رسوم وصور الحاسب عبر التاريخ

أولا: الفن المبرمج قبل الحاسبات:

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Funny Faces   .

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.Animation   .

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Mickey

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Cathode Ray Tube CRT

Vacuum Tube .

ثانيا: مولد رسوم الحاسب :

Massachusetts

Institute of Technology MIT

Aerodynamics

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Whirlwind

CRT

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SAGE

Semi-Automatic Ground Environment.

Vertigo.

Catalogue

Lapis.

Digital Equipment

Corp DEC   Programmed Data Processor PDP-1

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Design Augmented by

Computer DAC-1   IBM   General Motors.

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ثالثا: عصر رسوم الحاسبات

١. رسوم الحاسبات فى الستينات:

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(Zagreb)   .

MIT

Sutherland   Sketch Pad .

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Sketch Pad

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Sketchpad（ - ）

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. Sketch Pad

Modelling

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Vector graphics   Sketch Pad

.Raster Graphics

MIT

DEC PDP-   . Space war   Video Game
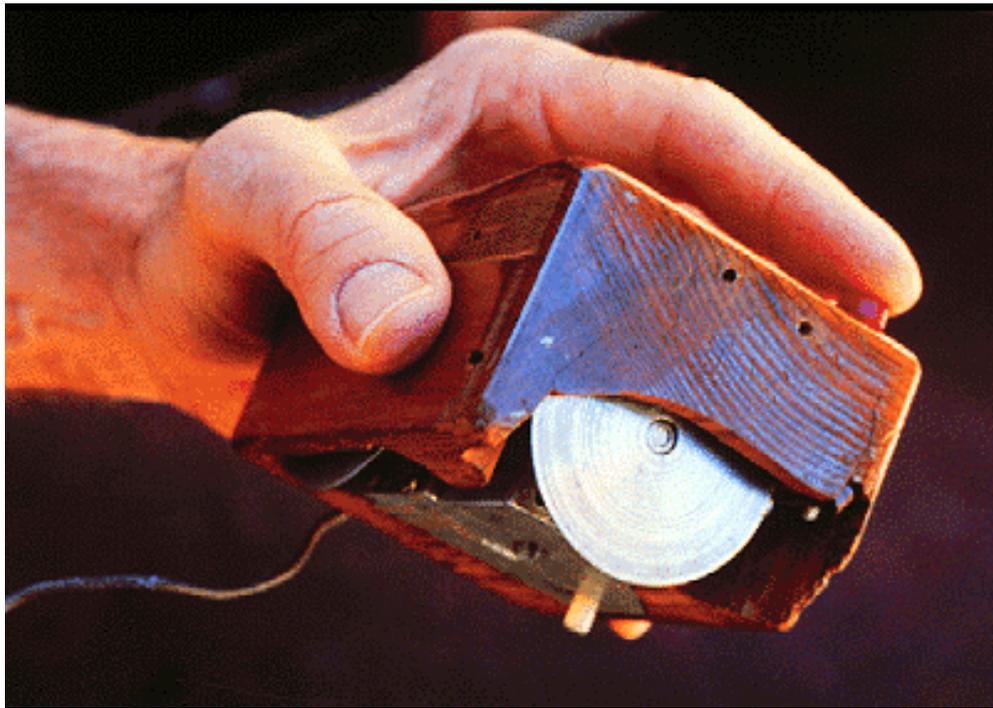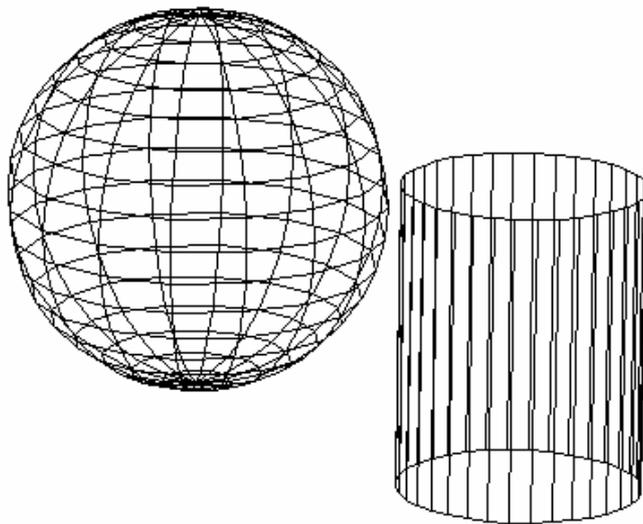
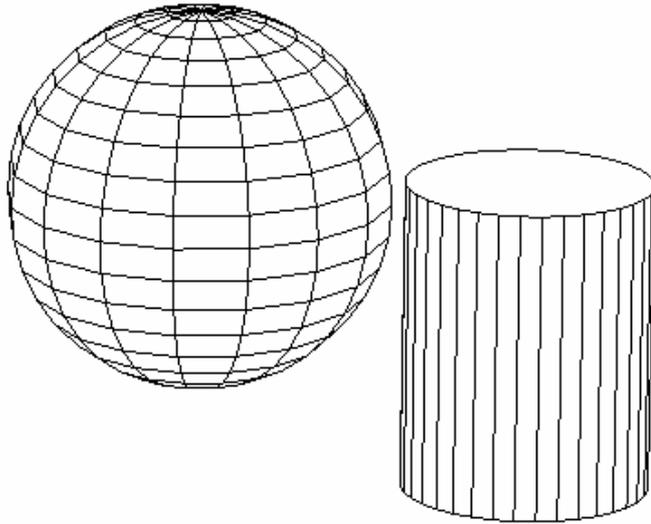DEC   1

