Computer Graphics and Animations

ADOBE PHOTOSHOP 2

Color correction in Photoshop;
Creating Shapes and Manipulating Text in Photoshop

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Color Correction in Photoshop

- **Color correction** - modifying tonal and chromatic balance using specific adjustment tools

- Key methods include:
  - Levels and Curves for tonal range and contrast
  - Exposure for overall light intensity
  - Vibrance and Saturation for color intensity
  - Hue for color shifts
  - Black & White for grayscale conversion
  - Color Lookup for applying preset color grading

Color Correction Using Levels

- **Levels** adjustment modifies image tonal range by adjusting shadows, midtones, and highlights

- Two main methods:

  - Direct adjustment via *Image > Adjustments > Levels* (applies changes directly)

  - Adjustment layer via *Adjustments panel > Levels* (non-destructive, flexible)

- Levels use sliders to enhance black and white richness for improved contrast

- Adjustment layers can be edited, hidden, duplicated, grouped, or have their opacity changed

- Levels affect the selected layer beneath and allow easy toggling of the effect

Advanced Levels Adjustments & Channels

- Levels adjustment operates on the RGB channel by default (affects all colors)
- Individual color channels (Red, Green, Blue) can be adjusted for targeted color correction
- Moving sliders to the left or right adds or reduces color intensity within each channel
- Midtone slider adjusts overall lightness or darkness of the image
- Moderate adjustments improve image depth and richness without overcorrection
- Example: Levels correction enhances contrast and restores detail to washed-out images

Color Correction Using Curves

- **Curves** adjustment enhances color richness beyond levels

- Accessing via *Adjustments* > *Curves*, opening a curve interface with control points

- Default curve line can be manipulated by dragging points to adjust brightness and contrast

- Moving points upward increases brightness; downward decreases brightness

- Multiple points can be added along the curve for precise tonal control

- Curves work on RGB channel collectively or on individual Red, Green, Blue channels

- Subtle adjustments preferred to avoid overcorrection

- Experience improves effectiveness in achieving desired color balance

Enhancing Image Quality with Vibrance & Exposure

- **Vibrance** adjustment increases color richness and saturation subtly

- Vibrance slider moves right to enrich colors, left to desaturate

- Ideal vibrance level depends on the specific image, avoiding over-enhancement

- **Exposure** adjustment controls overall image brightness and darkness

- Exposure slider increases or decreases light intensity

- Offset and gamma correction: advanced exposure settings, generally used with caution

- Small exposure adjustments help reduce image harshness and improve tonal balance

- Combining vibrance and exposure refines image appearance effectively

Saturation & Hue for Advanced Color Correction

- **Saturation** adjusts color intensity, making colors richer or duller
- Saturation effect is stronger than vibrance; subtle adjustment recommended
- **Hue** shifts overall image colors without affecting whites or blacks
- Hue can target specific color channels: Master, Reds, Yellows, etc.
- Selective hue adjustments alter only chosen colors for precise correction
- Ideal scenarios with sharp colors enhance the effectiveness of hue adjustments
- Layer visibility toggling helps compare before and after effects
- Hue and saturation are essential tools for refining image color balance

Converting Images to Black & White

- Adding a **Black and White** adjustment layer to convert the image
- Finding the Black and White adjustment under adjustment layers
- Multiple presets available: Default, Blue, Green, Infrared, Red, etc.
- Scrolling through presets using the mouse wheel for quick preview
- Adjusting individual color sliders to control black/white intensity
- Using the Default preset for a balanced effect
- Black and White adjustment adds creative control over grayscale images

Color Lookup Filters

- **Color Lookup** adjustment layers apply preset color grading effects
- The *Load 3D LUT* menu provides a variety of filter presets
- Presets can be previewed by scrolling through the list
- Filter intensity is adjustable via the opacity slider
- Effects range from subtle enhancements to more dramatic looks
- Some presets create warm, cool, washed-out, or harsh color tones
- Multiple filter options allow for experimentation and comparison
- Advanced settings are generally unnecessary for basic color grading

Selective Color Correction

- **Selective color correction** is achieved via the Replace Color adjustment
- The *Eyedropper Tool* samples the target color to replace
- The replacement color is chosen from the results panel to update the image
- The method offers higher accuracy than Hue and Saturation adjustments
- The Fuzziness slider controls the blending smoothness of the replaced color
- Hue, saturation, and lightness of the selected color can be individually adjusted
- Saturation can be reduced to fully desaturate the color or increased for vibrancy
- Confirming final adjustments by clicking OK to apply the color change

