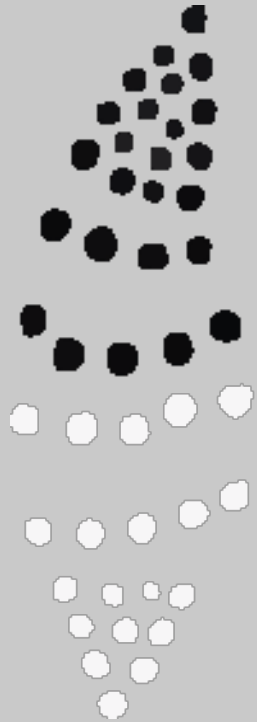Based on Illustrated front cover from The Queenslander, October 15, 1936 State Library of Queensland

Art of Projection
Session One: Persistence of Vision

Dr Waldemar Jenek

11.05.2024

Acknowledgement of Country

We acknowledge Aboriginal and Torres Strait Islander peoples and their continuing connection to land and as custodians of stories for millennia. We respectfully acknowledge the land on which we all meet today, and pay our respects to elders past, present and emerging.

Session Overview

Welcome

- Check in and get set up on a computer

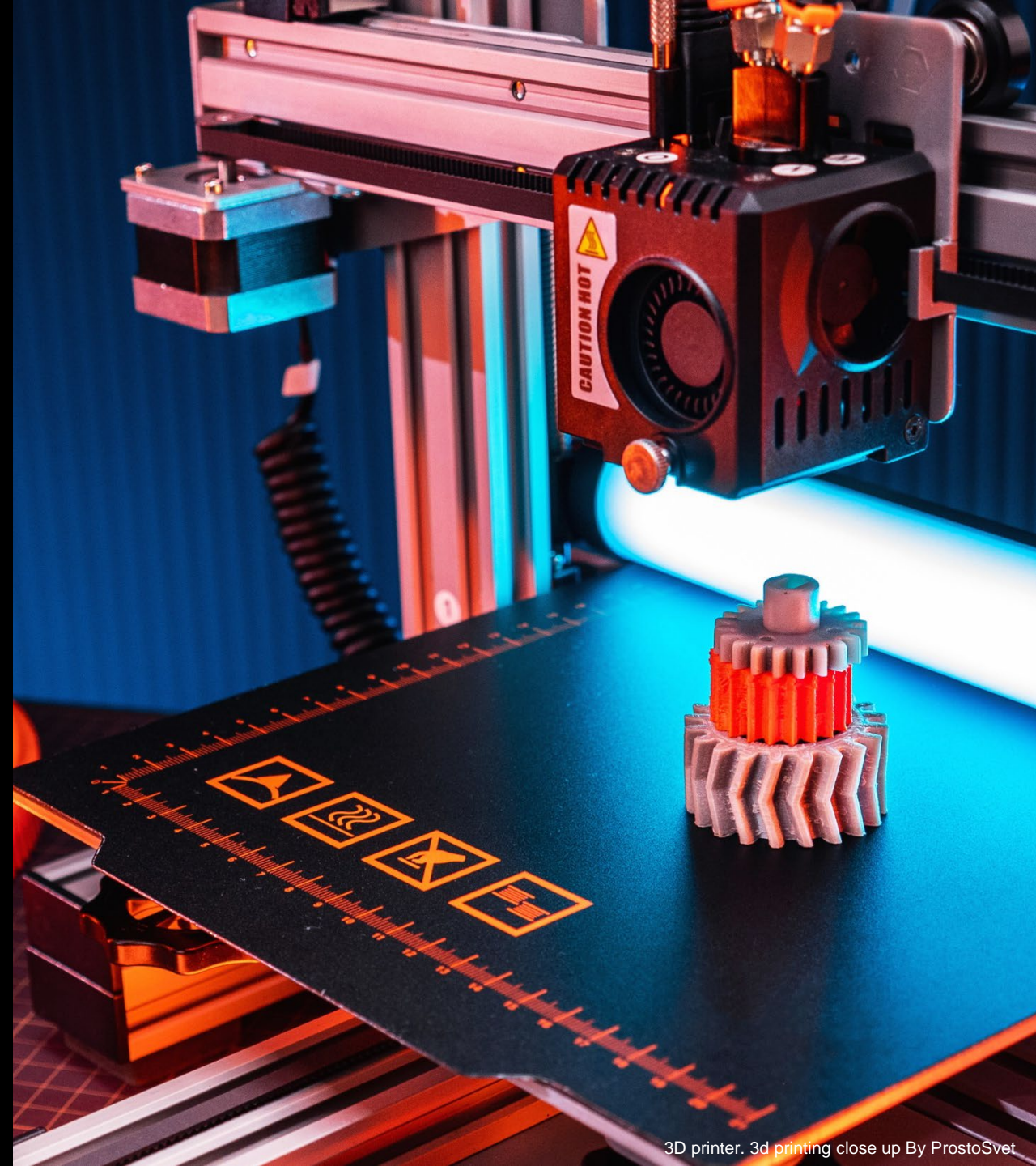- Why did you sign up? what are you hoping to get out of this series?
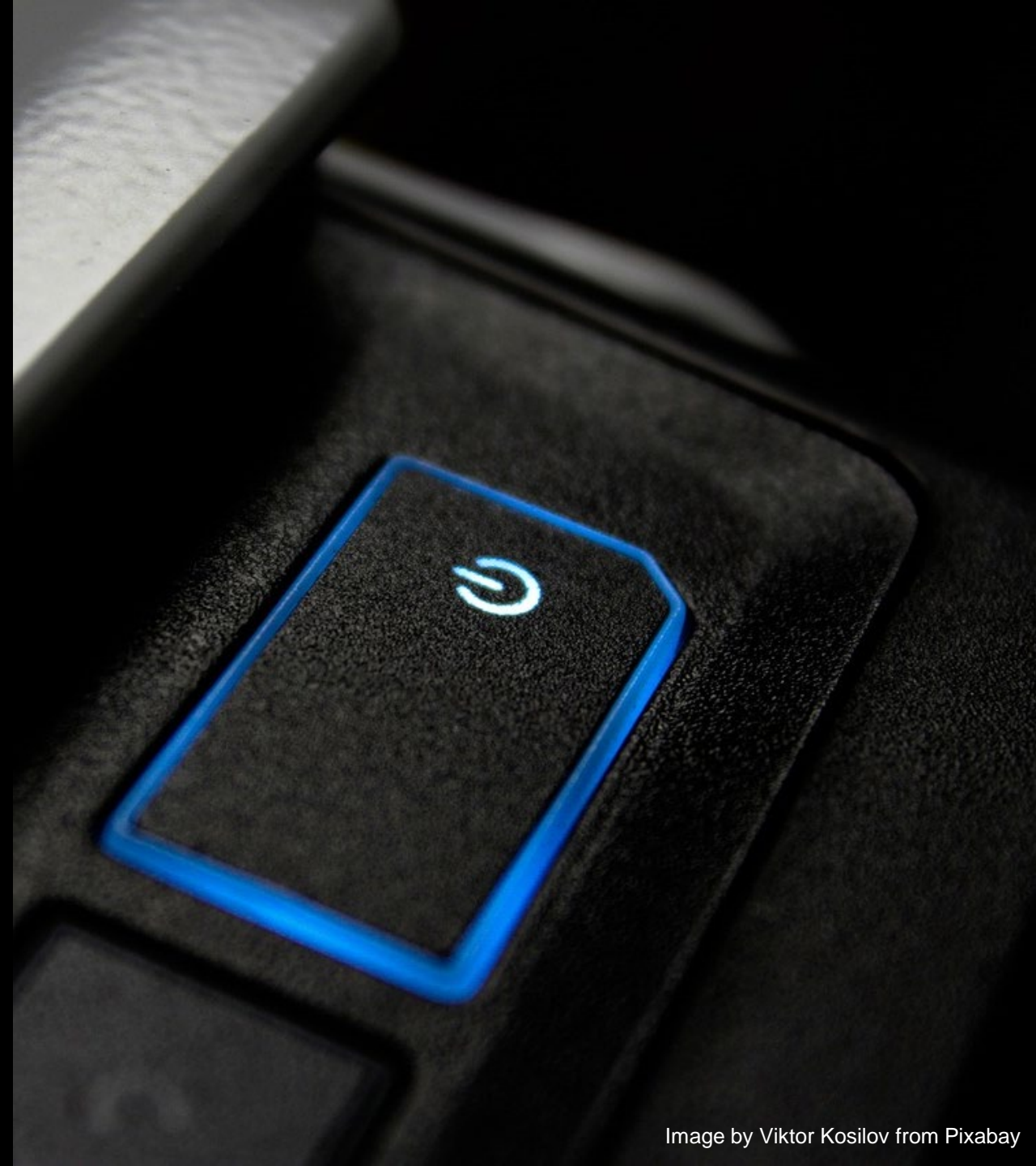
Overview of workshop

