

When I have to explain in simple terms what the PPW (short for Picture Postcard Workflow) is, my inclination is to liken it to gastronomy. The average time required by this workflow is perhaps three minutes, which suggests it would be correct to call it “Fast Food.” But this term unfortunately does not quite do, because it does not suggest something as high-quality as the PPW produces.

Nor can we call it “Slow Food”, because “cooking” an image in this fashion requires too much time and is best saved for a select few.

Perhaps the best definition would be “Fast *Good* Food”, given that the motivation of Dan Margulis in creating this workflow was to define the best way, in a reasonably short time, to bring to the table

our feast, pardon, our image, cooked properly, using the best ingredients and with quantities carefully selected.

What is the secret? Surely it must lie in all these three elements: cooking method, ingredients, and quantities. The advantage of having access to a workflow already studied and optimised by a “chef d’image” like Margulis, is that every ingredient is put there not just because it can produce a fine image, but also because it yields a valid starting point for experiments that

may lead to very interesting results.

In the phase of the PPW where brightness and contrast are optimized, for example, one ingredient that deserves greater attention is often unjustly overlooked: Shadows/Highlights. This command can be accessed by menu through Image>Adjustments, but given how frequently it’s used in this phase of the PPW, you’ll find it also in the “Margulis PPW Actions” set (Figure 1), and also accessible through the PPW Configurator panel under Shadows & Highlights, both in Normal and Advanced modes (Figure 2 and 3). There is no difference between the two; they each run the action that applies S/H with certain parameters, plus an OK to save us time.

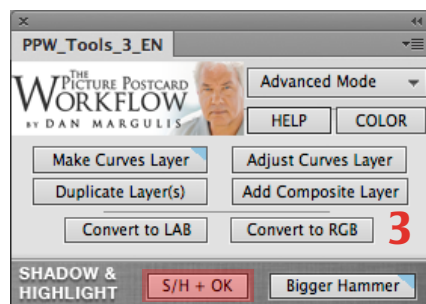
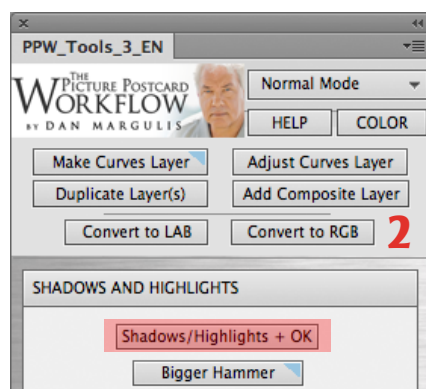
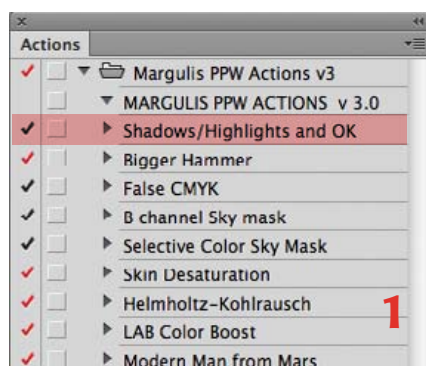
## A Pinch Never Hurts

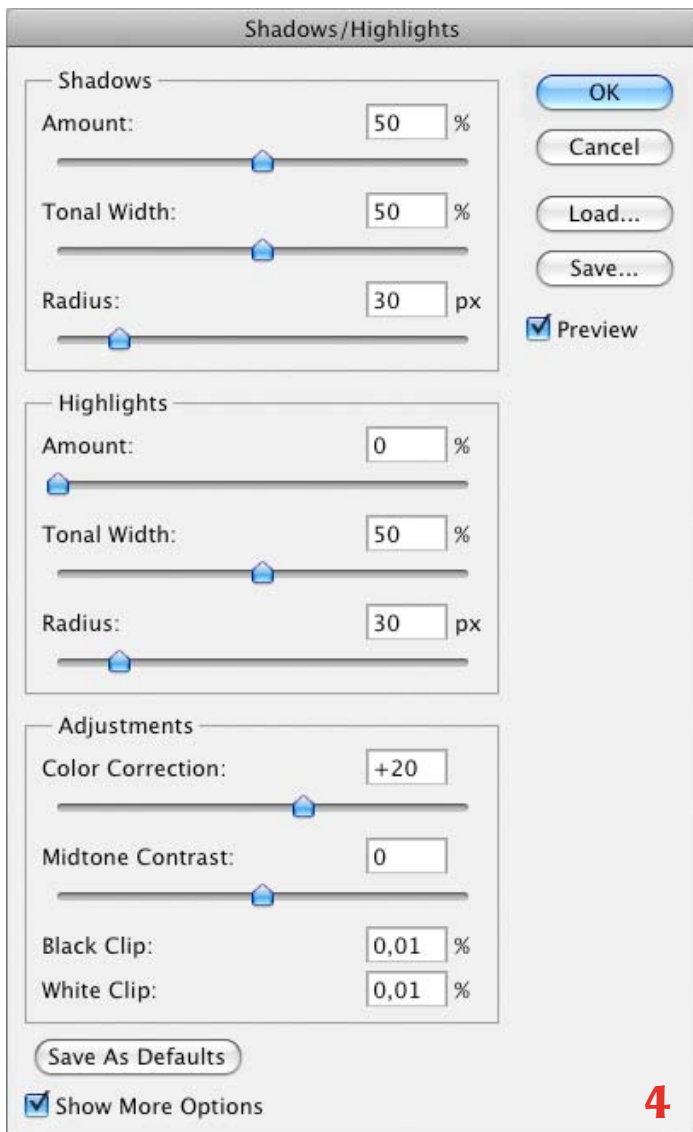
The first time you invoke Shadows/Highlights from the Image>Adjustments menu, the dialog appears in a basic mode that hides important options. To see all the parameters shown in Figure 4, Show More Options must be checked at the bottom of the window.