Exercise 1

- Open and prepare image files for correction

- Apply **Levels** to enhance tonal range by adjusting shadows, midtones, and highlights

- Use **Curves** for fine-tuned contrast and subtle RGB channel adjustments

- Add **Vibrance** and **Hue/Saturation** layers to enrich and balance overall color intensity

- Adjust **Exposure** for improved lighting while preserving highlight detail

- Apply **Color Lookup** filters with *3D LUTs* to introduce stylized effects

- Use **Replace Color** for targeted hue modification with saturation and lightness control

- Save the work (**Ctrl/Cmd + S**)

Exporting Files from Photoshop

Overview of Exporting Formats

- Exporting projects in **PDF**, **JPEG**, and **PNG** formats

- Choosing between formats based on final use: **print**, **web**, or **transparent background needs**

- Accessing export functions via:

  File > Save As for PDF and JPEG

  File > Export > Export As / Quick Export As for PNG

- If *Save As* does not show all formats, enabling **Legacy Save As** in *Preferences > File Handling*

- Choosing location; naming the file

PDF, JPEG & PNG Export Processes

Saving as PDF and JPEG (for Print)

- *File > Save As > Photoshop PDF*

  - Selecting **High Quality Print**

  - Unchecking **Preserve Photoshop Editing Capabilities** to reduce file size

- *File > Save As > JPEG*

  - Choosing quality level (Max recommended for print)

PNG for Transparent Backgrounds

- Hiding background layer to preserve transparency

- Using **Quick Export as PNG**

- PNG retains transparency; JPEG does not

Exporting for Web & Artboards

Exporting for Web Display

- Using *File > Export As* to adjust:

  - Format (JPEG, PNG)

  - Quality vs. file size

  - Resolution and scale (2x, 150%)

- Lower quality for faster web loading

Exporting Artboards

- Renaming artboards for organized exports

- Using **Export As** to batch-export multiple designs

- Selecting specific boards and customize each format and quality before exporting

Introduction to Shapes in Photoshop

- Overview of **shape creation tools** within Adobe Photoshop

- Introduction to basic **geometric** shape tools (rectangle, ellipse, polygon, etc.)

- Techniques for constructing **custom** and **complex** shapes

- Methods for modifying and transforming shape layers

- Understanding shape properties: **fill**, **stroke**, and **path** operations

- Application of shapes in non-destructive workflows

- Importance of using vector shapes for scalability and precision

Creating & Manipulating Basic Shapes

- Basic shapes include **rectangles**, **ellipses**, **triangles**, **polygons**, and **lines**

- Accessing the *Rectangle Tool* by holding the *Shape Tool* icon (shortcut: **U**)

- Clicking and dragging to draw shapes; holding **Shift** to constrain proportions (create perfect squares, circles)

- Using the *Move Tool* to reposition shapes and accessing *Show Transform Controls* for resizing

- Scaling shapes can be uniform (default) or non-uniform by holding **Shift** during transformation

- Shape color is defined by **Fill** (interior color) and **Stroke** (border color)

- Fill options include solid colors, gradients, and patterns

- Patterns and gradients can be customized by adjusting color, angle, and scale

Advanced Shape Customization

- **Gradient types:** linear, radial, angle, reflected, and diamond
- **Swatches** offer preloaded and custom color palettes, organized into categories (pastel, light, dark)
- Stroke settings: width, solid lines, dashed lines, and access to stroke presets
- *Ellipse*, *Triangle*, and *Polygon Tools* allow shape diversity; polygon sides can be specified numerically
- Each shape is created on a separate layer, enabling independent editing
- Lines are created with the *Line Tool* and only utilize strokes (no fill)
- Layer panel shows each shape on its own layer for easier manipulation
- Fill and stroke customization tools apply consistently across all shape types

Creating Custom Shapes

- Creating a new file for **custom shape** demonstration
- Selecting the *Custom Shape Tool* from the toolbar
- Choosing fill and stroke colors; adjusting stroke width
- Browsing shape categories (animals, trees, boats, flowers)
- Appending default shapes; importing additional shapes (*.csh format)
- Creating shapes by clicking and dragging on the canvas
- Holding **Shift** to maintain proportional dimensions
- Removing stroke for detailed shapes to enhance appearance

Creating Compound Shapes

- Modifying **corner radius** for shapes (rounded corners)

- Using **Path Operations** to create compound shapes:

  - **Combine Shapes**: merges multiple shapes into one layer

  - **Subtract from Shape**: removes overlapping areas

  - **Intersect Shape Areas**: keeps overlapping regions only

- Workflow: select *Shape Tool* → choose operation mode → create or modify shapes