Today's Goals and Timeline:

- Introduction to the Workshop (15 min)

- Exploring the SLQ Collection (15 min)

- Introduction to Animation/ Projection Technologies (45 min)

- Introduction to Photoshop for Animation (45 min)

- Creating Animations for Phenakistoscope/ Zoetrope (45 min)

- Break (10 min)

- Printing/ assembling Phenakistoscope/ Zoetrope (30 min)

- Testing and Sharing (45 min)

- Wrap-up and Next Steps (5 min)

Equipment

- Computer with Photoshop

- Laser Cutter

- Prefabricated 3D printed Zoetrope

- Standard copier/printer

- SLQ collection items (digitized slides and videos).

- https://wiki.slq.qld.gov.au/doku.php?id=workshops:prototypes:artofprojection

3D printer. 3d printing close up By ProstoSvet

Health & Safety

- For all workshops at The Edge we like to familiarise participants with:

- Exit points

- Lab Risk Assessments

- Safe operating procedures

Early Animation & Persistence of Vision

- How it works: Fast sequence of images creating the illusion of motion.

- Examples: Thaumatrope, Phenakistoscope, Zoetrope.

- Relevance: Demonstrates the basic principles behind modern animated films.

Thaumatrope

- Optical illusion where multiple discrete images blend into a single image due to the retina retaining the image for a fraction of a second.

- Basis for creating motion in animation and film.

- Fundamental principle behind many historical and modern visual technologies.

Magic Lanterns

- Early type of image projector using pictures on glass slides.

- Developed in the 17th century, popular in the 19th.

- Educational tool and entertainment, precursor to slide projectors and cinema.

Phenakistoscopes

- Discs with sequential images viewed through slits.

- Contribution: Demonstrated how static images could be animated to create the illusion of movement.

Zoetropes

• Cylinder with slits, spinning creates illusion of motion.

From Zoetropes to Film

- Technological advancements, led to the development of motion picture cameras and projectors.

- Role of persistence of vision, Essential for the creation and viewing of films.

Modern Animation and Projection Technologies

- Introduction of computers and software for creating complex animations.

- Projection mapping: Using surfaces as canvases for large-scale, dynamic artworks.

Large Scale Artworks and Projection Mapping

- Technique where videos are mapped onto irregular shapes, turning any surface into a dynamic video display.