When Adobe introduced S/H in Photoshop CS, the idea was to resurrect severely underexposed originals. The default settings were aggressive for the shadows (Amount=50%) while the highlight setting was left at zero. An adjustment of this type, however, often produced an excessive and unnatural-looking lightening of the shadows, particularly in files that were not originally very dark.

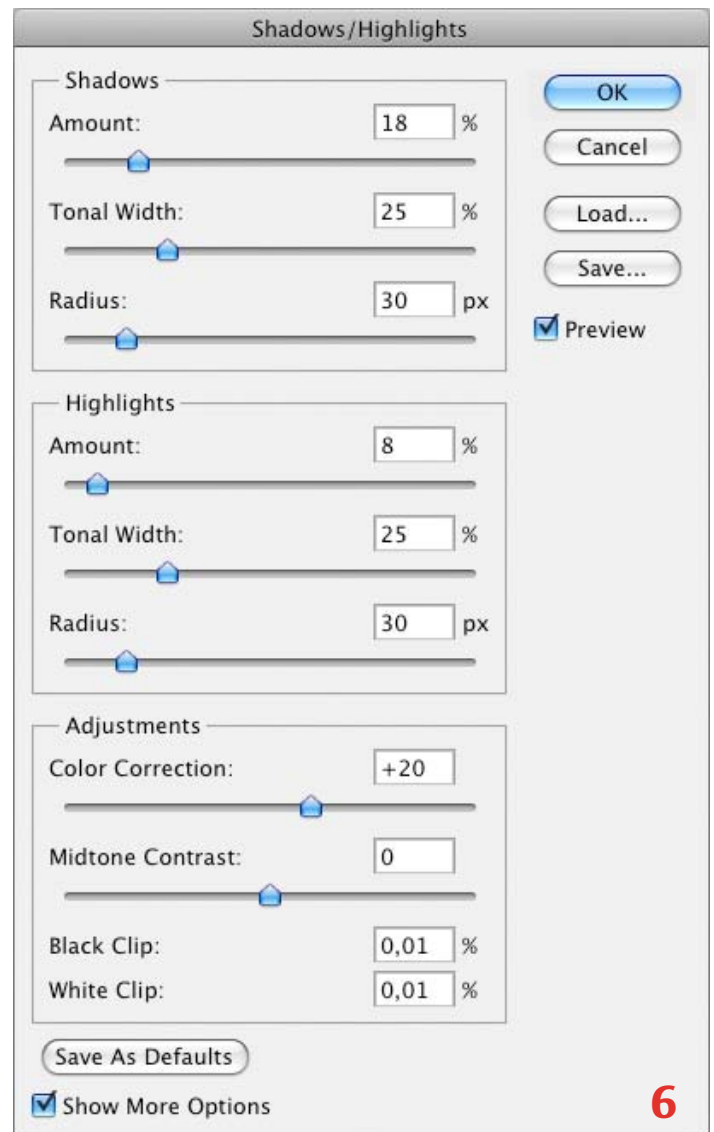
Thanks to user feedback, starting with Photoshop CS5 these defaults were exchanged for more moderate ones, but still only for the shadows (Figure 5). The reason for the shadows-only choice is perhaps that underexposed images are more common than overexposed ones. Or perhaps it is because our visual system is better able to distinguish details in lighter areas. Whatever the reason, the idea of the default is to redistribute the dynamic range in the darker and lighter zones of the images, making parts of them lighter or darker so that detail will become more visible.

