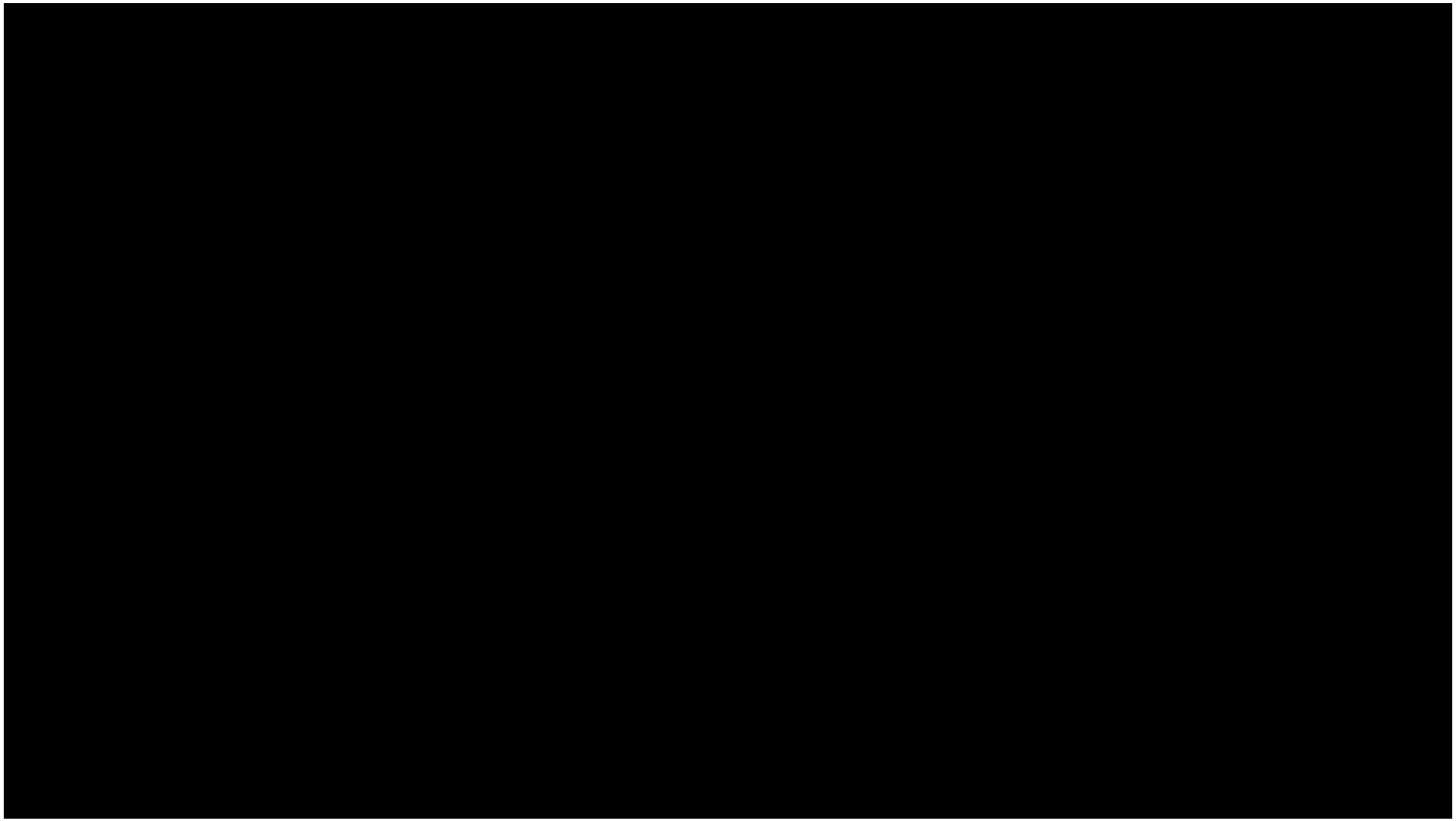
Invaders From Mars

Cannon

1986

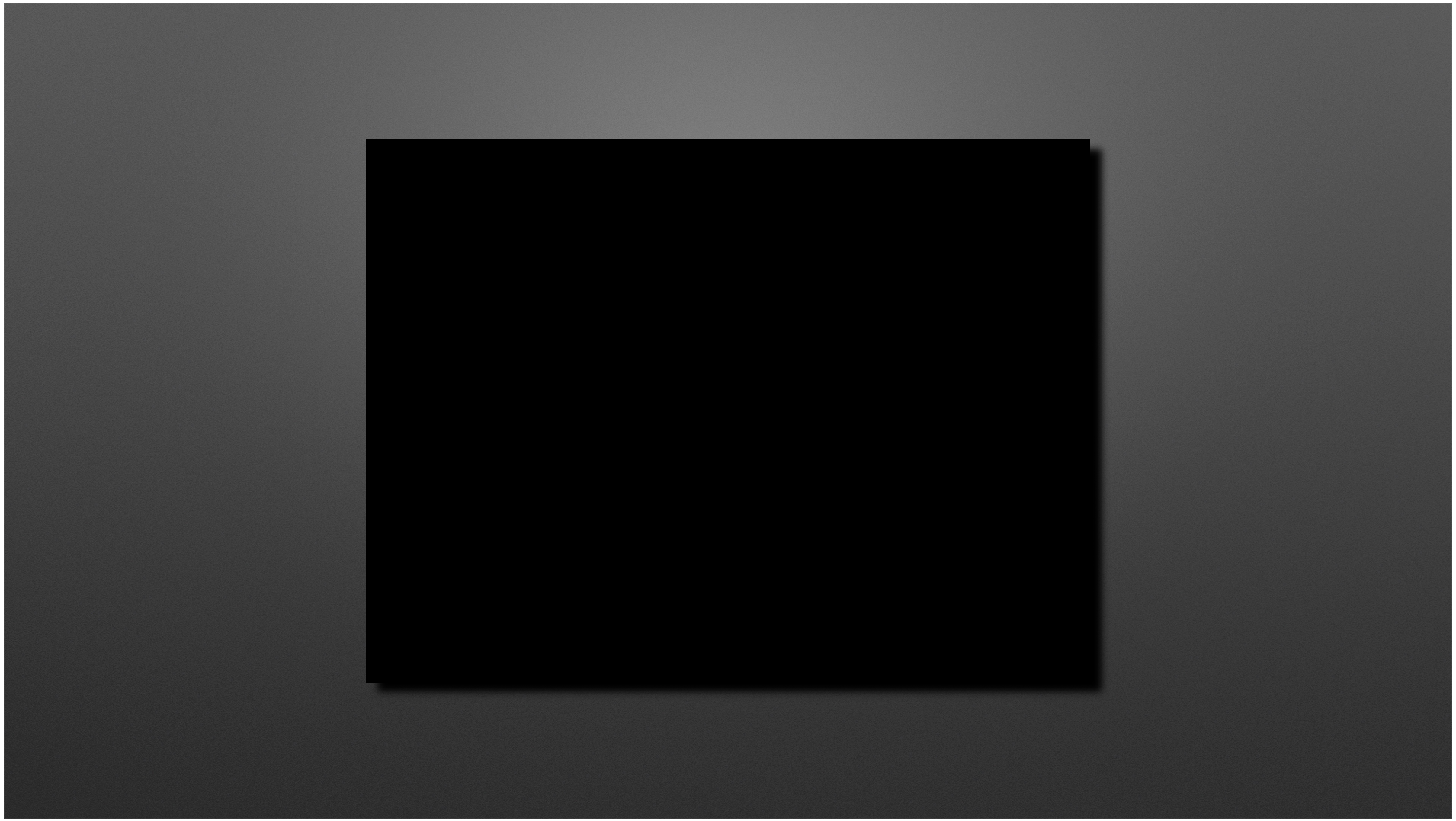
Tobe Hooper

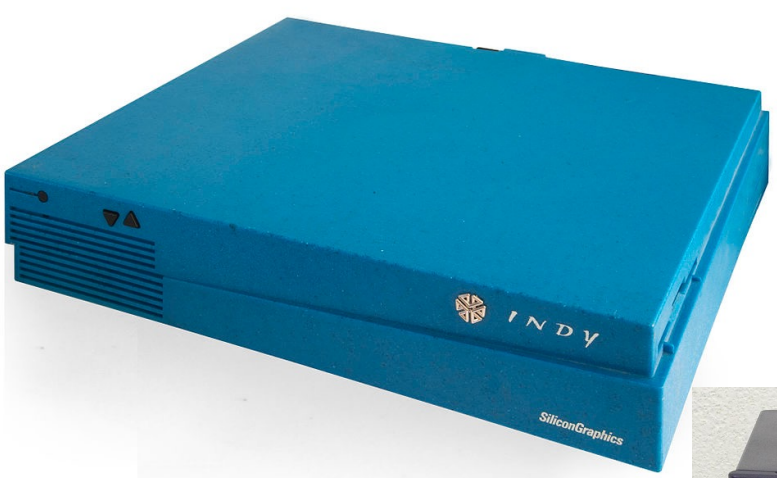
James Karen, Karen Black



- PDI
- “As Seen On TV”

- Ridge computers
- RISC
- UNIX
- 24 bit (full color) frame buffer
- single frame recording to 1” broadcast quality video tape
- $100,000 (!!!)





