2D Animation

Visual Imaging in the Electronic Age

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Lecture #25
Motion

© National Geographic
Animation is not producing “Drawings which move” but rather “Motions which are drawn”

– Disney Studios
Newton’s Apple, 1970

Zoetrope
Animation – Windsor McKay’s Gertie
Animation – Snow White
2D Cel Animation
Cartoon Animation

• What is cartoon animation?
  – A sequence of drawings which, when viewed in rapid succession, create an illusion of continuous life-like movement.

• Cel animation
  – Process in which background and action are drawn separately
  – Background and action are placed together when ready to film
Cel-animation

Standard Animation Cel

Cel

Standard Animation

With Background
Cel-animation
SONG
"MY FAVORITE
TIME OF THE YEAR"
PROD.: #110-1

FOLKS SC. #110 9-35

REVISED 10/13/77

(FRED SAGS)
FRED: (RELIEVED) WHHSH!

(INTERNET HAIR)
INTO HAPPY REALIZATION

FRED: YABBA DABBA DOO —!

FRED: MERRY CHRISTMAS,
MISTER SLATE!

(FX: DOOR SLAM!)

L.O. CHECK 36'S SECOND SC. 56
FOR CONSISTENCY

FINAL PRODUCTION BOARD

OCT 21 1977
Cel-animation
Cel animation camera stand
Figure 2a: Walt Disney's multiplane camera stand
Steps for creating cel-animated films

- Background is drawn and colored
- Key animator draws the most important, or key, frames of character
- In-betweener fills in the key frames with all the action required of the character
- Cels are inked and painted
- Checker places each cel on the background and checks the quality of art and movement
- Each cel is filmed
The Nereus Animation System
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Partial automation

- Backgrounds can be drawn and colored on a computer
- **Key frames are still drawn by key animator**
- **All in-between frames are still drawn by animators**
- Cels can be inked and painted on a computer
- Cel and background can be put together and checked with a computer and then filmed
Advantages of Partial Animation

- All artistic control stays with the animators
- The cost of the most expensive part of the production process (inking and painting) is vastly reduced (1/10th)
- Can still take advantage of special features
  > Zooming
  > Color changes
  > Multi-Plane camera simulation
  > Reduction in scale
Hanna-Barbera Animation System