In the PPW, however, S/H is not used to finalize corrections of this type, or at least not so much, because the general relationship between light and dark areas will have been addressed immediately beforehand

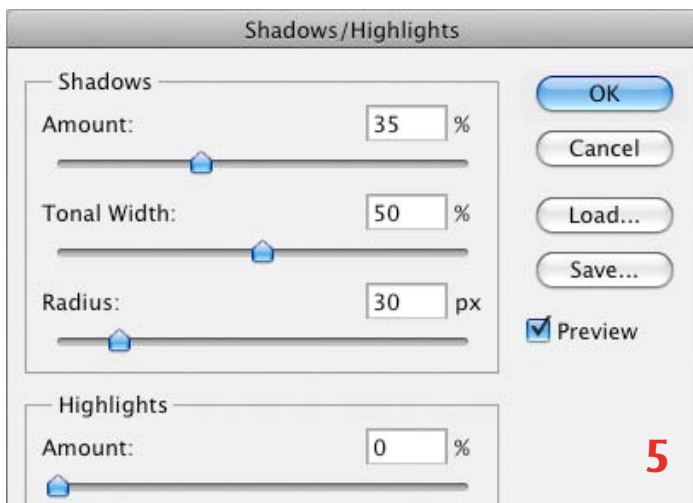




**Figure 4.** The default settings for Shadows/Highlights in versions of Photoshop between CS and CS4.



**Figure 6.** The recommended default settings for the Picture Postcard Workflow.



**Figure 5.** The new default settings for Shadows/Highlights introduced in Photoshop CS5.

with channel blending and curves in Luminosity mode. In the same step, white and black points

should have been adjusted to be approximately correct. The task of S/H is only to make a slight improvement to emphasize a valuable tonal range. Returning to my use of gastronomic terms, Shadows/Highlights in the PPW is not an indispensable ingredient without which the dish would not be edible. It is a small touch that adds a bit of flavor. In just a few seconds, it makes a certain improvement in detail in about two-thirds of all images.

We now face the usual question: how big a pinch? In this case, fortunately, we have a precise definition. In Figure 6 you'll find the settings that Margulis recommends for the PPW. They are, it is easy to see, much more conservative than either of the defaults previously shown, although they add a slight intervention in the highlights.

The reason for such a choice is quickly explained. Take the locomotive of Figure 7, for example. Much





**Figure 7.** The original. Figures 8 through 10 alter things with an application of Shadows/Highlights using pre-CS5 defaults (8) PPW recommendations (9) and CS5 defaults (10).

of the picture is in shade, and furthermore it is dominated by a dark subject. In such an image we surely want more detail in the shadows, but at the same time a good contrast with the deepest blacks. In short, this is the ideal photo for a healthy dose of Shadows/Highlights.

If we use the pre-CS5 default parameters the result is Figure 8. In my opinion, the effect is too strong. Using the CS5 defaults produce Figure 10. Things are a little better, but the photo remains too flat and too light.

In all cases we should intervene with a curve to refresh the contrast in a pleasing manner. Understanding that a move like this could also produce acceptable results, the PPW approach is different. Every ingredient is pre-measured and has a specific function, and it is not necessary to use force excepts in very unusual cases. The PPW version of S/H produces a rather mild effect, like that found in Figure 9. Thanks to these conservative settings, the shadows are only opened a little. We do see more detail, but the image has not been unduly thrown out of equilibrium.

If you think your image needs a more radical intervention to restore the correct rapport between lights

and shadows, now is the time to resort to other, more highly spiced, ingredients, er, techniques, such as the Bigger Hammer action. We have several other ingredients at our disposal, such as false RGB profiles, the False CMYK conversion, and multiplying layers in preparation for the final phase in LAB. These formidable techniques can redefine the tonal range drastically. I urge you to read about them in other articles contained in this download.

Meanwhile, I have reserved two versions for the skeptics. Figure 11 is obtained with a curve applied to Figure 8. Figure 12 is produced using some of the other PPW ingredients that I just mentioned applied to Figure 9. Which of the two, in your opinion, has the best detail in the locomotive and at the same time the best contrast, the best sense of three-dimensionality? I have no doubt that it is Figure 12. Note in particular the engine and the wheels, but also pay attention to the picture as a whole, especially the vegetation.

