

Now let’s get into action and try the Hue/Saturation skin-tone adjustment technique discussed in Part 1 of this article for real. Using model Renée Robyn as the subject (see Image 001), let’s see if we can give this card-carrying Goth a suntan and keep it real (real looking that is) – a sacrilege I know but for the sake of the exercise. First off we need to see what her skin-tone values read in HSB and so the eyedropper tool is swept across her exposed flesh:

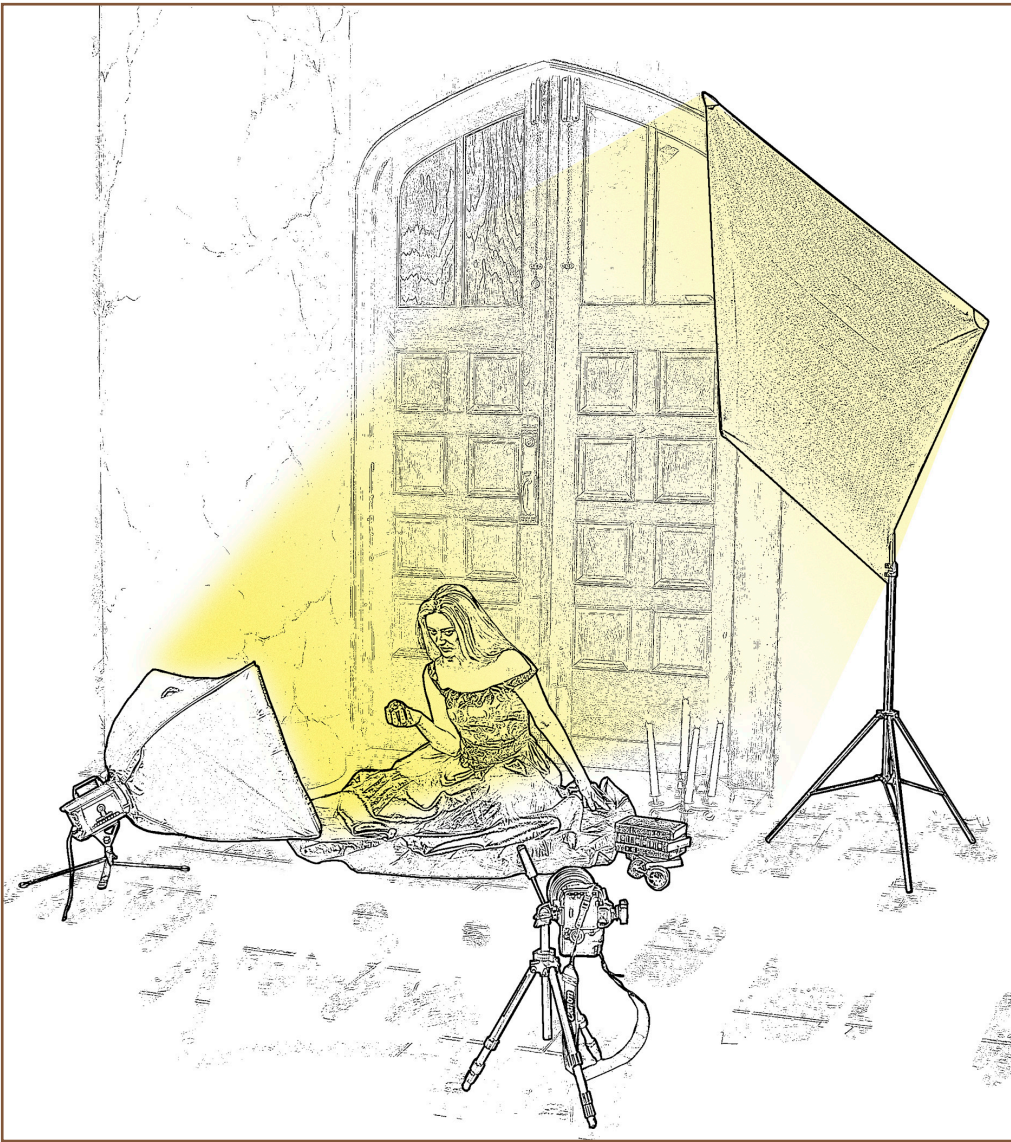
- H: 355° S: 8% B: 93% forehead.
- H: 4° S: 14% B: 82% Renée’s left shoulder.
- H: 358° S: 14% B: 87% under her right collarbone.
- H: 1° S: 16% B: 83% above cleavage.
- H: 351° S: 14% B: 78% below her left elbow, inner arm.

My first reading off the forehead reveals a really pale, cold, but bright skin-tone – 355° Hue is a very cold skin-tone. For accurate judgement of flesh-tone, this area is not that great a spot to read off. First of all readings from women’s faces can be deceiving due to make-up which more often than not, is not the same as their real skin-tone. Secondly one should not base readings from flesh areas that are covered in specularly (shine). In this image, Renée is on an acute angle to the main light source which is placed a bit behind and to the camera-left side of her (see Image 002); this back lighting position was chosen because it creates a beautiful specular sheen over her. Judging skin-tones from sheen-covered flesh is pure folly, Hue values will always read more neutral than the real flesh is, saturation values will read lower, and brightness values artificially high. This isn’t to say these areas with shine are wrong, it is just not a very good area to make an accurate assessment of true skin-tone. The optimum spots to read skin-tone from should be fully lit by the main light source and be devoid of specularly and make-up. I like to read from the chest, the neck, and the arms – when bare and available – and I like to read from multiple areas. I do also read off faces too, so as to see where they sit. In some cases I will make a separate localised correction for a face if it looks out of whack due to bad make-up or some other factor. A person’s skin-tone will spread over a range of numbers and so taking readings is about identifying a range rather than a single skin-tone.

