CONTENT AWARE FILL IN PHOTOSHOP

GETTING STARTED

- Open your photo in Photoshop via LrC or ACR

- Make a selection of the area to be fixed

  - Use the Lasso Tool

  - Don't be precise with the selection - PS will use the extra content to help with blending

- Click on Edit > Content Aware Fill to open CAF workspace

THE CONTENT AWARE FILL WORKSPACE

- 4 Tools available in upper left corner

  - Sampling Brush Tool - for adding or subtracting areas to be considered by PS for replacement content

  - Lasso Tool - for adjusting the selection or making a new selection

  - Hand Tool - to move around a zoomed image

  - Zoom Tool - to zoom, of course

CONTENT AWARE FILL CENTER PANEL

- Shows original image with selection and sampling area to be used by PS for creating the replacement content

- Sampling area shading color and opacity can be changed to suit your needs (see next slide)

- Shows zoomed portion of image with fill applied; zoom level can be adjusted with slider below image

- Spinning wheel shown to right of zoom slider while PS is recalculating based on setting changes

CONTENT AWARE FILL MENU - RIGHT SIDE OF SCREEN

- Sampling area overlay (show/don't show)

    - Opacity - use slider to adjust strength of overlay

    - Color - Click on color to open color picker to change color; Indicates Sampling Area or Excluded Area

- Sample all Layers - off by default, but may be useful in some situations

FILL SETTINGS

- Color Adaptation (none, default, high, very high) - adjust as needed to improve the color blending result achieved by PS

- Rotation Adaptation (none, low, medium, high, full) - adjust as needed to improve the orientation of the result

- Scale - helps with the size of the replacement content especially with repeating patterns like bricks

- Mirror - allow horizontal flip of selected replacement content - good for images with horizontal symmetry

OUTPUT SETTINGS

- Current Layer - places new content directly on your original layer - destructive edit

- New Layer - creates a new layer containing only the replacement content

- Duplicate Layer - creates a new layer containing replacement content built into the original content - adds a lot of file size

FINAL DECISION CHOICES

- Reset all settings - puts all the choices you've made back to default settings

- Cancel - closes the CAF Workspace and goes back to original layer

- Apply - applies the changes to the image in the workspace allowing you to make a new selection to fix another distraction without leaving the workspace

- OK - applies the changes and creates layers as chosen in output settings; closes CAF workspace
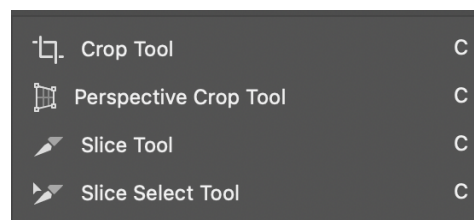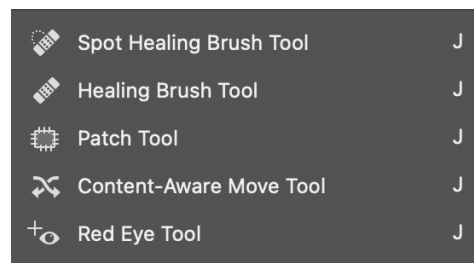
Content-Aware Tools in Photoshop

The Woodlands Camera Club
Post-Processing SIG
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Content-Aware Tools in Photoshop

- Content-Aware Fill

- Spot Healing Brush Tool

- Healing Brush Tool

- Patch Tool

- Content-Aware Move Tool

- Content-Aware Crop

- Content-Aware Scale

Spot Healing Brush Tool	J
Healing Brush Tool	J
Patch Tool	J
Content-Aware Move Tool	J
Red Eye Tool	J

Crop Tool	C
Perspective Crop Tool	C
Slice Tool	C
Slice Select Tool	C

Spot Healing Brush Tool

- Intended for small areas

- No control over reference area used to heal

- BUT….Very effective in many cases

- General Steps

  - ✦ (Optional) Create an empty layer over image, highlight it

  - ✦ Select Spot Healing Brush Tool

  - ✦ Soft brush, size as needed (change hardness if you don't get the results you want)

  - ✦ Mode: Normal (usually)

  - ✦ Brush items to remove, repeat as needed

Healing Brush Tool

- An enhancement of the Clone Stamp Tool

- Like the Clone Stamp Tool, uses reference pixels selected by the user

- Also matches the texture, lighting, transparency and shading of the sampled pixels to the pixels being healed

- Uses "modes" that change the result (normal, replace, darken, lighten, etc)

- General Steps

  - ✦ (Optional) Create an empty layer over image, highlight it

  - ✦ Select Healing Brush Tool

  - ✦ Medium soft brush, size as needed

  - ✦ Mode: Normal (usually), Sample All Layers, Aligned (optional)

  - ✦ Alt/option click where you want to start the reference area

  - ✦ Brush items to remove, repeat as needed

Patch Tool

- Replaces objects in the image with surrounding textures and colors (content-aware option)
- Replaces OR duplicates objects using some other magic (normal option)
- SOME of these effects can't be done by Content Aware Fill
- General Steps (content-aware option)
    - ✦ Select the object you want to remove
    - ✦ Choose the patch tool
    - ✦ Choose the content-aware option (not the normal option)
    - ✦ Start with these values for Structure (7) and Color (5)
    - ✦ Drag the object to an area similar to the object's original surroundings, then click the check mark to accept
    - ✦ You may have to clean up the source area for the object using clone stamp or CA fill

Patch Tool (cont.)

- General Steps (normal option)
    - ✦ Select the object you want to remove (or duplicate)
    - ✦ Choose the patch tool
    - ✦ Choose the normal option (not the content-aware option)
    - ✦ Start with these values for Structure (5) and Color (5)
    - ✦ Drag the object to an area similar to the object's original surroundings, then click the check mark to accept
    - ✦ You may have to clean up the source area for the object using clone stamp or CA fill
    - ✦ Patch tool does not work with an empty layer

Content-Aware Move Tool

- Moves or extends/expands/shrinks objects in the image

- These effects can't be done by Content Aware Fill

- General Steps (Move Option)

  - ✦ (Optional) Create an empty layer over the image, highlight it

  - ✦ Select the object you want to move

  - ✦ Choose the move tool

  - ✦ Choose the Move option (not the Extend option)

  - ✦ Choose intermediate values for Structure (4) and Color (5)

  - ✦ If you need to resize or rotate the moved object, check the box for Transform on Drop

  - ✦ Move and/or resize/rotate the object (click and drag), then click the check mark to accept

  - ✦ You may have to clean up the source area for the object using clone stamp or CA fill

Content-Aware Move Tool (cont.)

- General Steps (Extend Option)

  - ✦ Select the object you want to copy or "extend"

  - ✦ Choose the move tool

  - ✦ Choose the Extend option (not the Move option)

  - ✦ Choose intermediate values for Structure (4) and Color (5)

  - ✦ If you need to resize or rotate the extended object, check the box for Transform on Drop

  - ✦ Move and/or resize/rotate (a copy of) the object (click and drag), then click the check mark to accept

  - ✦ You may have to clean up the source area for the object using clone stamp or CA fill

Content-Aware Crop

- Can "crop" to extend canvas and fill-in simple backgrounds beyond original image

- Content-aware Fill can achieve similar results

- General Steps

  ✦ Select crop tool

  ✦ Check "Content-Aware" in option bar

  ✦ **Establish desired crop**, click check mark or enter

  ✦ May require significant clean-up

FYI: Adobe Says…

- "Healing Brush and Spot Healing Brush match the texture, lighting, transparency and shading of the sampled pixels to the pixels being healed"