- Art installations, live events, advertising, and more.

Image by Patty Jansen from Pixabay

Relevance of Persistence of Vision Today

- Foundation for modern visual media: Films, TV, video games, and virtual reality.

- Continues to inspire: Artists and technologists explore new possibilities in storytelling and visual experiences.

3D Printed Zoetrope

The Edge - SLQ Collection

- Introduction to The Edge and its Resources

- Overview of State Library of Queensland's Collection

- Importance of SLQ Collections in Animation and Projection

Illustrated front cover from The Queenslander, January 17, 1929, Agnew, Garnet (Garnet Gerald) 1886-1951, the State Library of Queensland

Summary

- Persistence of vision is a timeless principle that continues to shape the way we create and consume visual media.

- Its evolution from simple devices like magic lanterns and zoetropes to sophisticated digital animation and projection mapping highlights its enduring relevance and potential for innovation.

Introduction to Photoshop

- Basics of Photoshop
- Creating Frame-by-Frame Animation
- Tips and Tricks for Beginners
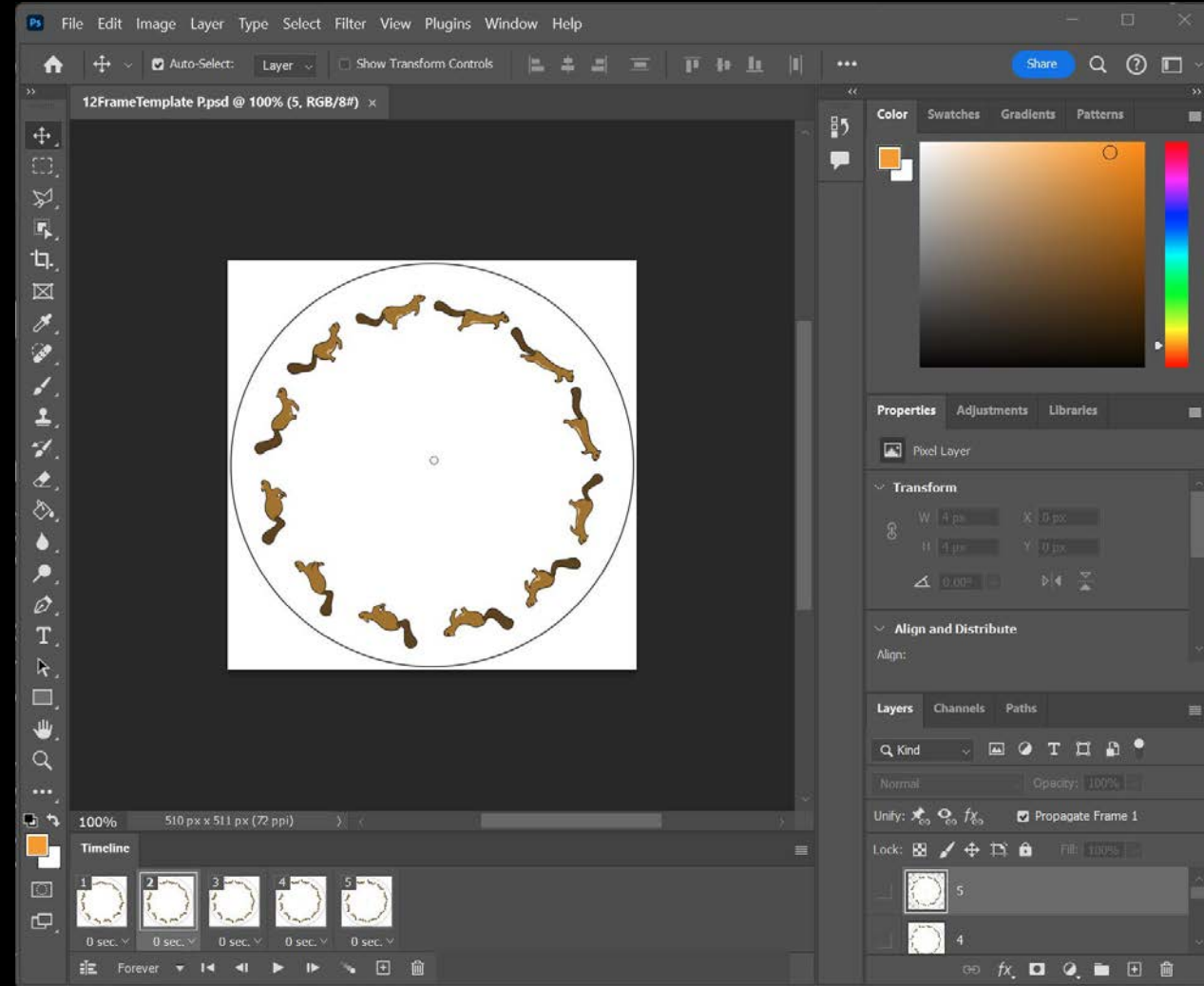
Understanding Photoshop Basics

- Introduction to Photoshop interface
- Opening your File/Creating New Files
- Understanding Raster Graphics
- Navigating the Workspace
- Layers
- Adjustment Layers/ Masks
- Content Aware Fill

- Tools and panels essential for animation
- Setting up your workspace for animation
- Saving Images (File Formats)