- Adjusting corner curvature directly on shapes for customization

Creating Complex Shapes

- Using the *Pen Tool* to draw custom, **complex shapes**

- Creating points by clicking (sharp angles) or clicking and dragging (curves)

- Closing the path to complete the shape

- Other pen tools:

  - *Freeform Pen Tool*: drawing shapes freely without multiple clicks

  - *Curvature Pen Tool*: creating and editing curved shapes easily, similar to **Adobe Illustrator**

- Importance of Pen Tools for advanced shape creation beyond preset shapes

Modifying Shapes

- **Anchor Points**: Points that define the shape's outline

- **Handles**: Control the curve of anchor points

- *Direct Selection Tool*: Select and adjust individual anchor points & handles

- *Add/Delete Anchor Point Tools*: Add or remove anchor points to change shape details

- *Path Selection Tool*: Move the entire shape without editing points

- *Convert Point Tool*: Change anchor points from curved to sharp angles and vice versa

- **Note**: Modifying a live shape converts it into a regular path for full customization

Exercise 2

- Create a new 8x8-inch project – the first Poster design

- Import image:
  - Go to *File > Place Embedded*
  - Select image and place it
  - Resize and position image as needed

- Add Shapes to Poster:
  - Use the *Rectangle Tool* to create shapes
  - Sample colors with Color Picker
  - Modify shapes by adding anchor points and dragging with *Direct Selection Tool*
  - Duplicate shapes with **Ctrl/Cmd + J** or **drag + Alt/Option** key
  - Adjust layers, colors, and position for desired effect

Exercise 2

- Add *Ellipse Tool* shape (hold **Shift** for a perfect circle)

- Use the *Eyedropper Tool* to sample and apply colors for the background and shapes

- Create a star with the *Polygon Tool*:
  - Set sides to 5
  - Adjust Style Ratio (50%) to form a star
  - Modify anchor points with the *Direct Selection Tool* for custom star shapes
  - Duplicate and resize stars; adjust colors and positions

- Add a rectangle at the bottom as a text background

- Save the project (**Ctrl + S**)

Creating Text in Photoshop

- The *Horizontal Type Tool -* creating standard left-to-right text

- The *Vertical Type Tool -* creating top-to-bottom text

- Creating **Point Te**xt by clicking once on the canvas and typing

- Creating **Area Text** by clicking and dragging to define a text box

- Point Text scaling using transform controls; used primarily for headings

- Area Text suited for body content; resizing changes text container size, not font size

- Dummy text appears by default and can be edited directly

- Font size can be preset before typing or adjusted afterward

Editing Text & Character Panel Functions

- Using the **Character Panel** to enable control over font, size, color, and spacing

- Using the **Paragraph Panel** to manage text alignment (left, center, right, justified)

- **Font styles** and **custom fonts:** selectable from the dropdown menu

- **Line spacing** (leading) used for vertical space between lines

- **Character spacing** used for adjusting the horizontal space between letters

- **Vertical** and **horizontal scaling** options: modifying text height and width

- **Formatting options:** bold, italic, uppercase, small caps, subscript, and superscript

- Modifying **text color** through the color box within the Character Panel

Typing & Formatting Text Along a Path

- Using the *Pen Tool* in "Path" mode for shape creation
- Viewing paths through the Paths panel
- Managing path position with the *Path Selection Tool*
- Editing anchor points using the *Direct Selection Tool*
- Placing the *Type Tool* on path to start text input
- Aligning text along the shape of the path
- Adjusting font size and style after placement
- Creating custom path shapes for text flow

Advanced Text Options

- Switching between point text and paragraph (area) text
- Using *Type* menu to convert text orientation (horizontal/vertical)
- **Rasterizing text** to enable pixel-level editing (non-editable as text)
- **Converting text to shape** for anchor point manipulation
- Creating **work paths** from text for further path operations
- Applying **text wrap** styles like arc, bulge, shell…
- Adjusting wrap direction (horizontal or vertical)
- Accessing font, size, and style options in the text toolbar

Exercise 3

- Finalizing the Poster design with text
- Create point text for heading using the *Type Tool*
- Add paragraph (area) text for body content
- Adjust font size (12pt to 14pt), style (bold), and color (white)
- Apply text wrap (arc upper) to heading for stylized effect
- Insert additional text elements like discount offers
- Reposition design elements using **Shift** and **Arrow** keys
- Align text layers centrally using background layer as reference
- Export final design as JPEG via *Save As* or *Export* options

Questions & Answers Homework