Granted, the correction would depend upon how the picture was being reproduced, and in some cases it would not be necessary to utilize all these ingredients. Nevertheless, this shows that a pinch of Shadows/Highlights with the PPW defaults is recommend-



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*Figure 11. A version produced by applying a curve to Figure 8. Figure 12: a version produced starting from Figure 9 and using other PPW techniques.*



able most of the time, even when it doesn't seem to produce sensational effects.

In Figures 13 through 16 you can see some common uses for this routine. The intervention with S/H

is almost always difficult to see (but not if you use the Photoshop defaults; try it for yourself if you don't believe me) and this tempts some people to omit the step. But in the still life we have found more detail in

**Figures 13-16.** The effects of applying Shadows/Highlights with the PPW defaults.





the box of tea, in the canyon the shadows are more open, in the model's hair there is more detail, and the white flower is better defined.

At the cost of a single click we have done something that has only advantages, as well as providing more space for maneuver later. So why not do it?



## The Moment of Truth

The basic functioning of Shadows/Highlights is not difficult to understand. Starting with the shadow half, the Amount slider regulates how strong the lightening will be, and Tonal Range the darkness zones to which the intervention will be limited. The higher the latter

setting is, the more it will affect areas other than pure shadows, such as the midtones.

The Radius, however, is different. Expressed as a number of pixels and not a percentage, it suggests the application of a filter. If you are trying to discover what that filter is, be calm, it is something similar to Gaussian blur. The blur is needed to create luminosity transitions between the pixels affected by the other two parameters. It is comparable to what happens with another PPW action, the Bigger Hammer, which uses a blur on an inverted Overlay layer.

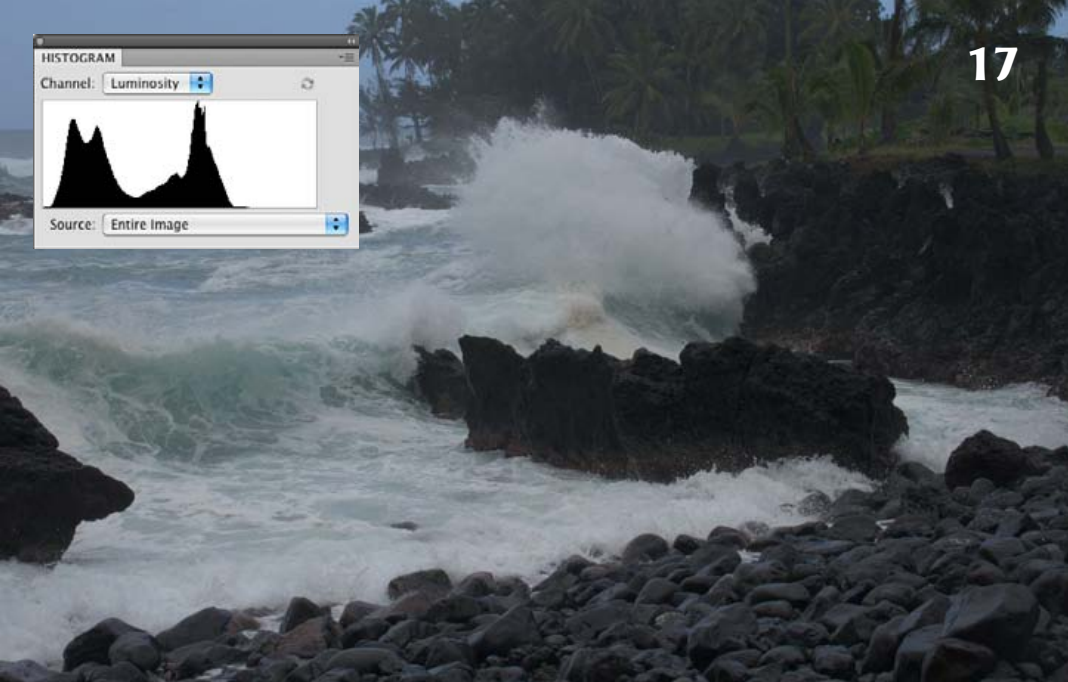
Without going into too much detail, what interests us most about the effect of this blur is a greater sense of detail and three-dimensionality. We should, in fact, say that the blur produces an increase in local contrast, which is the reason for our perception of more detail. But, not to make entire book out of this discussion, it is enough to know that local contrast is the contrast found not in the entire image but only between pixels that fall in a limited area depending on the blur radius itself.

When there is an increase in local contrast, the global contrast remains more or less the same. As the radius increases, however, we see more of a global effect.

We know that Shadows/Highlights is a command that also affects local contrast. What about its parameters for highlights? Simple, they work identically for those of the shadows.