Creating a New Project

- How to create a new document
- Understanding resolution and dimension for animation
- Saving your project correctly
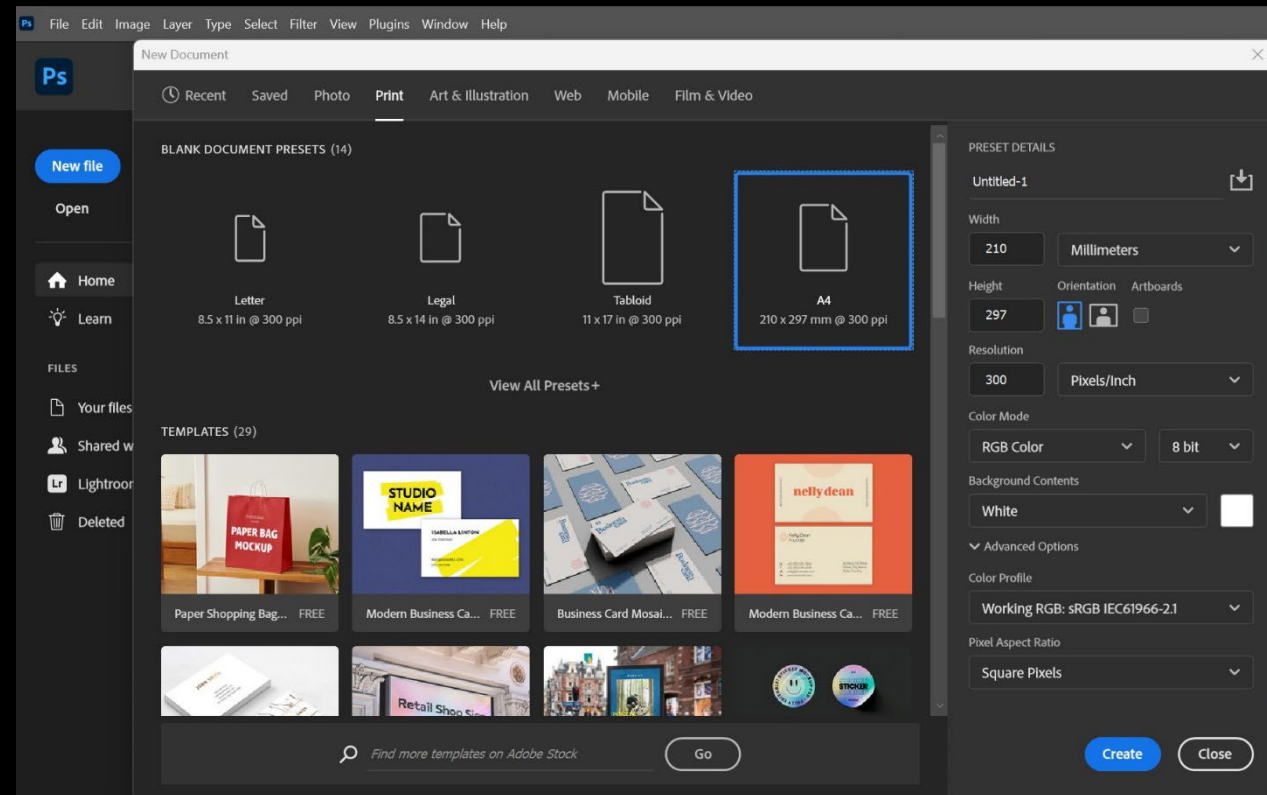
Introduction to Layers

- What are layers and why they are important
- Creating, organizing, and managing layers
- Layers in the context of animation
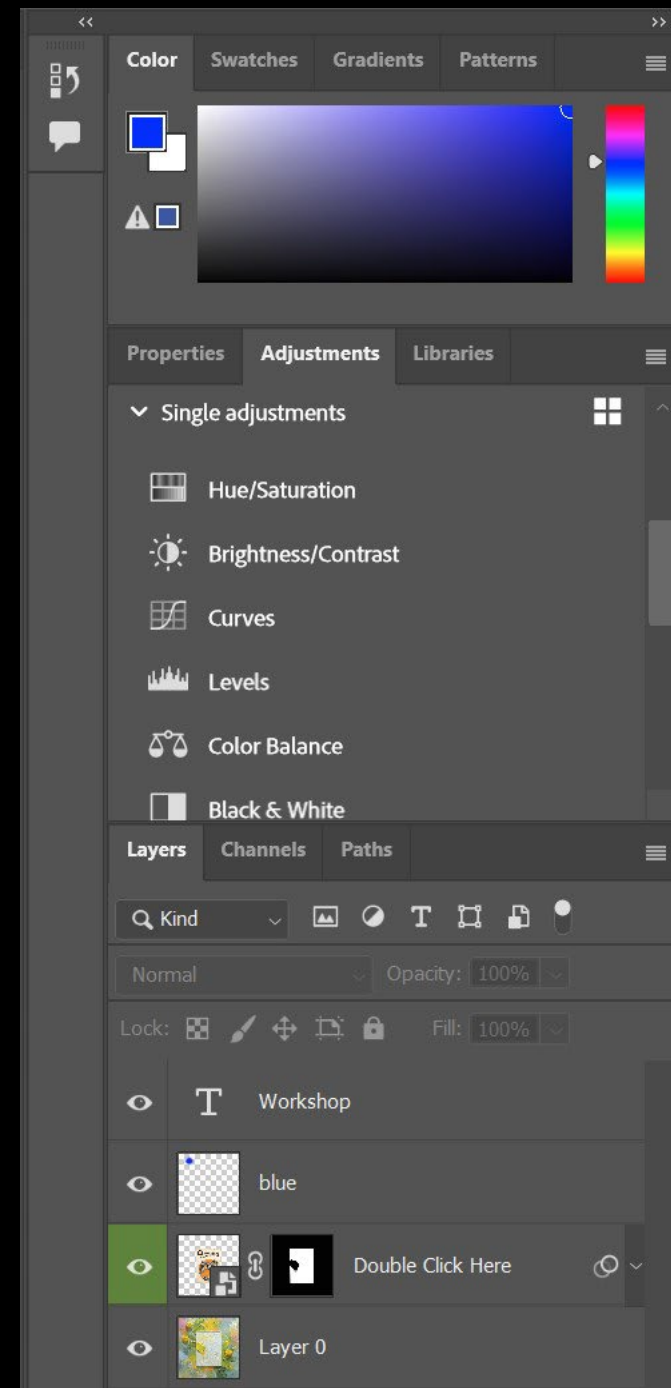
Frame-by-Frame Animation Basics