- second generation
- SGI workstations
- full color
- real time interface

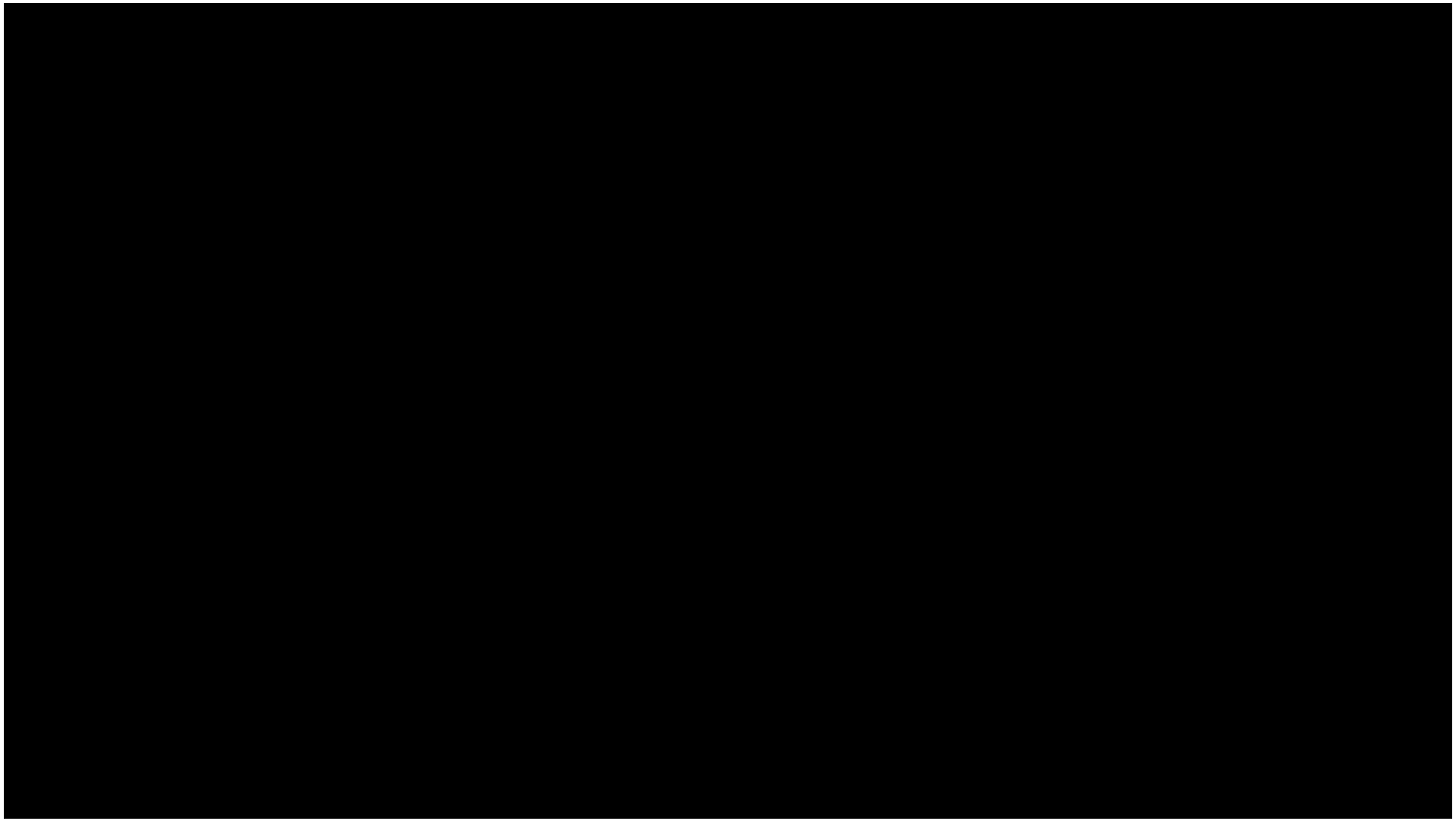
Scrooged

Paramount

1988

Richard Donner