Let us now study a couple of insidious options that are usually neglected. At the bottom of the S/H dialog are found boxes for Black Clip and White Clip. These two indicate the percentage of pixels that Photoshop assumes should be fully black or white before

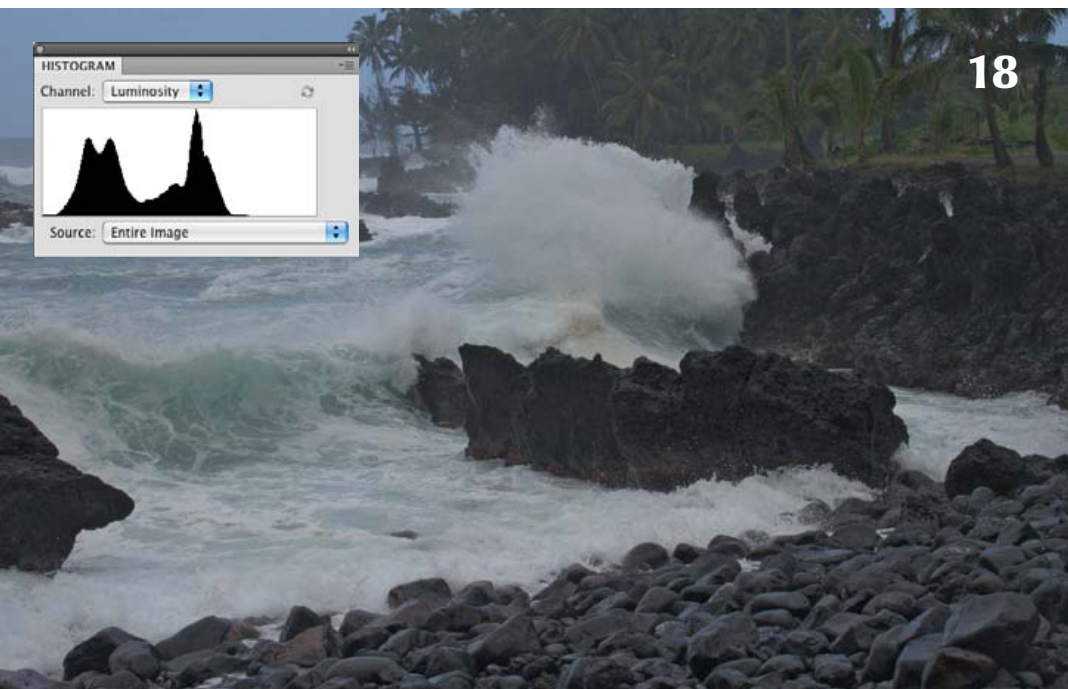




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starting its work. If they are set to zero, the command can operate between RGB values of 1 and 254. But if the image does not have any areas that come close to these light and dark end-points, the effect may be nil or nearly so, because the first useful value that could be modified might not fall within the limited area specified by Tonal Range.

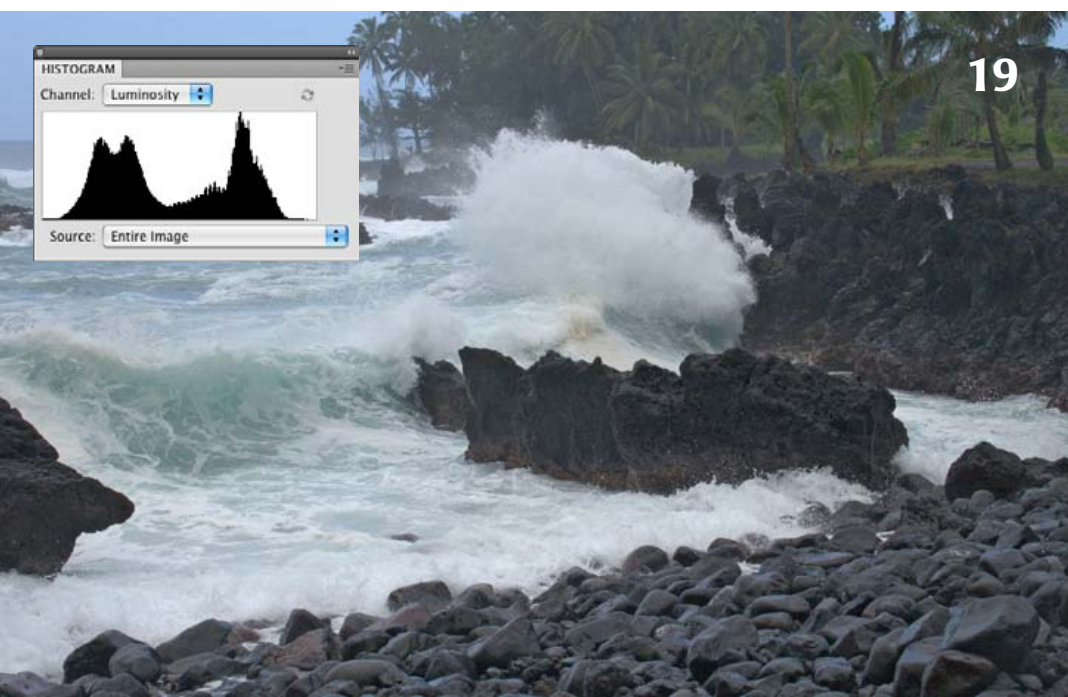
At the usually recommended values of 0.01% for both Black Clip and White Clip, Photoshop finds the first useful values, expands their range in a manner similar to that of the Auto Tone command, and starts the S/H routine from there.