- What is frame-by-frame animation?
- Understanding keyframes and timelines
- Frame rate basics
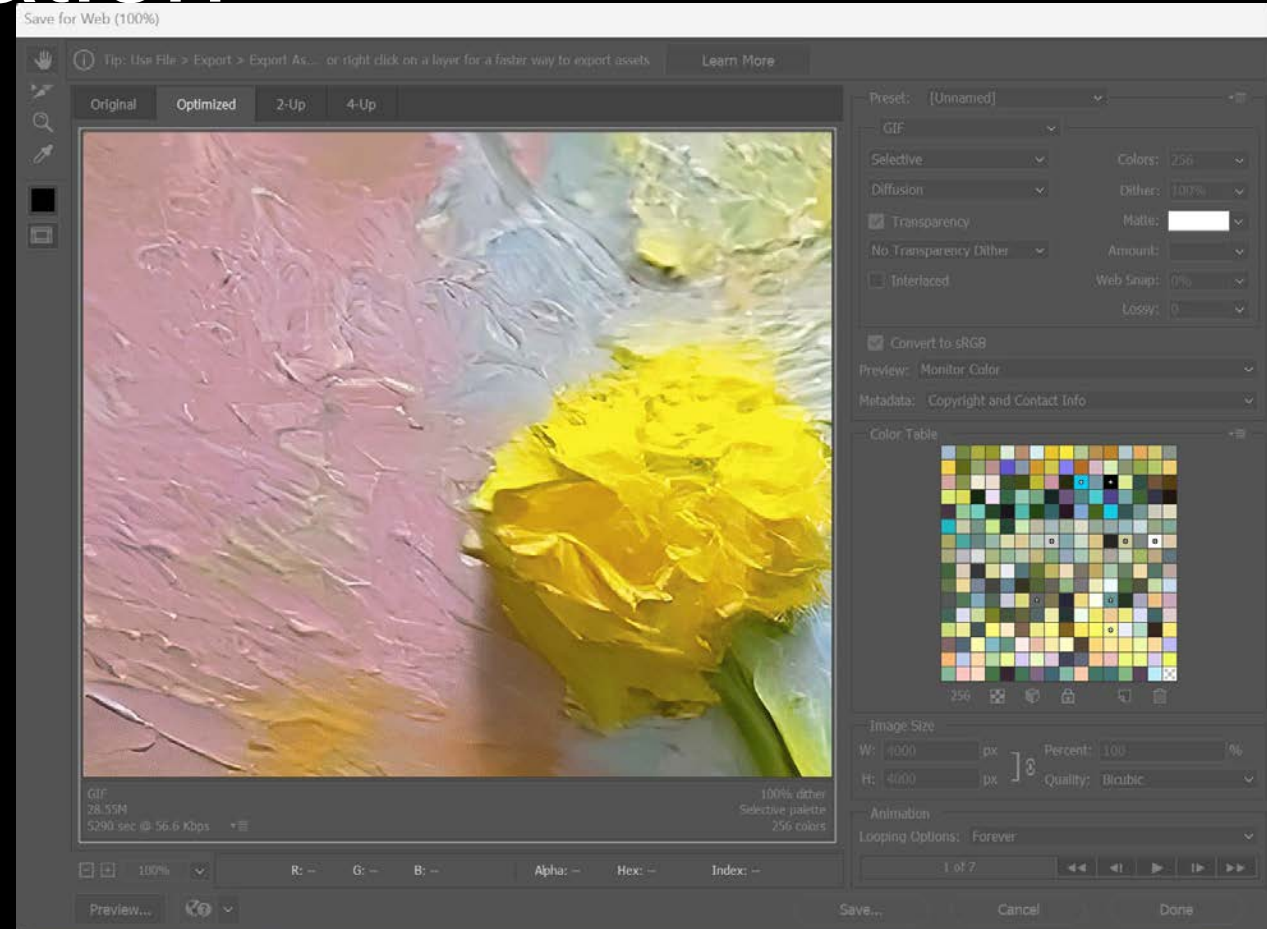- Adding images to the timeline
- Creating and editing frames
- Previewing your animation

