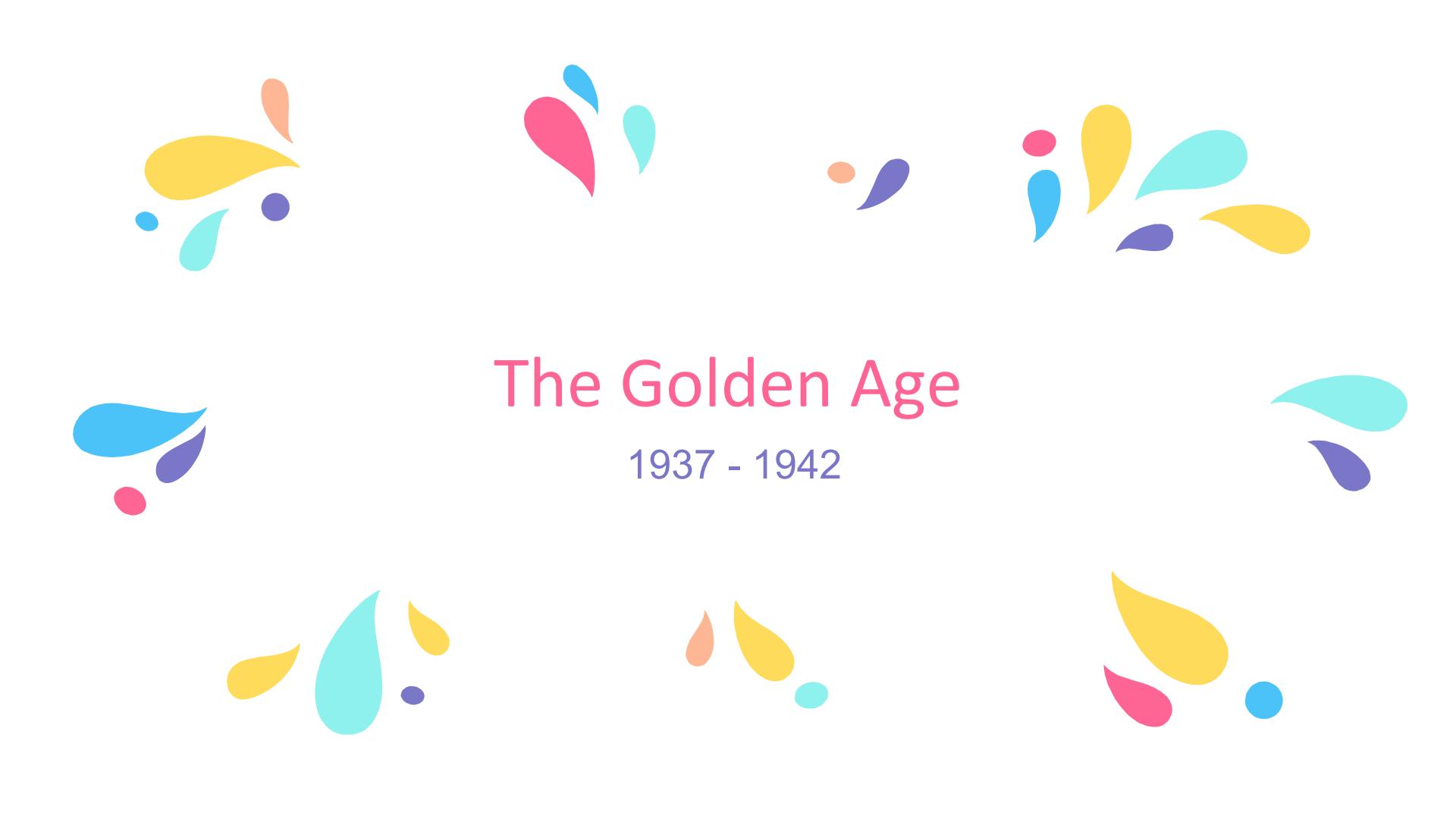


# History of Animation Disney Films





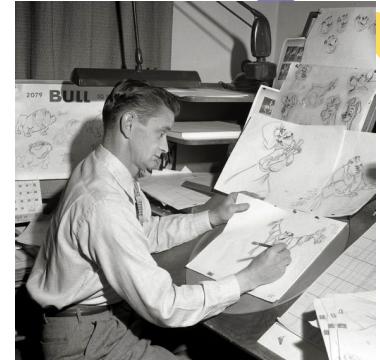
# The Golden Age

1937 - 1942



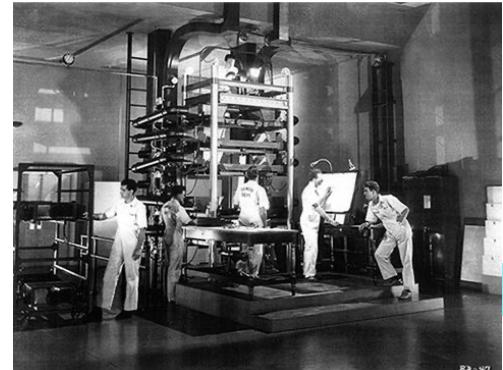
# Traditional Animation Process

- ❖ Create a story board
- ❖ Script, dialog and score are written first
- ❖ The animation process
  - ❖ Characters are drawn in complete detail
  - ❖ Drawings are photographed and tested
  - ❖ Ink department traces drawings on celluloid and paints them
  - ❖ Backgrounds of scenes are painted
  - ❖ Backgrounds and cels are photographed in sequence
  - ❖ Sound effects and score
  - ❖ Together creates a film



# Snow White and the Seven Dwarfs (1938)

- ❖ First full-length animated feature
- ❖ 250,000 celluloids
- ❖ Multiplane camera
  - ❖ Splits a field of view into separate planes
  - ❖ Creates depth, “realistic”
  - ❖ Tracking shots, forward motion
  - ❖ Groundbreaking to animation





# Fantasia (1940)

- ❖ Experimental
- ❖ Most elaborate cel work ever done