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To understand what we're talking about, have a look at Figures 17, 18, and 19. The original, Figure 17, has a black point of around RGB=8, but a very dark white point of around RGB=180. Therefore, no useful information is found between 180 and 255.

In Figure 18 you can see the effect of Shadows/Highlights used with PPW parameters, except that the Black Clip and White Clip have been set to zero. The effect is seen slightly in the shadows and is totally missing in the highlights, because the intervention in the light areas is limited to pixels lighter than the lightest current point!



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In Figure 19 you can see the difference if instead the clip values are set to their default 0.01%. Photoshop uses the first useful value other than zero as zero, and the first useful value other than 255 as 255, and then applies the S/H routine to the new range of brightness. The effect is

**Figure 19.** When Shadows/Highlights with the PPW settings is applied to an image in which the white and/or dark point has not been set correctly, there is a notable gain in contrast.

almost antithetical to the name of the command itself because we have an increase in global contrast, not just highlights and shadows.

The three histograms confirm the observation. In that of Figure 18 the zone that changes is the one to the left side. It moves to the right, indicating that certain shadows have gotten lighter. But the right side of the histogram does not change, because the command is trying to intervene in a zone that is void of pixels, and therefore cannot darken anything.

In Figure 19, we see that the entire range has been expanded. It is not essential to investigate this phenomenon further, but if this should occur to one of your images after you have blended channels and applied curves in Luminosity mode, this is the signature dish of a chef who has used bad ingredients, to wit, who has not properly adjusted white and black point. In the kitchen this would mean starting over from scratch, but in Photoshop fortunately all that is needed is going back a few history states and apply a curves layer in preparation for re-applying Shadows/Highlights.

Now that you know the importance of the principal settings of Shadows/Highlights, there are three possibilities. The first is to create new default settings ac-

cording to your personal taste. Open the dialog, adjust the settings as you like and click Save As Defaults. From now on, every time you call up the command, you will get the same settings you just saved.

The second possibility is that of saving different settings for different needs. If you click the Save... button within the dialog, it prompts Photoshop to save a .shh file to your hard disk and you can recall it at any time.

The third is to embrace the parameters of PPW for the rest of your professional life. For this last option you don't need to save anything because you have a dedicated button (and an action as well) ready for you in the PPW TOOLS panel. If the white and black points are set correctly in your file, you need only to click the S/H + OK button and Shadows/Highlights will be applied with the recommended PPW settings automatically, allowing to you to continue with your recipe within a few seconds.

### **Extreme Evils, Extreme Remedies**

I admit it. Clouds, in certain situations, fascinate me. With their white color and soft consistency they give movement to the sky in a sunny panorama. In images like that of Figure 20, the feeling can change radically.







**Figure 21.** *The Shadows/Highlight command with PPW settings applied to Figure 20.*

It must be pointed out that this type of image is not particularly common. We should also say that perhaps this falls into the category of bad originals, for which the PPW was not created. It can, however, provide a chance to go out in style, to plant a few seeds and make some interesting experiments. So what we will see is not really part of the canon, and serves only to suggest remedies for extreme evils.

The photo was taken at the end of a tranquil city afternoon, at a moment in which nature was thinking about punishing the excessive spending that my wife and I had just done in the name of the God of Shopping. The sky, sunny with a few small clouds, was suddenly covered with clouds so dense and menacing that we both felt the same sensation: a natural, very powerful force that was hanging over our heads.

After a motorcycle escape to my home, I could not resist a photograph. The memory that I have in my mind is one of almost black clouds, yet with a light filtering through from behind, of a color slightly tending toward blue, so voluminous and swollen as to be able to crush buildings with their weight.