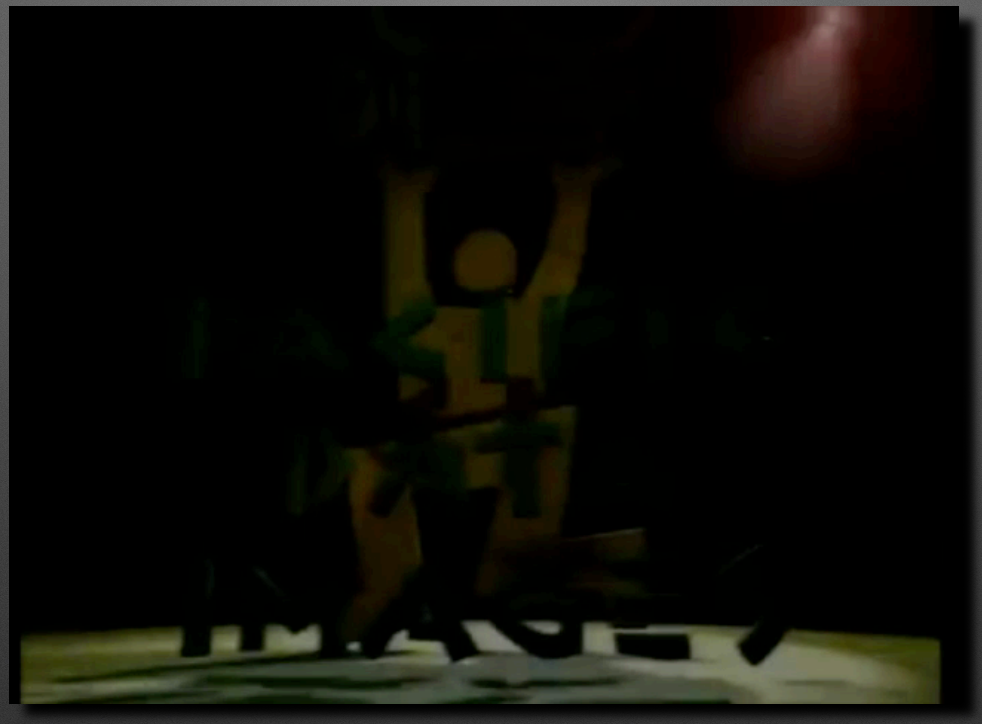
Bill Murray, Karen Allen



PDI Hollywood

- feature time

Digital Film Scanning and Printing



HAMMERHEAD PRODUCTIONS

est. 1995