CH20: Games go 3D & ID Software Reshapes A Medium

- Ivan Sutherland (1965)
  - Visual Displays
  - Virtual Reality
- 3D Video Games
  - Polygon 3D visuals
  - Atari (1983) coined-operated I, Robot (David Theurer)
- 3D Graphics
  - Mathematical Equations: alter player's perspective-recalculate position & sixe of polygon relative to player's location in virtual world)

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- Flight Simulators led the way
- Virtuality
  - Leading Leisure
  - Intertwine virtual reality & video games
  - Design sit-down & stand-up arcades
  - Dactyl Nightmare - 4 player Arcade (separate arcades machines ($65k)
- Id Software
  - Catacombs 3D (PC-based game) 1st Texturized map game, 1st person

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- Meanwhile…..
  - Andrew Fluegelman & Shareware
  - Commander Keen: Invasion of Vorticons
    - Three Part Game: 1st part (free) /2nd & 3rd parts (pay)
- Paul Neurath
  - Looking Glass Studios (1982)
  - Theory into Games
- Chris Green

CH20: Games go 3D & ID Software Reshapes A Medium

- Chris Green
  - 3D Graphics Engine
  - Neurah told Remero
- John Carmack
  - Created Id's 3D Graphics Engine
  - Catacomb 3-D
  - Wolfenstein 3D (improved 3D GE)
- Bombshell
  - Id licenses the 3D technology to others
  - Doom (1993)

CH 21:
The Playstation & Girl Gaming

- Secret Project (1989-1991)
  - Sony & Nintendo
  - CD-ROM
  - Broken alliance
- Nintendo
  - Felt Sony was using the project to get into the game business
- Ken Kutaragi (Sony, 1991)
  - Get Sony into games
  - CD + 3D

CH 21:
The PlayStation & Girl Gaming

- Ken Kutaragi (Sony, 1991)
  - Get Sony into games
  - CD + 3D
- Trip Hawkins
  - Against dominance & power of console industry
  - Cartridge systems and restrictive licenses
- 3DO System
  - Advance the game industry
  - Graphics, storage, multimedia, liberal licensing
  - Open and democratic licenses
- Panasonic 3DO: did not fair to well
  - $699.95
  - Developers went to the competitors
  - Sony on the rise

CH 21:
The PlayStation & Girl Gaming

- Sega: prove the 3D technology can work
- Sony: capitalized 3D technology
- Sega slipped: Couldn't match Sony's $2 billion dollar market
- Girl Power (1997)
  - Purple Moon
- Tomb Raider
  - Heath Smith: Sega 1st, then Sony
  - Sony won

CH 21:
The PlayStation & Girl Gaming

- Tomb Raider

CH 21:
The PlayStation & Girl Gaming

- Nintendo
  - 3D graphics
  - Cartridge-based
- Sony
  - Capitalized again
  - Final Fantasy Series

CH 21:
The PlayStation & Girl Gaming

- Final Fantasy