# Lesson Plan: Selective Restoration with the Photoshop History Brush

Combining AI-Assisted Selections with Historical Pixel Painting for Selective Color & Retouching

| SUBJECT AREA | SKILL LEVEL | DURATION | KEY TOOLS |
|---|---|---|---|
| Digital Imaging / Graphic Design | Beginner to Intermediate | 30–45 Minutes | History Brush (Y), Select Subject, Snapshots |

## Learning Objectives

By the end of this lesson, students will be able to:

- Navigate the **History Panel** and create **Snapshots** to establish pixel-based restoration states.
- Execute a **selective color** effect by combining AI-assisted selections (**Select Subject**) with the **History Brush Tool (Y)**.
- Troubleshoot common History Brush constraints, specifically **canvas dimension mismatches** and **destructive vs. non-destructive layer structures**.
- Evaluate when to choose the History Brush over modern **Adjustment Layers and Layer Masks**.

## Part 1: Theory — Why and When to Use the History Brush

In modern Photoshop workflows, **Adjustment Layers and Layer Masks** are generally preferred because they are non-destructive and endlessly editable. However, the **History Brush** remains an essential tool in specific production scenarios because it paints **actual historical pixel data** directly from a prior state or snapshot onto an active layer.

### When to Choose the History Brush Over Other Methods

- **Fixing "Over-Retouched" Pixels:** When using destructive pixel-based tools—such as the *Spot Healing Brush*, *Clone Stamp*, *Liquify*, or *Dodge & Burn*—on a retouching layer, an adjustment mask cannot undo a localized mistake. The History Brush allows you to paint back original skin texture or fine details at 20–30% opacity to blend edits naturally.
- **Blending Heavy Filter Stacks:** When applying multiple destructive filters (e.g., *Gaussian Blur* + *Noise* + *Sharpen*) to a merged layer, saving a **Snapshot** beforehand lets you selectively paint sharpness back into focal points (such as eyes in a portrait) without rebuilding complex filter masks.
- **Speed on Single-Layer Edits:** For quick, one-off edits on a flat image where file size and layer simplicity matter, painting from a snapshot is faster than constructing multiple masked adjustment layers.

| Feature | History Brush Tool (Y) | Adjustment Layers & Masks (B) |
|---|---|---|
| **Workflow Type** | **Destructive** (modifies actual pixels on the active layer) | **Non-Destructive** (hides/reveals effects via a mask) |
| **Best Use Case** | Undoing localized pixel edits (healing, filters, liquify) | Global color, tone, and exposure adjustments |
| **File Size Impact** | **Low** (keeps layer count minimal) | **Higher** (adds extra layers and mask channels) |
| **Long-Term Flexibility** | **Limited** (history states disappear when document closes) | **High** (masks remain editable after saving as PSD) |
| **Canvas Constraints** | Stops working if canvas is cropped or resized | Adapts automatically to crops and resizing |

## Part 2: Guided Lab Activity (Selective Color Rose)

**1. ORIGINAL STARTING IMAGE**



**Initial Snapshot:** Full-color source state captured in the History panel before applying global edits.

**2. FINAL SELECTIVE COLOR RESULT**



**Finished Edit:** Street converted to black & white while the rose's original pixels are painted back.

### Phase 1: Workspace & Baseline Setup (5 Minutes)

1. **Open the Practice Image:** Load the original full-color sample image into Photoshop. Ensure you are working directly on the image layer rather than using an Adjustment Layer, as the History Brush only reads pixels from the active layer itself.
2. **Open the History Panel:** Navigate to **Window > History** in the top menu bar.
3. **Verify the Source State:** Confirm that the small **History Brush icon** sits in the far-left square next to the initial thumbnail **Snapshot** at the very top of the panel.

### Phase 2: Troubleshooting & Snapshot Creation (5 Minutes)

> **Instructor Troubleshooting Note: "Canvas Size Does Not Match"**
>
> If an image was pasted into a new document or cropped after opening, Photoshop blocks the History Brush because the pixel dimensions no longer match the initial snapshot. Teach students how to reset their baseline:

1. Click the **camera icon** at the bottom of the History panel to create **Snapshot 1** at the current canvas dimensions.
2. Click the empty box to the far left of **Snapshot 1** so the tiny History Brush source icon moves next to it.

### Phase 3: Global Destructive Edit & Precision Selection (10 Minutes)

1. **Apply Black & White Directly:** Go to **Image > Adjustments > Black & White** (or press `Alt+Shift+Ctrl+B` / `Option+Shift+Cmd+B`) and click **OK**. Notice that the History Brush source icon remains anchored to your color snapshot above.
2. **Isolate the Subject:** Go to **Select > Subject** (or use the **Object Selection Tool (`W`)**) to generate a selection outline ("marching ants") around the rose. Explain that this active selection acts as a digital stencil to prevent color spill onto the background.

### Phase 4: Selective Pixel Restoration (10 Minutes)

1. **Activate the History Brush:** Press `Y` on the keyboard. Ensure you select the standard *History Brush Tool* rather than the *Art History Brush Tool* nested beneath it.
2. **Configure Brush Options:** In the top Options bar, set **Mode** to **Normal** and **Opacity** to **100%**. Choose a soft round brush and resize using `[` and `]`.
3. **Paint Back Color:** Sweep the brush across the selected rose. Because the selection restricts the brush strokes, the original red and green pixels return cleanly inside the petals and stem.
4. **Clear Selection:** Press `Ctrl+D` (Windows) or `Cmd+D` (Mac) to deselect.

## Part 3: Assessment & Extension Challenge (10 Minutes)

**Extension Task (Opacity Blending):** Have students capture a new **Snapshot** of their selective-color rose, apply **Filter > Blur > Gaussian Blur** (Radius: 10px), set the History Brush source to the new snapshot, lower brush **Opacity to 50%**, and paint over the center of the rose to create a soft-focus vignette effect.

**Exit Ticket Question:** *"Why did we have to delete the Black & White Adjustment Layer before using the History Brush, and in what real-world scenario would keeping the Adjustment Layer be the better choice?"*