EMBRACING SMART OBJECTS

infinite creativity
without hurting a pixel

BY DEREK LEA

Photoshop's creative process offers virtually unlimited freedom, letting us edit and manipulate images almost endlessly to produce amazing digital art. However, this creative freedom comes with a price: each time pixels are scaled, rotated, or transformed in any way, they are remapped, leading to bit-by-bit image deterioration. Do this enough times and the artwork will soften, and fine detail will eventually begin to disappear.

Previous Photoshop versions allowed you to use the Free Transform feature to perform multiple revisions to pixel content before it was remapped, rather than writing the changes after each transformation. But this did not eliminate the problem; it simply minimized the damage. To address this issue, Smart Objects technology was introduced in Photoshop CS2, although it never received the attention it deserved. But Creative Suite 3's refinements to this feature now make it a must-learn.

Think of a Smart Object as a storage layer for your original artwork within the Photoshop Layers palette; no matter how many times you edit it, a Smart Object will preserve the original image content. This is because when you make something a Smart Object, it becomes an instance of the original. Certain layer functions can be used with Smart Objects, including blending modes, masks, and opacity variation. You can also group, duplicate, and transform Smart Objects, but your actions will not directly affect the original artwork and the pixels will not be remapped. This is what preserves image quality. If you want to perform an operation that alters pixel data (such as painting), the contents of the Smart Object must be edited directly.

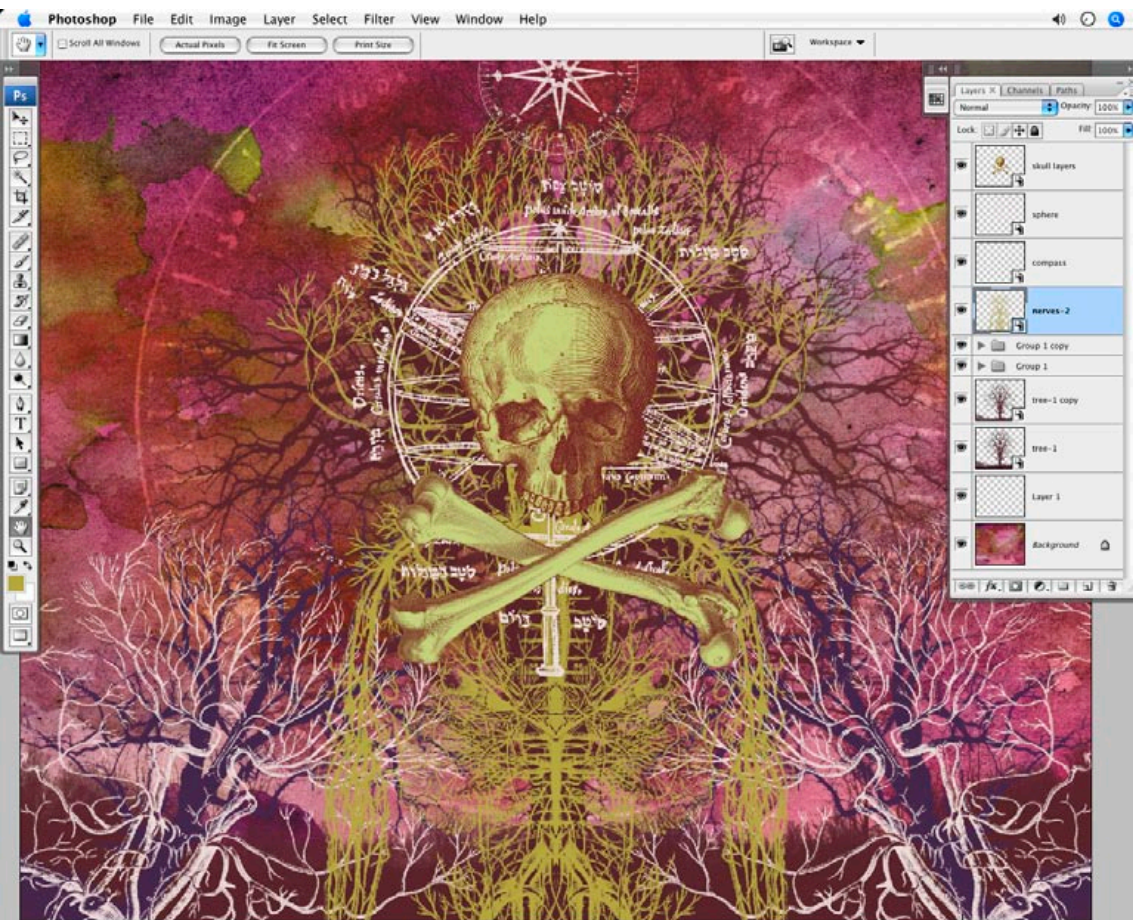| CREATING AND WORKING WITH SMART OBJECTS	ADDING AND EDITING SMART OBJECTS	DUPLICATING AND GROUPING SMART OBJECTS	USING SMART OBJECTS TO COMPOSITE	ILLUSTRATOR ART AND BLENDING
1:50	2:20	2:56	2:24	1:31

Paste

Paste As:
- ● Smart Object
- ○ Pixels
- ○ Path
- ○ Shape Layer

OK
Cancel

(ABOVE) COPY ARTWORK FROM ILLUSTRATOR AND PASTE IT INTO PHOTOSHOP: WHEN PROMPTED, CHOOSE THE SMART OBJECT OPTION FROM THE *PASTE AS* LIST—OR AN EVEN QUICKER METHOD IS TO DRAG ARTWORK FROM ILLUSTRATOR DIRECTLY INTO YOUR PHOTOSHOP FILE.

new content will replace the old content of the Smart Object, and any instances of the Smart Object will update automatically. Any transformation or warp effects applied to your instances will be preserved.