I think Renée’s pale, cool, red skin-tone looks beautiful in the context of this image, however, let’s see what happens if we push her numbers up into the suntan zone. With a Hue/Saturation adjustment layer already to go (see callout box entitled, *How to Use H&S to Optimise Skin-tones by the Numbers*), and with an eye on the four readouts in the Info palette, I tap the Hue slider to my right which pushes her flesh Hue away from a cool red towards a golden (yellow) red. The four readouts place her Hue between 12° and 18°. I did also try a version that gave her a heavy tan just to see; the result was perfectly fine numerically speaking, but looked a little fake, she is supposed to be fair skinned after all – a perfect example of how relying strictly on the numbers can steer you



1



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in the wrong direction. Next on to the Saturation slider, I tapped until the Info palette readouts ranged between 21% and 27%. Finally the Lightness slider; it pushed the readouts for Lightness in the Info palette down just a few points. Interestingly enough, increasing Saturation usually requires lower Brightness. This makes sense if you think about it, suntans increase saturation and darkness plus shift flesh towards yellow-red.

When setting the sliders, I look to the HSB values in the Info palette and ignore the numbers next to the sliders in the Hue/Saturation dialogue box, the HSB readouts are all that matters. When altering the first two sliders the image usually looks bad; at this point you should rely on the numbers and reserve visual judgement until all three sliders are set. Ultimately it is about finding the right balance between the three controls. See Image 003



for a look at a skin-tone enhancement comparison of Renée – on our left is the no-tan/no-adjustment version, and on the right is the adjusted light-tan version. You should compare the Info palette readouts top right of each version as well as the Hue/Saturation settings bottom left.

In the end I think that the light tan given to Renée looks believable, whether it is better or not is subjective; if you ask Renée she would pick the original whereas the average mainstream Caucasian would probably pick the light tan. When agonising over which way to go when trying to create the perfect skin-tone I often hear the following words from my late mentor Dean Collins echoing through my head, "Beauty is in the eye of the cheque-book holder." By the way, if you find that the Hue/Saturation sliders don't quite give you exactly what you are after, try adding a Selective Color adjustment layer to the mix; this adjustment layer allows you to select a range of colour, just like a Hue/Saturation adjustment layer, and it gives you separate sliders for adjusting the Cyan, Magenta, Yellow, and Black component of the chosen colour range (reds for flesh).

Dave's Skin-tone Ranges in HSB

Caucasians '...with that healthy glow'

Hue: 16–26° Sat: 26–32% Brightness: 75–85%

Afro-Caribbean

Hue: 22–26° Sat: 26–28% Brightness: 60–70%

Asian

Hue: 22–33° Sat: 46–52% Brightness: 60–80%

Chinese

Hue: 32–37° Sat: 24–33% Brightness: 75–85%

Reset Densitometer's Sample Size in Photoshop:

How many pixels are read under the cursor is an important factor to consider when judging skin-tones by the numbers. For best results in Photoshop, you may have to alter the number of pixels read with the eyedropper tool. Do this by selecting the eyedropper tool from the tool bar, look to the 'Sample Size' field in the 'tool options bar' running across the top of your screen. Most people have this set to '3x3 Average' which averages together the colour values of 9 pixels at a time; this is pretty good but I prefer '5x5 Average' which reads 25 pixels at a go. This does a better job at averaging out stray, incorrectly coloured pixels caused by noise or by interpolation error during the de-mosaic process of raw file processing.



How to Use H&S to Optimise Skin-tones by the Numbers:

A Hue/Saturation adjustment layer can be created by going to the Layer menu in Photoshop, dragging over 'New Adjustment Layer' and then from the resulting pop-out menu selecting 'Hue/Saturation...'. In the resulting dialogue box, type in a name such as 'Skin-tone', now the actual Hue/Saturation slider controls will appear. The Hue/Saturation adjustment controls offer choices over which colour ranges we wish to affect; since human flesh is predominantly red, switch the default 'Master' setting to 'Reds'. Click in the field to the right of the 'Hue' slider so that it is selected, this allows us to alter the slider position by tapping the up/down arrow keys of the keyboard freeing up the mouse cursor. The mouse cursor can now be placed over key areas of the subject's skin-tone so that you can view the resulting Info palette numeric values taken from under the cursor to see how the colour changes compare to what you know to be appropriate flesh-tone ranges. Once the subject's skin-tone is dialed in to a more acceptable hue, move on to the 'Saturation' slider and then the 'Lightness' slider (Lightness is akin to Brightness and Luminance). You can jump from one field to the next by tapping the Tab key on your keyboard. Each tap of the Tab key jumps you to the next field, in descending order, if you want to ascend, hold down the Shift key as you tap the Tab key. I also like to set my sample points in place; do this by selecting the Colour Sampler tool nested with the Eyedropper tool in the toolbar of Photoshop, and then click on key points of the subject. Each click sets down a sample point and a corresponding readout appears in the Info palette. With these set, I click on the miniature arrowhead beside the eyedropper icon for each new readout and switch them all to HSB. With up to four of these set (four is the maximum), you can now watch a range of skin-tone values change as you manipulate the Hue/Saturation Adjustment layer's sliders towards what you think is the 'perfect' skin-tone for that person.

MONTIZAMBERT