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Douglas Englebart

.(-   )

TRW

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Mouse   (-)

IBM

Digitizing Tablet **(   )**   **.**

(Rand Tablet)

Stylus   Puck

.   Synchronization

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Plotter

.CRT

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(-)   Hidden lines

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Michael Noll

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Dave Evans

Utah ．

( )   Simulator   ．

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Utah ．

Siggraph

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Vector   ．

Raster.

Lambert   ．

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Max   Cybernetic Serendipity

Bense   ．

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٢. رسوم الحاسب فى السبعينيات

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Scanimate   Animac   Computer Image Corp. CIC

Caesar

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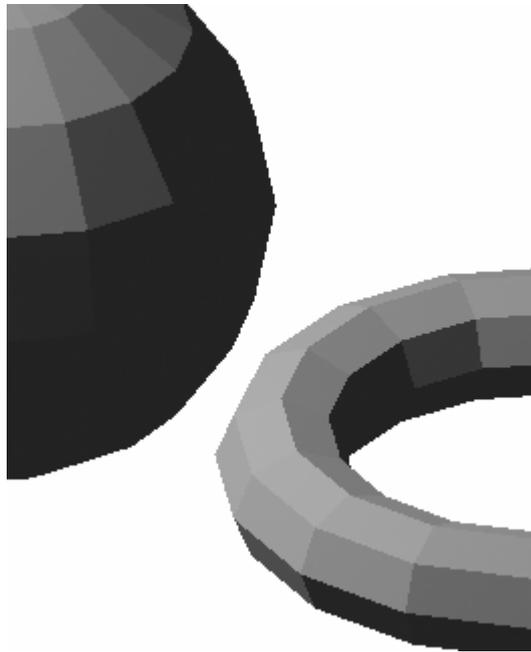．　　　　　　　　　　　　　Menu　　　　Tool Box

Pierre Bezier

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Flat shadow　　　　　　　（ - ）

Flat shadow

（ - ）

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Gouraud Shading　　　　　　（ - ）

. Gouraud Shading   .(-)

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Westworld

Pixelization

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Ed Catmull

.   Object Texture

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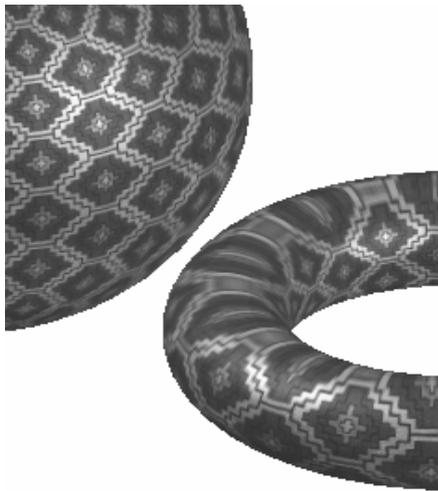
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Ed Catmul   (-)   (-)

Texture mapping

Z-Buffer   .