Preparing Your Images

- Importing images into Photoshop
- Adjusting image size and resolution
- Preparing your layers for animation
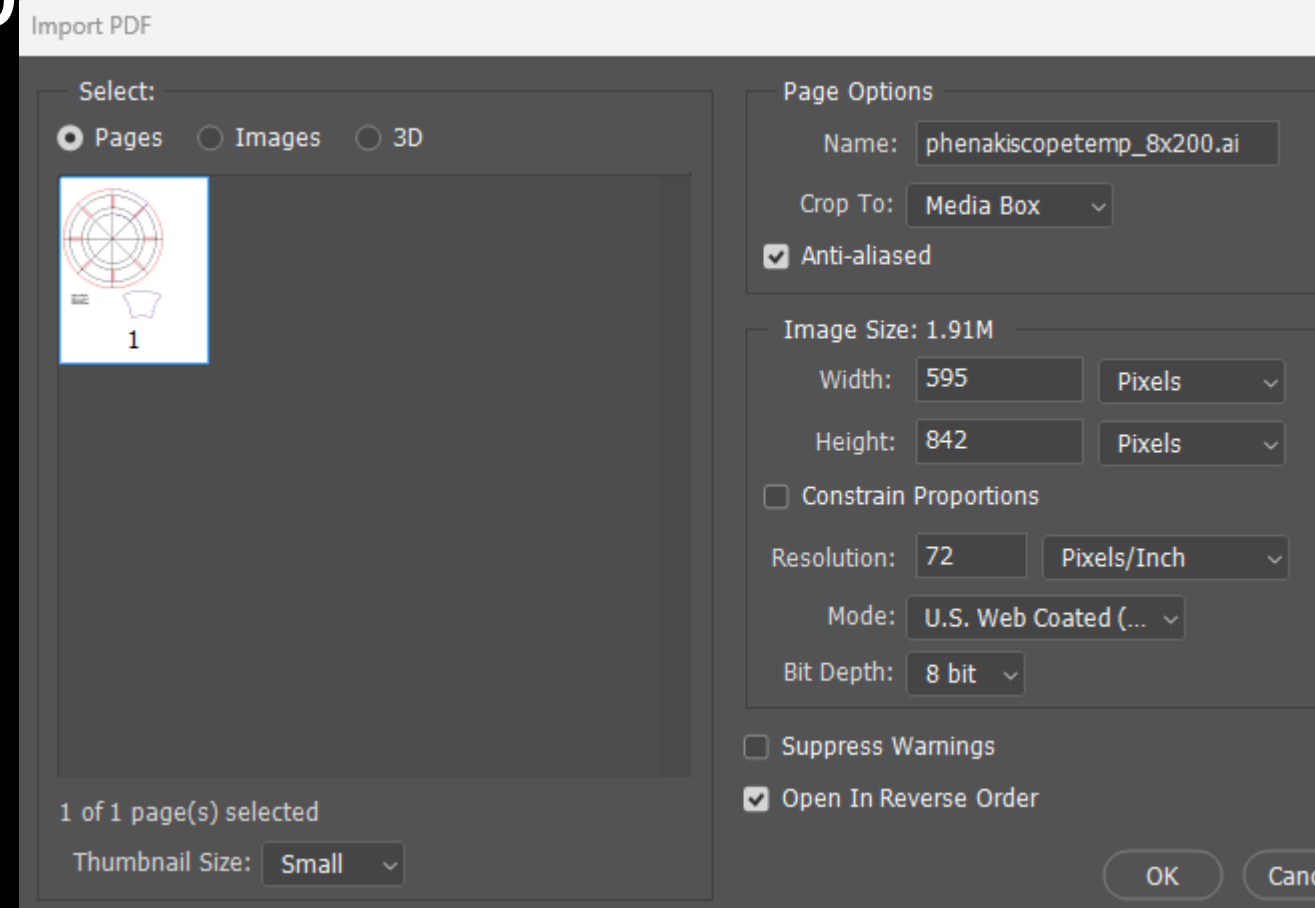
Exporting Your Animation

- Export options for animations
- GIF vs. video formats

Troubleshooting Common Issues

- Common Photoshop animation problems and solutions
- Tips for efficient workflow
- Resources for further learning

