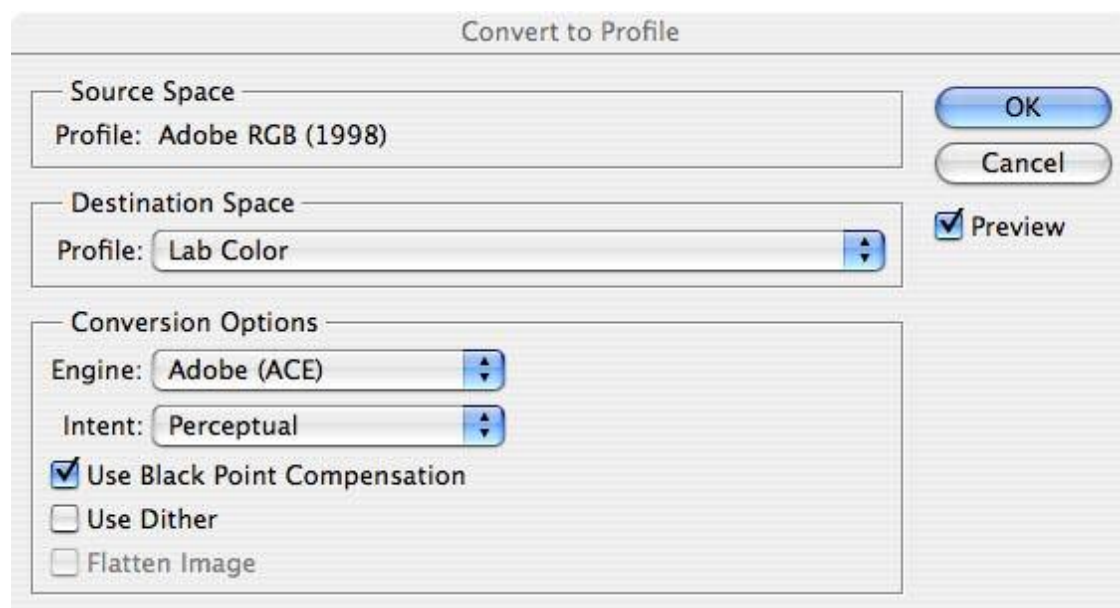


Boosting colours using LAB

1. Open your photograph in Photoshop.

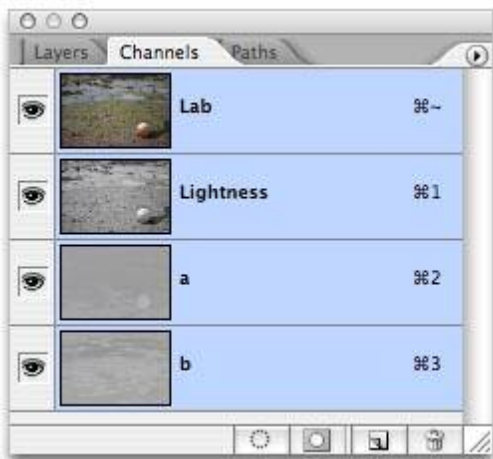


2. Use Edit->Convert to Profile (CS2) or Image->Mode->Convert to Profile (CS) to bring up the following window:

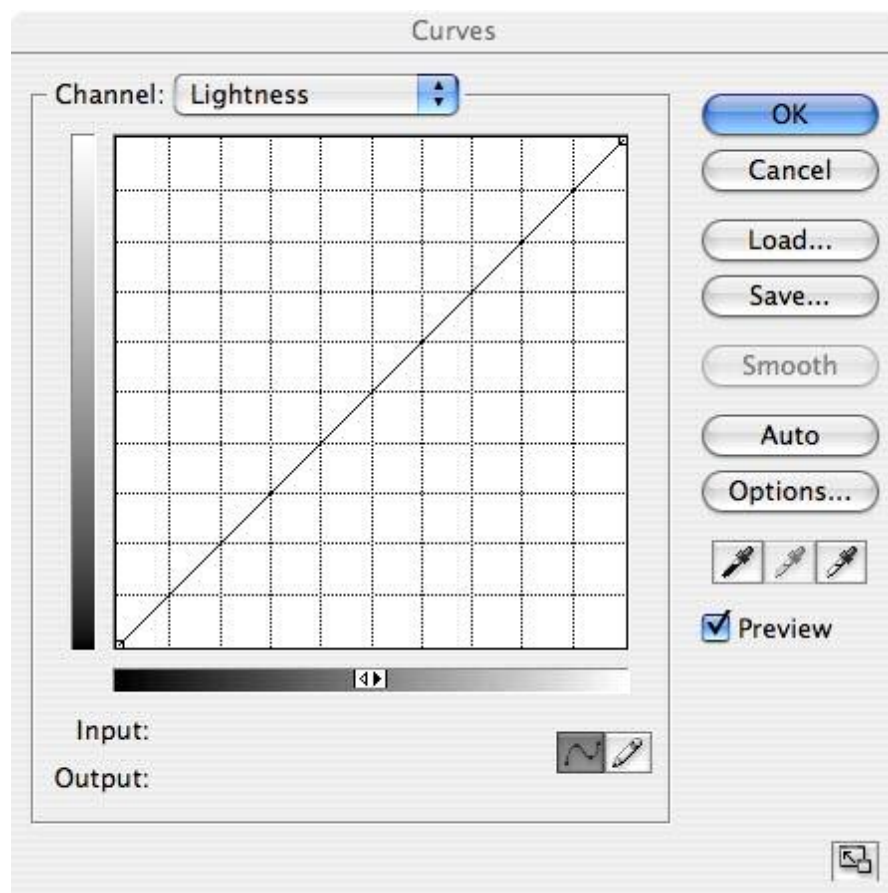


3. In the Destination Space drop down, select Lab Color. Make sure the tick box for Use Dither is unticked. Click the OK button.

Your photo is now in the Lab colour space. You should see that your Channels window shows L, A and B channels instead of the regular RGB ones.



4. We will now boost the colours in the photos. To do this choose Image->Adjustments->Curves. The curves editor appears. By default it will show you a curve for the Lightness channel.

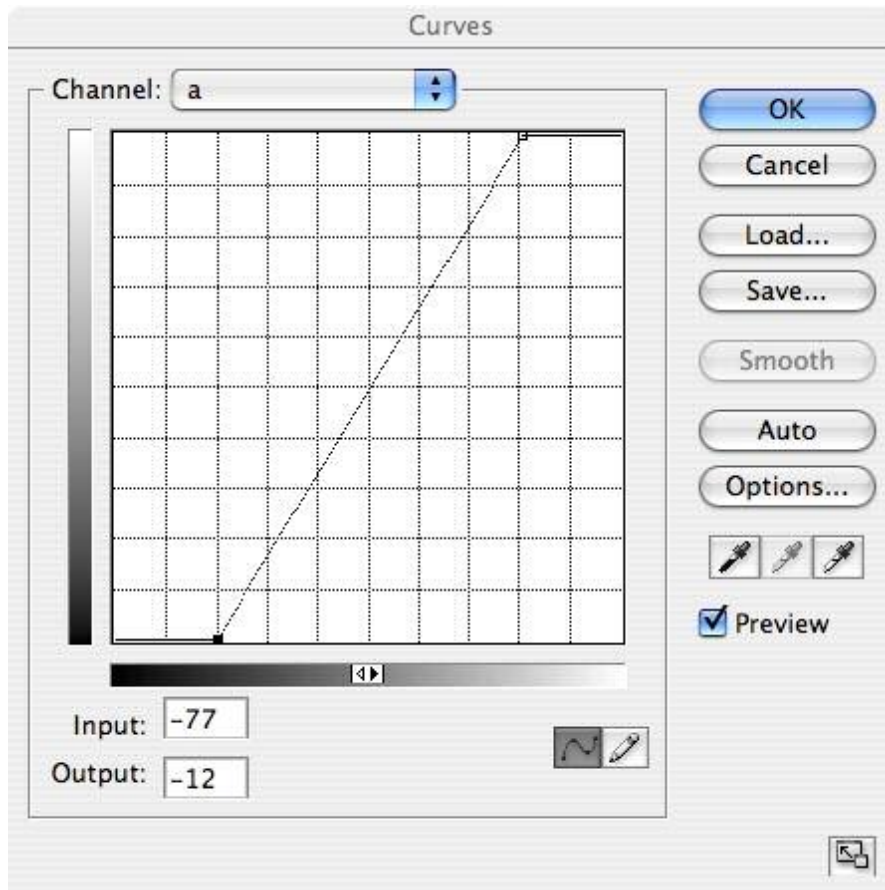


5. (Optional - Photoshop can display a small or large grid in the curve editor. I normally use the small grid. On the Mac pressing Option whilst clicking with the mouse on the grid toggles from small to large. I suspect that on the PC it will be something similar such as Alt-click or Ctrl-click.)

6. In the Curves window, change to the channel A by using the drop-down at the top of the window.

7. Click carefully with the mouse on the small rectangular dot ("handle") at the top right of the grid, and drag the dot two grid squares to the left. As you do this, the photo will go magenta. Don't worry about this for the moment.

8. Do the same to move the handle from the bottom left of the grid two grid squares to the right. This step removes the magenta tinge from the photo. You should see the following in your window:



9. Repeat the last two steps to change the B-channel curve. You will see the image turn yellow as you move the top right handle, and this yellow tinge disappear as you move the bottom left handle.

10. Click OK on the Curves window when you have made this change.

Your photo should now have more colour.