In short, we seemed to be arriving at “the perfect storm.” The lights that you see on the buildings are themselves unusual for late afternoon, but they were practically obligatory here, due to the general dark-

ness. Scenes like this aren’t ideal for the sensor of a camera, and it shows. To capture all the detail in the clouds, I was forced to underexpose, producing very dark buildings. Shortly thereafter, I took up my post in the kitchen, er, the computer, to try to recreate the incredible sensation.

After making a preliminary correction to the color, I immediately tried to emphasize the clouds with curves. Impossible. The price I had to pay to achieve the desired contrast was to lose everything in the buildings. I therefore resorted to the ingredient of this article, Shadows/Highlights, followed by a curve to add contrast, sort of like what I did with the locomotive in Figure 11. Better, but not enough, as you can see in Figure 21.

OK, time for stronger measures. In all cases where Shadows/Highlights is not enough, Chef Margulis recommends a spicier ingredient: the Bigger Hammer (formerly known as the Inverted Overlay, or as Shadows/Highlights on Steroids; you can read all about it in another PDF in this package). A little better, even though to bring out the full detail of the clouds it was necessary to blur the overlay layer with a Radius of at least 150 pixels, and still apply a contrast-enhancing curve. (Figure 22).

However, to my eye the clouds were still not threat-





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**Figure 22.** The effect of the Bigger Hammer action applied to the original of Figure 20.

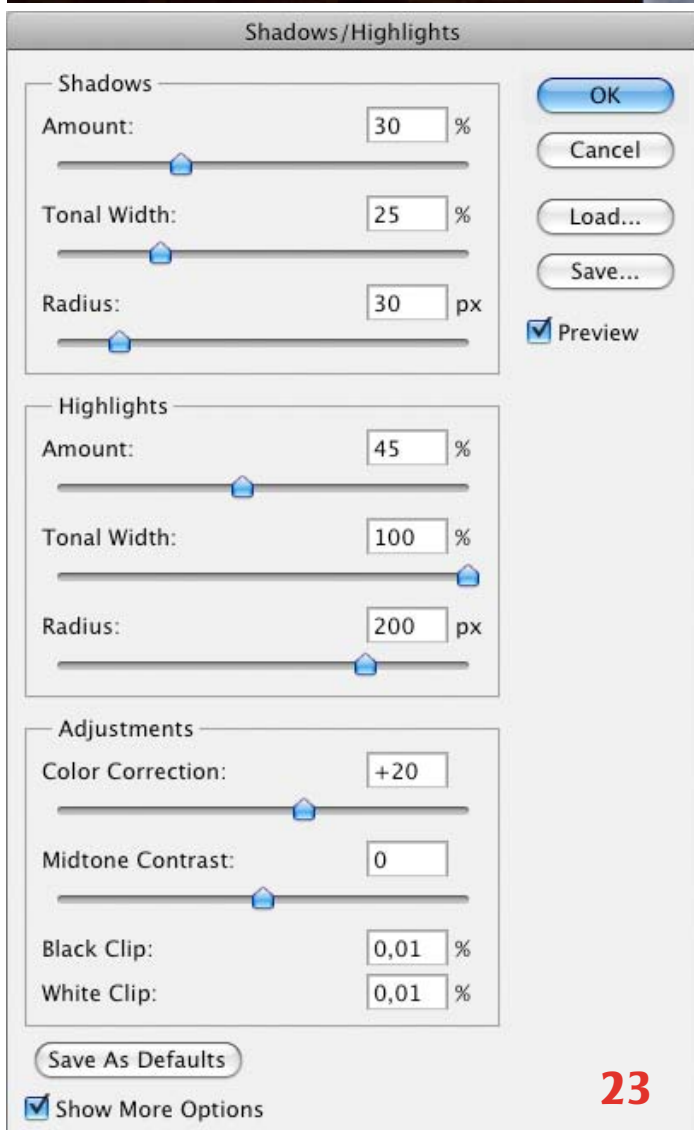
ening enough. At this point, there is a new player in the game: the decisive advantage of working with ingredients put at our disposal by a large cookbook such as the PPW. Each ingredient has been studied and pre-measured for best functionality in the workflow, but nothing prevents you from modifying one in creative ways that are relative to current needs.

So I went to the History palette, found Shadows/Highlights from the menu and not from the panel, and I applied to the background layer some settings that make the pre-CS5 defaults look like schoolgirl stuff. You can see them in Figure 23. I increased Tonal Range for highlights to the maximum, so that the command would affect everything as far as the three-quarter tone, and I raised the Radius to adapt the blur to the type of detail that I wanted to resolve.

In the shadows I only increased Amount to 30%. This allowed me to have something like Figure 24 with buildings that were well defined, if still dark, and still distinguished from the very dark clouds.

