Motivation

Interactive graphical user interfaces

- **Mouse, windows and widgets**
- **Virtual reality**
  - **Input: Gloves, 3D tracking**
  - **Ouput: HMD**

Motivation

Digital media technologies

- **Printing**
- **Film and video**
- **Multimedia workstation**

Motivation

Visualization

- Science and Engineering: finite element simulation
- Medicine: CT Scans
- Mathematics: 4D geometry, minimal surfaces
- Physics: General relativity
- Chemistry: Macromolecules

Motivation

Art and Entertainment

- Movies: *Juraisic Park* and *Toy Story*
- CDROM Titles

Interdisciplinary: Theory and Practice

Science

- Mathematics of curves and surfaces
- Physics of light and color

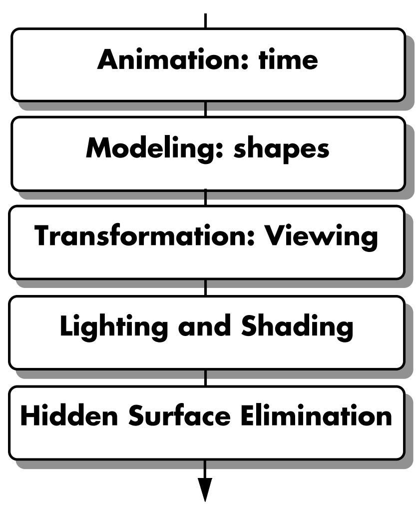
Engineering

- Hardware: Graphics and media processors
- Software: Graphics libraries, window systems
- Displays

Aethestics

- Color theory
- Composition ...

Graphics Pipeline: 3D Geometric Graphics



Graphics Pipeline: 2D Raster Graphics