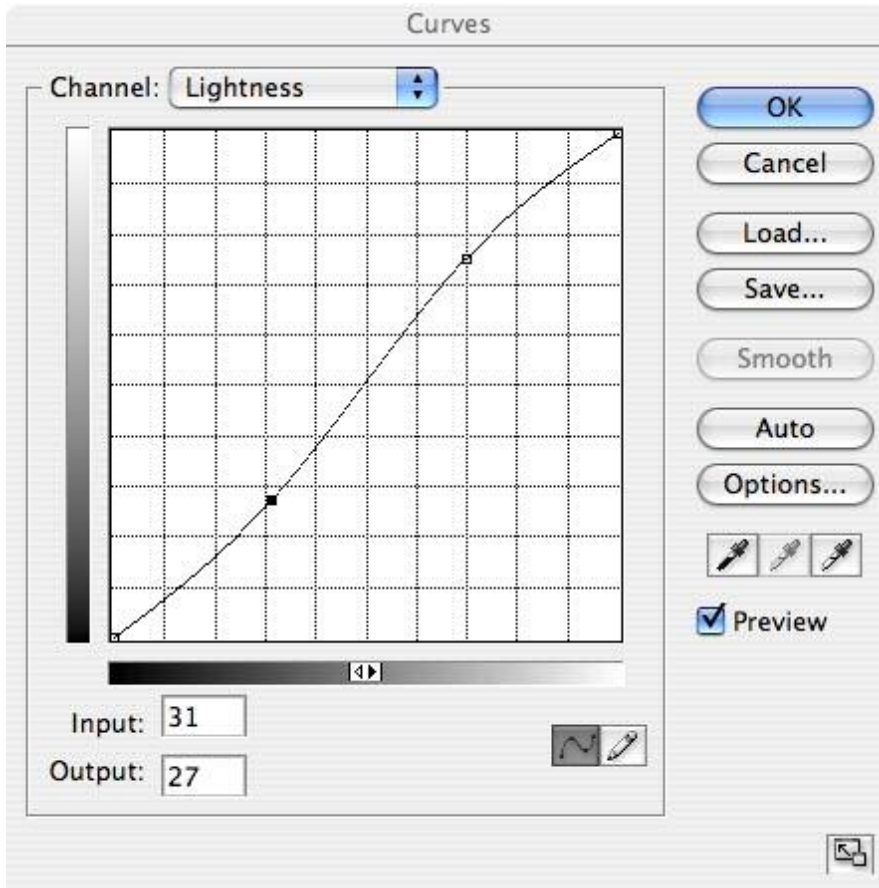
11. If you want to see the effect more clearly, then use Edit->Undo Curves, followed by Edit->Redo Curves. This sequence (which you can repeat over and over again) has the effect of toggling the curve edit on and off.

12. To make changes to the brightness of the photo, use Image->Adjustments->Curves. This time make

certain the Lightness channel is selected (it is normally, by default.)

13. Click with the mouse on the curve about two-thirds of the way up the curve. This adds a new handle, which you should drag upwards around half a grid square.

14. Repeat, clicking around one-third the way up the curve and moving the new handle down by half a grid square. You should see the following:



15. Click on the OK button.

Your image should now look slightly more punchy. This slight S-curve in the lightness channel makes shadows darker.



Local Contrast Enhancement

Next we will boost local contrast using the Unsharp Mask trick.

16. In the channels palette select the Lightness channel. The photo will change to greyscale. This is normal (and desired.)



17. Select Filter->Sharpen->Unsharp Mask. The Unsharp Mask window appears.



18. Set Amount to 150%.

19. Set Radius to 50 pixels.

20. Set threshold to 0.

21. Toggle the Preview tick box and watch the effect on the lightness channel. Do this lots of times.

You'll probably hate the effect this has on the lightness channel. That is completely expected.

22. Now crank the Amount down to 50% and see if you like the result more. Experiment with the Amount setting. Keep toggling the preview button until you get something you think works. It is not uncommon for the Amount to be set to 20, 30 or 40%.

23. Next experiment with the Radius setting. I find with photos around 8 megapixels that I use radius settings between 30 and 50 pixels.

I personally have never used this high-radius, low-amount ("hiraloom") Unsharp mask without setting Threshold to zero. As you experiment, try to avoid anything that is too punchy. Once you return to the colour photo, any result will be much stronger.

24. Once you have experimented with the Unsharp Mask settings, click OK.

25. In the Channels palette, select the LAB channel, which will display all three channels and the photo will revert back to colour.



26. Use the Edit->Undo, Edit->Redo sequence to look at the changes you have made using Unsharp Mask. Decide if you like the result of the local contrast enhancement more or less than the original photo.

Below is the photo sliced into 4, showing left to right, original, colour boosted, colour and lightness boosted, local contrast enhanced.



27. To convert your photo back to RGB colour space, use Image->Mode->RGB Color.

Further reading:

Dan Margulis: Professional Photoshop and Photoshop LAB Color: The Canyon Conundrum and Other Adventures in the Most Powerful Colorspace, ISBN 0321356780. Absolutely essential reading for anyone interested in colour, and colour-space correction.

Local Contrast Enhancement: [Cambridge in Colour](#). This whole site is excellent. Check out Sean's gallery for some gob-smackingly brilliant photos of Cambridge at night.

Graham Dunnett, March 2007