WINDOW/TIMELINE
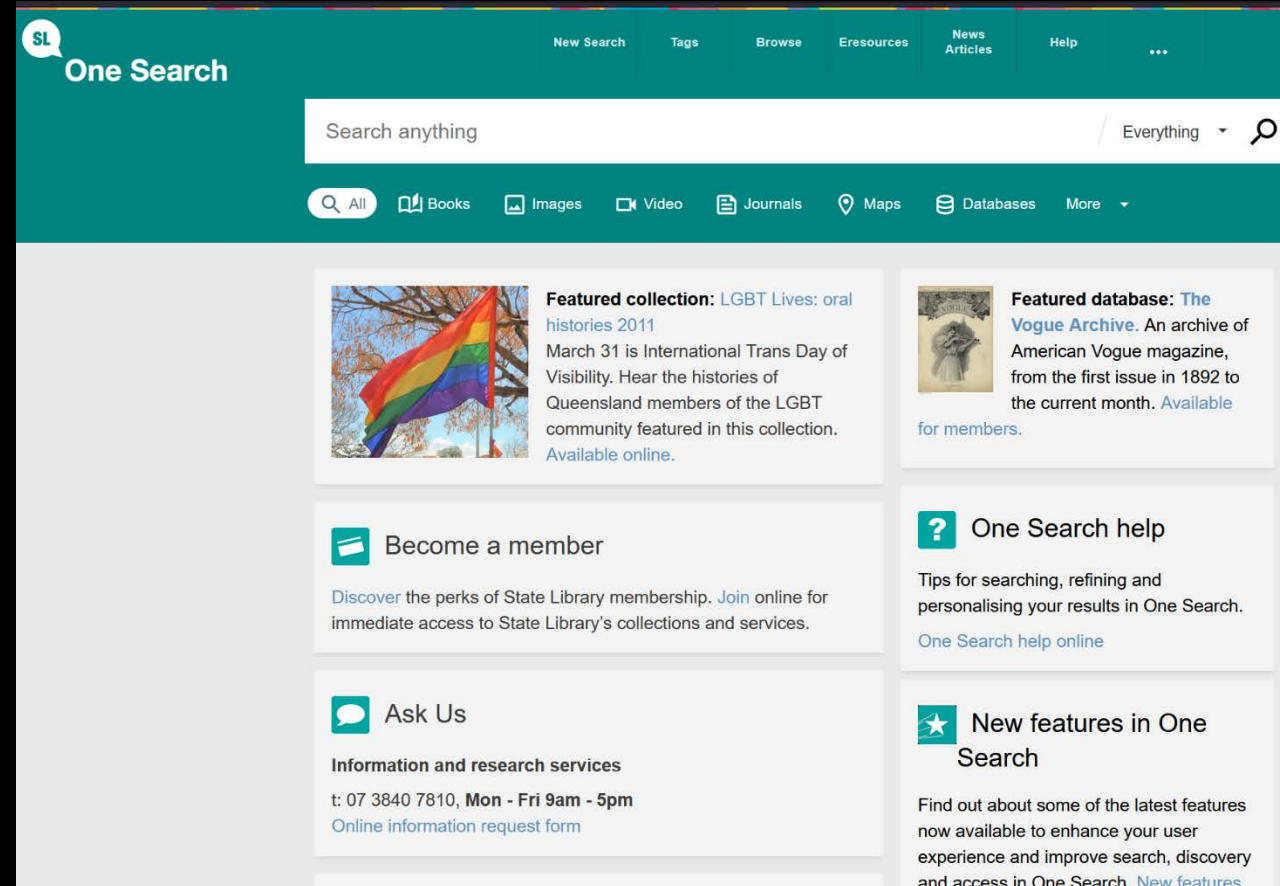
Break Time

- 15 Minutes Break

Exploring SLQ Collection

- Guided Virtual Tour of Relevant SLQ Collections
- Tips for Selecting Images for Animation Projects
- Copyright Considerations

Creating Phenakistoscope Animations

- Step-by-Step Guide to Creating Animations
- Selecting Images from SLQ Collection
- Photoshop Demonstration: Creating Frames
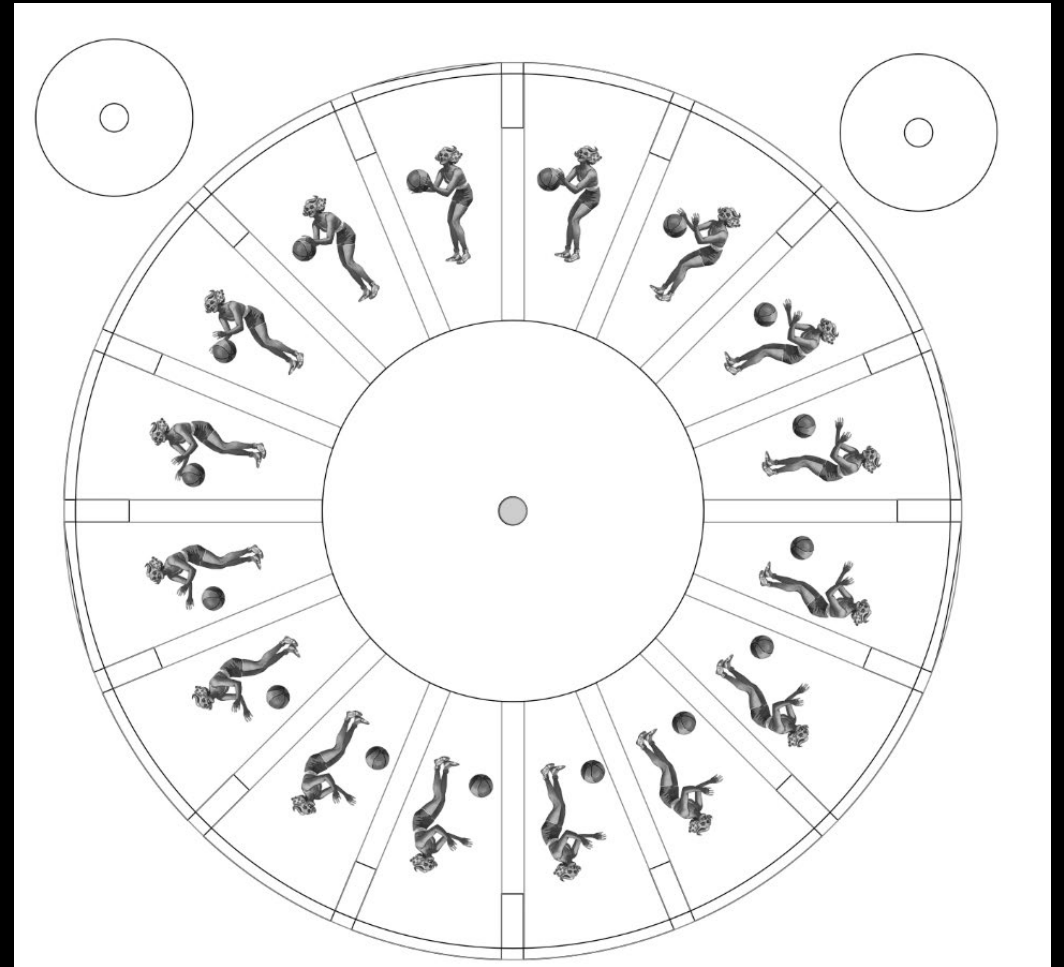
Selecting Images for Your Animation

- Criteria for selecting suitable images.
- Sources: SLQ collection, free online resources, or personal artworks.
- Tips for choosing images that will create a smooth animation.

