Content-Aware
Clone, move, patch and heal an image the smart way using the intelligent Content-Aware tools

In this tutorial, we'll explore ways to make tools perform more effectively, thanks to the Content-Aware option. This intelligent feature can dramatically speed up your editing. When you paint with the Spot Healing Brush over an unwanted pimple on a model's cheek, the tool will automatically sample adjacent skin pixels, place them over the pimple and seamlessly blend the join between cloned pixels and their neighbors. However, if the pimple is too close to a facial feature such as an eyebrow, the brush may inadvertently sample some hair and place it over the pimple. This forces you to undo the edit and switch to its cousin the Healing Brush, so that you can manually Alt-click to choose a patch of clear skin to place over the pimple.

Alternatively, by activating the Spot Healing Brush's Content-Aware option it will analyze the pimple in context With its surroundings, enabling the tool to take a suitable skin sample rather than an inappropriate eyebrow to place over the pimple. The Content-Aware option enables tools such as the Spot Healing Brush to become a bit more intelligent, so that they can perform more effectively. However, even with this IQ boost they still have their limitations. The Content-Aware Spot Healing Brush will usually do a decent job of replacing a horizontal power cable that crosses a building's vertical lines with appropriate pixels, but if the cable overlaps a more complex shape, then the sampled and relocated pixels will be unlikely to blend successfully with their neighbors. In these instances you'll still need the Healing Brush or Clone Stamp tools to manually sample more appropriate pixels.

So Content-Aware technology isn't infallible, but as you'll see, they can be very useful when retouching certain images.

The Content-Aware Move Tool
Recompose your subjects and fill the gap that they leave with this new tool

When it comes to taking a picture of animals, you don't have much control over their behavior. This can cause you to compromise when it comes to composing your photographs. Take this photo of some sheep, for example. Ideally, we would have preferred the sheep to take a few steps to their left to fill the gap between the group and the tree. In older versions of Photoshop we could solve this problem by grabbing the Patch tool, setting it to destination and then drawing round the two sheep on the far left.

We could then drag them closer to the tree to relocate them. We'd then need to use the Clone Stamp tool to replace the original two sheep with an empty section of ground and sky.

Thanks to the new Content-Aware Move tool you can work more quickly. In the tutorial below you'll discover how to select the sheep, drag them into a new position and then watch the gap that they leave becomes filled with appropriate pixels. You'll also learn how to tweak the Move tool's Adaptation options so that the gap left by the relocated An object is filled with content that blends more effectively with its surroundings.
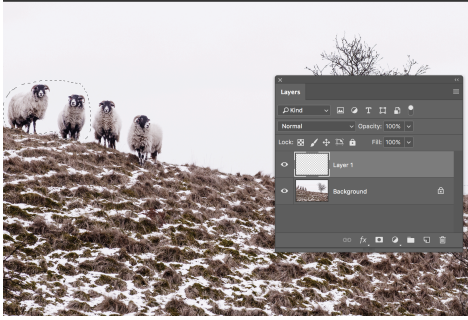
Recompose Shots with Content-Aware
1. Set up the options
In the Options bar, set the Mode to Move.
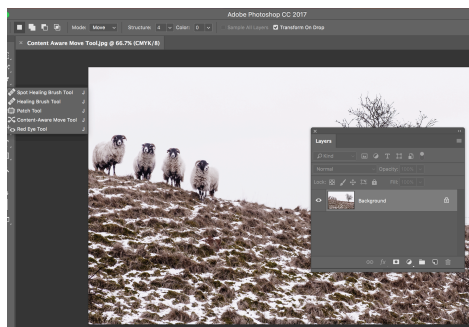
2. Create new layer

From the menu go to Layer > New Layer. Click OK. Tick the Sample All layers box in the Options bar. This enables the moved and filled areas to be applied to the transparent layer, leaving the original layer untouched. Draw around the elements you want to move.

3. Drag and drop

Drag the elements to the new location. They should blend with their new surroundings, and the gap they leave should be filled with appropriate detail. You may need to draw and move a few times for the tool to work.