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Y   X

z-buffer   Pixel   Zel

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z-buffer

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Utah

.   Bui Toung Phong

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.   Wireframe

The Fractal of Geometry of Nature   Mandelbort

Fractal

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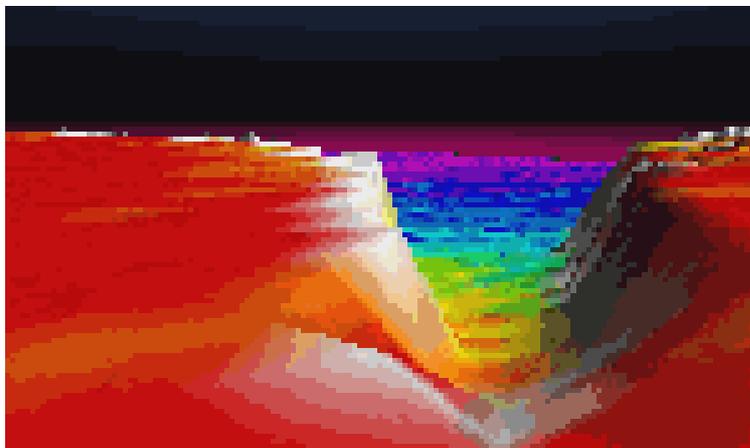
Alvy Ray Smith

NYIT

.   24 Bit

Fractal Paint   (–)

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Tween .

in between

Disney's CAPS

. (Computer Animation Production System)

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Alex Schure

"The Works"

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Association of Computer Machinery

SIGGRAPH

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. SIGGRAPH .

NCGA

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Steve Wozniak & Steve Jobs

.Apple .

Computer Graphics World

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Don Greenberg

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IBM

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Turner Whitted ．

Ray Tracing

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٣. رسوم الحاسب فى الثمانينيات

Tron ．

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Lucasfilm ． (-)

Star Trek II

Morphing ．

Flight of the Navigator

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CAD AutoDesk ．

Graphic ．

Workstation Silicon Graphics Iris 1000
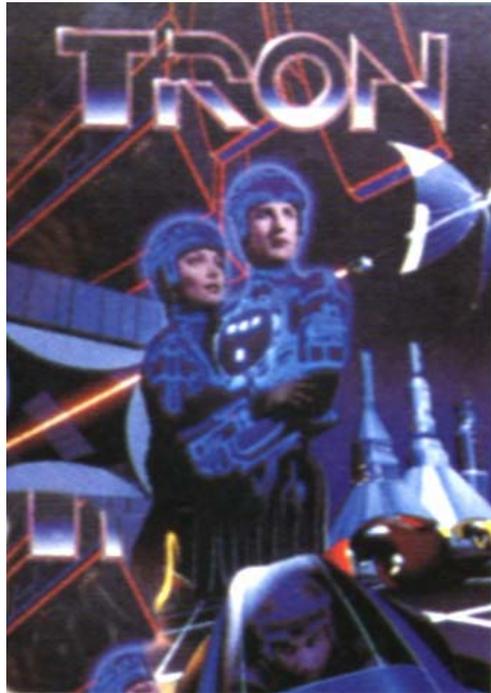
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Tron   (-)

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.Wavefront   Bill Kovacs

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Kleiser-Walczak

.   Dozo

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VISION   Viciorp

(DOS   )

Interface Manager

.Windows

‮.‬

Michael Wahrman   Brad De Graf

Mike the Talking Head   SIGGRAPH

‮.‬

AP Access   ‮.‬

‮.‬

(   )

Graphic –   Data Feature Graphic
                                                                                              Net

Tin

(–)   ‮.‬   Toy

٤. رسوم الحاسب فى التسعينيات

Graphics User Interface GUI

‮.‬

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Tin Toy   (-   )

Video Toaster   NewTek

.   24 Bit

.Babylon 5   Sea Quest

Toy story   (-   )

– (–)

3D Studio   Autodesk

3D   Gary Yost

.   Studio Max

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Pixar

Terminator (   )   Beauty and the beast

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Dinosaur Input device **Tippett**

. **Sensors**

Softimage **Alias Animator**

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Industrial Light & Magic

-) . **Jurassic Park**

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3D Scanners

Jurassic Park (-)

. **Wire frame**

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Windows 95

NT   **Windows2000**   **Windows 98**

Windows ME

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3D Studio Max

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The Wrath of Khan and Tron – Star Trek

Toy Story

John Lasseter   .

Softimage   **Geri's Game**   **Pixar**   .

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Bug's Life   .

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Geri's Game   (-)

The Phantom Menace   Star War

Jar Jar Binks

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Virtual Reality

real-time   Synthetic

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Illinois   Siggraph   .The CAVE Virtual Reality Theater

data gloves   wands   （ - ）（ - ）.

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