NON-LINEAR, NON-DESTRUCTIVE
The flexibility achieved by embracing Smart Objects is invaluable. Having the opportunity to make endless edits without deteriorating image quality opens the door to more experimentation and creative freedom. Being able to go back and edit or change source content at any point in the workflow does away with creative restrictions.

In the five-part video tutorial on the first page, I describe how I used Smart Objects in the creation of the feature illustration—feel free to follow along.

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TO ALTER THE COLOR OF ITS PIXELS, THE SMART OBJECT WAS TARGETED IN THE LAYERS PALETTE, THEN THE APPROPRIATE MENU COMMAND WAS CHOSEN.

HERE YOU CAN SEE THE SMART OBJECT CONTENTS INDEPENDENT OF THE LAYERED FILE. THE COLOR OF THE PIXELS WAS ALTERED.

AFTER SAVING THE CHANGES AND CLOSING THE SMART OBJECT CONTENTS, THE INSTANCES OF THE EDITED SMART OBJECT ARE AUTOMATICALLY UPDATED.
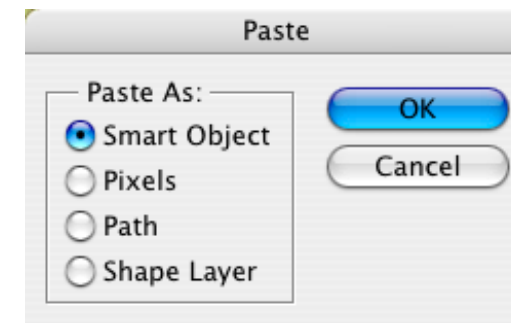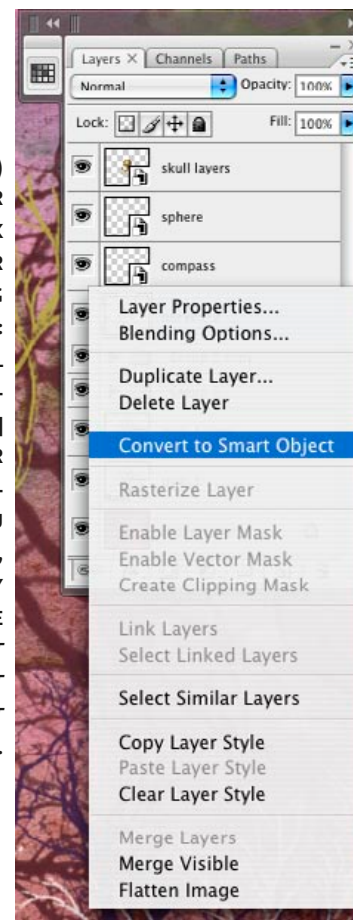
EDITING SMART OBJECTS
To edit the contents of a Smart Object, double-click it in the Layers palette, OR target it in the Layers palette and choose Layer>Smart Objects>Edit Contents from the menu; a new file will open that contains the contents of your Smart Object. Go ahead and perform edits on this file—add layers, alter size, create shape layers, or add paint tools—you can perform any operation that you would do to a .psd file. Then save the changes, and close the file. You'll immediately notice that any instances of the edited Smart Object are automatically updated.

CONVERTING LAYERS
Before performing a Free Transform operation or destructive edit to the contents of a layer, convert it into a Smart Object. Editing, rotating or resizing a Smart Object instead of a layer means pixels are not permanently rewritten. Just target a layer or a group of layers and choose Layer>Smart Object>Convert to Smart Object from the menu. You'll immediately see the Smart Object appear in the Layers palette. Multiple layers are bundled into a single Smart Object, but can be accessed later by editing the contents directly.

(RIGHT) ANOTHER QUICK METHOD FOR CONVERTING LAYERS: CONTROL [MAC]/RIGHT-CLICK [PC] ON A LAYER UNTIL A POP-UP MENU APPEARS, THEN SIMPLY CHOOSE THE *CONVERT TO SMART OBJECT* OPTION.

PLACING AND OPENING
There are different ways to bring Smart Objects into a Photoshop file. Choose File>Open As Smart Object from the menu to create a file containing a Smart Object, then build on this file or drag it into another open Photoshop file; OR choose the File>Place option from the menu, which will allow you to import Photoshop and Illustrator files into your current document as Smart Objects.

REPLACING CONTENTS
As would be expected, Smart Objects do not prevent Photoshop users from changing their minds at any point. To replace the contents of a Smart Object, target it in the Layers palette and choose Layer>Smart Objects>Replace Contents from the menu. This allows you to navigate to the new file you want to choose, select it, and click Place. The