  - ❖ Colored lines, drybrush, airbrush, transparent paint, stipple
- ❖ Groundbreaking audio recording
  - ❖ 33 mics, 9 channels
- ❖ “Fantasound”
  - ❖ Theaters were upgraded
  - ❖ Multiple speakers placed around entire theater
  - ❖ First film presented in stereo and multi-channel sound





# Additional Eras



## The Wartime Era

1943-1949

- Faced budget cuts
- Films comprised of short films
- Production of Propaganda

## The Silver Age

1950-1959

- Return to fairytales and full-length feature films
- Traditional animation was still used
- Cinderella, Sleeping Beauty

## The Bronze Age

1970 – 1988

- The studio spiraled after Walt's death
- Less fairy tales, darker stories
- Use of xerography
  - Allowed printing of drawings onto cels

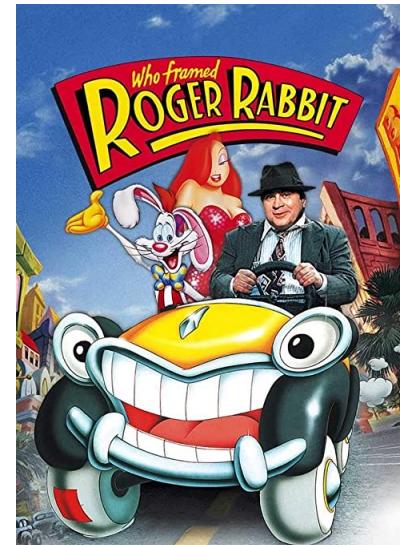
# The Disney Renaissance

1989 - 1999



# Who Framed Roger Rabbit (1988)

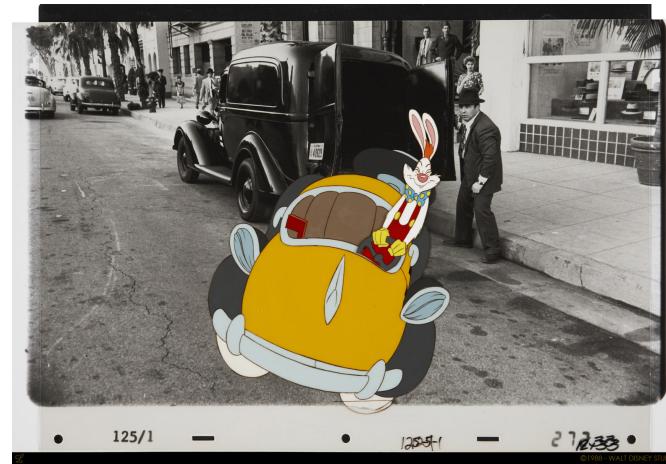
- ❖ First full-length film to combine live action with animation (successfully)
- ❖ Re-sparked public interest in animation
  - ❖ Helped start Renaissance age