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Creating Zoetrope Animations

- Step-by-Step Guide to Creating Animations
- Selecting Images from SLQ Collection
- Photoshop Demonstration: Creating Frames

Illustrated front cover from The Queenslander, October 15, 1936

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Illustrated front cover from The Queenslander, June 13, 1935

Preparing Your Images

- Basic editing: Cropping, resizing, and aligning images for consistency.
- Saving images in the correct format and sequence.
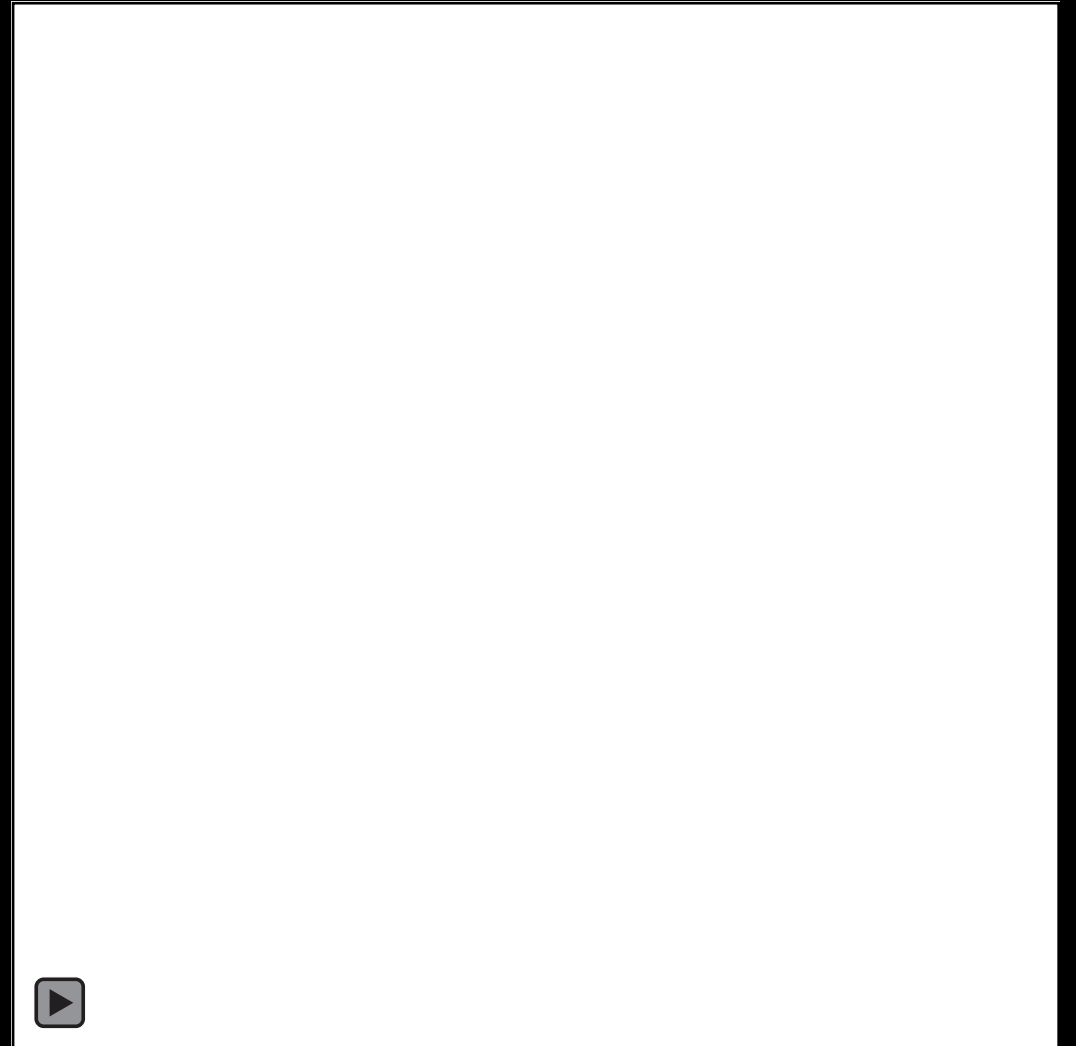
Creating Your Animation Frames

- Planning your animation: Storyboarding and visualizing the motion.
- Editing each frame: Adding movement step-by-step.
- Previewing your animation and making adjustments.

Break Time

- 15-30 Minutes Break

Printing + Assembling Zoetrope Animations

- Assembling Animations on 3D Printed Zoetrope
- Technical Support and Guidance
- Dimensions and layout for the Zoetrope strip.
- Arranging and pasting your frames in order.
- Printing and cutting out your animation strip.

Testing Your Animation in the Zoetrope

- Attaching the strip inside the Zoetrope.
- Using the Zoetrope: Lighting and spinning techniques.
- Observing and understanding the animation effect.

Troubleshooting and Tips

- Blurry images, too fast or slow motion, gaps in animation.
- Adjusting strip and frames for better results.
- Creative ideas to enhance your Zoetrope animations.

Sharing Your Work

- Opportunities to share your animation with the group.
- Feedback and constructive critique.

Wrap-Up and Next Steps

- Recap of Key Learnings from Session One
- Preview of Next Session: "Illusion Techniques"
- Feedback Collection and Closing Remarks

Q&A Session

- additional resources

References

- Bands of zoetrope pictures By Juulijs

- Image by Viktor Kosilov from Pixabay

- Illustrated front cover from The Queenslander, January 17, 1929, Agnew, Garnet (Garnet Gerald) 1886-1951, the State Library of Queensland

- **Paint Art Drawing Poster Mockup 38** By Luuqas Design

- https://www.youtube.com/shorts/aRqFydRkCgc?feature=share

- https://www.youtube.com/shorts/AWqNPEcGAKo?feature=share

- https://www.youtube.com/shorts/AWqNPEcGAKo

- https://youtu.be/OIhQh-f1-94

- https://youtu.be/mAfIS_s_aqo

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THANKS FOR ATTENDING

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