I have shown this picture to several people with diverse backgrounds, including some photographers and digital imaging experts, with the question, how

**Figure 23.** The unconventional Shadows/Highlights settings that produced Figure 24.

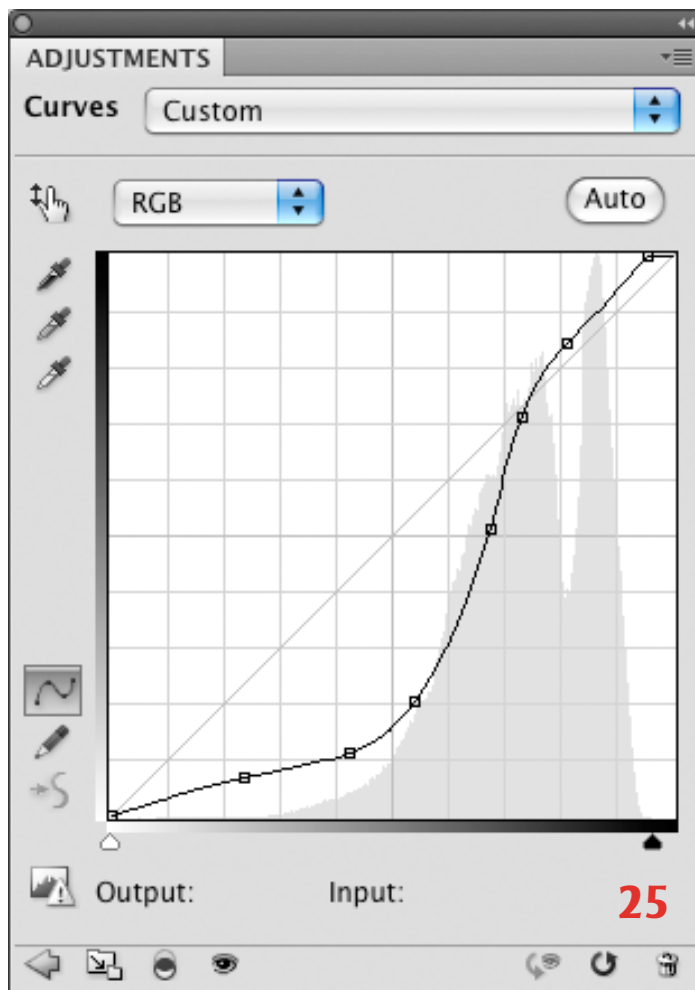


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Figure 24. The result of an application of Shadows/Highlights with the parameters shown in Figure 23.



would you describe this image? Ninety percent of them replied, too dark!

And you, how do you judge Figure 24? Too dark?

No, it is not too dark, we only have to redistribute the contrast properly (in technical terms, reallocate the contrast) and the curve of Figure 25 helped return the impressive visual feeling at the time of the capture. That feeling, to my personal point of view, is represented by Figure 26. The buildings have nice detail, and the clouds are leaden, foreboding. For some it might seem too heavy or contrasty, but I was there and can assure you that this was the sensation that I felt.

And again, if it seems to you that the result of any phase of the correction is excessive, this is the least of your worries: you can always reduce the opacity of the layer to which S/H was applied. Also, if you're afraid that you don't know when to stop or are a fan of a non-destructive workflow, the good news is that this command can be applied to a Smart Object (Layer>Smart Objects>Convert to Smart Object) and is therefore always modifiable by experimentation.

As I said before, this picture is somewhat of a rare and vicious animal that requires extra attention from

Figure 25. The curve that, when applied to Figure 24, produced Figure 26.





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the tamer and the brazen use of an instrument that is usually employed in a less invasive fashion. But it has offered us, in the process of reaching the desired result, a means of investigating one of the major concepts behind this workflow.

The key to the efficacy of the PPW, in my humble opinion, is not just in the three elements I set out at the beginning—cooking, ingredients, quantity—but also and especially in the reversal of some of the conventional wisdom.

A dish without salt is not tasteless. It only offers the possibility of adding more flavor. Just as an image is never too dark or too flat, but only offers the possibility for improvement. And among all the tools we have at our disposal, Shadows/Highlight is like a cat to caress, a cat that almost always has only advantages when used in the “canonical” fashion. But when the time comes, it becomes a potent ally that can attack evil with savage fury.

And don't be afraid to overdo the application. Because in PPW, unlike the kitchen, we are always able to repair an excessive use of any ingredient. And this, in color correction as in other fields, is no small advantage.

#### CREDITS

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And finally, a very special thanks to my family, who support, with infinite patience, my professional career.