# Who Framed Roger Rabbit (Production)

## ❖ Production

- ❖ Film live action scenes and animate on top (Rotographing)
- ❖ Traditional animation techniques with new processes
- ❖ Needed additional effects for all cels
  - ❖ Back lighting, shadows, contours, etc.
  - ❖ Bumping the lamp
- ❖ Fit animation with real objects and actors
- ❖ Physical effects
  - ❖ Cartoons interacting with the real world
  - ❖ Puppeteers and rigs





*the original*

# ROGER RABBIT



## Animated Feature Films Within The Disney Renaissance

# The Little Mermaid (1989)

- ❖ Started the Renaissance age of animation
- ❖ Last film to use multiplane camera, traditional cel animation
- ❖ First film to feature CAPS (Computer Animation Production System)
  - ❖ Only used in one scene



# CAPS (Computer Animation Production System)

- ❖ Upload drawings to be colored
  - ❖ Capable of transparent shading and blending colors
- ❖ Simulate traditional animation with newer extensive camera movements
- ❖ Less time consuming
- ❖ Eliminated the need for the multiplane camera
- ❖ First film completely made with the program, “The Rescuers Down Under” (1990)



# Beauty and the Beast (1991)

- ❖ The second film to be animated entirely with CAPS
  - ❖ Combined with CG imagery
- ❖ All characters were still hand drawn
- ❖ Ballroom sequence
  - ❖ Important to animation history
  - ❖ First background/atmosphere
  - ❖ Created in CG with realistic elements
  - ❖ Characters animated in constant changing perspective
  - ❖ New ability to move camera





# Toy Story (1995)

- ❖ Disney and Pixar three-movie joint contract
- ❖ First feature-length computer-animated film
- ❖ Pixar's first feature film
- ❖ Pixar created RenderMan for the movie
  - ❖ Animating software
    - ❖ Color, shading, lighting
- ❖ Menv
  - ❖ Create models of characters
  - ❖ Allowed isolation of specific frames, computer autocompletes the rest
  - ❖ Changes to the animation could be made within a matter of seconds
- ❖ 117 computers
- ❖ Each frame: 45 minutes to 30 hours to render
  - ❖ 114,240 total frames





## Post Renaissance Era (2000-2009)

- ❖ “Dinosaur” (2000)
  - ❖ Disney’s first solo attempt at CGI animation
  - ❖ Characters are computer animated
  - ❖ Backgrounds were filmed on location



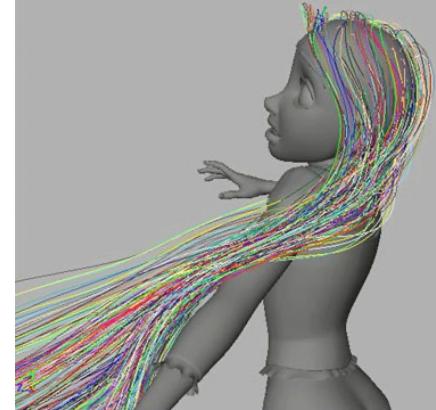


# The Revival Era

2010 – Present

# Tangled (2010)

- ❖ Most expensive animated film made
  - ❖ \$260 million
  - ❖ Production had been started and stopped multiple times
- ❖ Disney's 50th animated feature film
- ❖ CGI, traditional animation, non-photorealistic rendering
  - ❖ Follow traditional Disney aesthetic
  - ❖ Wacom Cintiq tablets
  - ❖ Combining both types of animation is difficult
    - ❖ Film proved a new age
- ❖ CGI made hair realistic
  - ❖ System that combined rig-based key-frame animation with hair simulation
- Led to films like Frozen (2013)





# Live Action Remakes of Animated Classics

2016 – Present



# The Lion King (2019)

- ❖ Completely CGI/3D animation
  - ❖ Only one scene was filmed in Africa
- ❖ No motion capture used
  - ❖ "The Jungle Book" (2016)
    - ❖ Motion capture, animation placed on top
- ❖ Combined live-action techniques, virtual reality, CG animation
  - ❖ "Virtual production"
  - ❖ Created in Unity game engine
  - ❖ VR headsets used to walk around set
    - ❖ Set up the scene, choreograph character movements, adjust lighting
- ❖ AI was used for some character animations
  - ❖ Taught to associate behaviors with motivations





## In Conclusion...

- ❖ Disney has made large advancements in animation
- ❖ As technology improved so did the abilities to create more amazing and realistic animations
- ❖ Animation will continue to advance and improve in the future



# Thank You!

## Any questions?





# Sources



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