

Well over half of all originals benefit from enhancement of detail in the light and/or darkest ranges. Some don't need it because there's no detail to enhance, or because enhancing it would distract from more important parts of the image.

When enhancement is desired, it could be simply to add definition, and the need for it could be nearly negligible, or it could be absolutely critical to the success of the image, or anything in between. Or it could be a sun-and-shade type of situation where the picture seems to be divided into light and dark halves, and would look more natural if they came closer together. If that is the case, we may or may not wish to intensify detail in the process.

The problem existed in the last century too, of course, but our countermeasures were basically limited to curves and occasional channel blends. Now that computers can support more sophisticated techniques, a lot of attention has been lavished on solutions. I recognize six distinct ones, as follows:

- The Photoshop Shadows/Highlights command.
- Artificially lightening the image and then darkening strongly through a heavily blurred layer mask (see the False Profile PDF documentation in the PPW panel).
- The Bigger Hammer action discussed in this current document.
- Using the highlight/shadow enhancement techniques found in certain raw modules.
- The Lesser Hammer and Velvet Hammer actions, released in version 4 of the PPW; a single PDF file documents both of them.

That so many sophisticated measures have been developed is a testimony to the seriousness of the problem. Naturally each has its strong and weak points. The Bigger Hammer, being the most powerful of the six, is also the most volatile. It has the most upside of any, and also the most downside if not used carefully

## The Original Understanding

The Bigger Hammer antedates the Picture Postcard Workflow. It was designed to do what the Shadows/Highlight command was too weak for: to smash spectacular detail into the areas that need it. The name derived from the apocryphal plumber who allegedly said

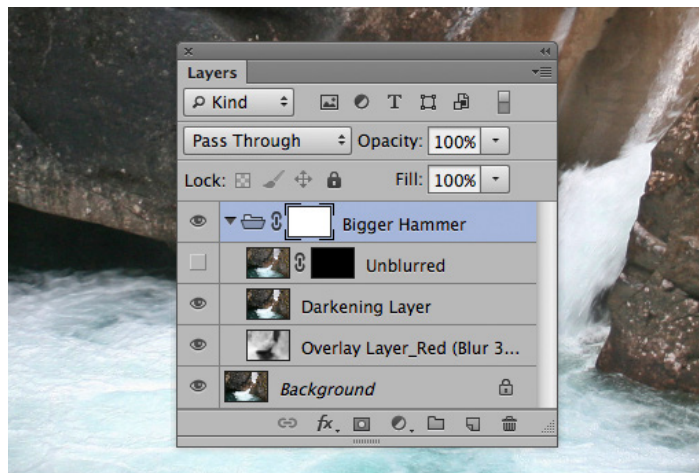
that the only two tools he really needed were a bigger hammer and a bigger wrench.

The typical use was conceived to be cases like the waterfall of Figure 1. The default result of playing the Bigger Hammer action is Figure 2. It may not be perfect but unless we can find some other way to get that kind of action in the whitewater our efforts will be counted as having failed. The same might be true if this were a picture of an interesting cloud formation, or smoke, or a snowy landscape.

In all of these cases the subject is roughly neutral, meaning that all three RGB channels look about alike. But there's an important extension. In strongly colored objects like flowers, one or more channels may be quite heavy but at least one is likely to be as light as the waterfall. Getting detail out of that weak channel may be critical. The Bigger Hammer, if handled carefully, can do that. Shadows/Highlights and raw modules can't.

In the waterfall image adding pop to the highlights is far more important than the shadows. That's how it normally is: photos needing *serious* shadow enhancement aren't common, but they do exist. Bigger Hammer can be altered to meet their demands.

Such an alteration, and many other useful variants, is made much easier by the Options window that has been part of the PPW panel since v.3 in early 2013. These options greatly increase the number of images to which Bigger Hammer is applicable.



**Figures 1 and 2.** A default application of the Bigger Hammer action. Above: the Layers palette immediately after playing the action.











## Anatomy of the Action

In the PPW as recommended, this step (or one of the other Hammers introduced at the time of the release of PPW panel v.4) comes right after the establishment of acceptable color and good luminosity, and before the file enters LAB for color enhancement.

If played as an action, the file must be a single layer. If you have the PPW panel, a multi-layered file will provoke a dialog asking whether to flatten or to retain the existing layer structure, add a merged layer, and work with that.

The action itself proceeds as follows.

- Three duplicate layers are added and grouped under the name Bigger Hammer.

- The second layer from bottom is renamed Overlay Layer and is set to Overlay mode rather than Normal.
- An inverted copy of the red channel is applied to this layer. The red is chosen in the action because if we have to take a sight-unseen guess, the red is more likely to be the best choice than either of the others. If you have the PPW panel you can override this choice either case-by-case or as a general preference, and you can preview results before making a final decision. If you are using the Actions palette only, it can still be done with greater difficulty.
- The third layer is renamed Darken Layer. Mode is set to Darker Color rather than Normal. Opacity is reduced to 50%.

**Figures 3–7.** The original, followed by a version that differs from the action defaults in that the overlay is an unblurred inverted copy of the original blue. The final versions show the impact of the blurring, at increasingly large Radii.









- The fourth (top) layer is named Unblurred. It is replaced by a copy of the merged file underneath.
- The Unblurred layer's visibility is turned off.
- Back on the Overlay Layer, the inverted red channel that has been put there takes a Gaussian blur at a robust Radius of 35 pixels. If you have the PPW panel, you can override that setting either as a one-time event or a permanent preference.

These default settings are what transform Figure 1 into Figure 2.

## Basic Options in the Action

The function of these layers is straightforward.

- The Overlay Layer does the heavy lifting. Turn it off to toggle back to the original. If you don't like the choice of the red channel you are welcome to replace it with another inverted channel, but remember it will have to be blurred or the picture will look flat. If you have the PPW panel all this is automatic.
- The Darkening Layer reacts to the reality that the shadow enhancement is usually (but not always) too strong for the highlight enhancement. So, by default,

we go halfway back to the original shadow. Experiment with different opacity settings on this layer. Do you think that the default makes the cliffs in Figure 2 too light? Easily fixed, if you do.

- The Unblurred layer, currently invisible, is a defensive measure. Occasionally this action produces undesirable haloing, especially in skies. We will have this in reserve as a countermeasure if needed.
- To reduce the impact of the action, reduce the opacity of the layer group.
- If you are following the PPW recommendations, your next stop may be LAB. It is possible to move the file unflattened into LAB, but there are both pluses and minuses to doing so. The plus is that generally there is a slight gain in highlight detail, which is what we are after. The minus, except when it's a plus, is that the RGB action has the side effect of boosting color, often in an agreeable way. If the file is moved unflattened into LAB, that color boost is lost.

If in a hurry you will be inclined to accept the defaults. If not, presumably you will try other channels, other blur Radii, and other opacities for the top layer.

**Figures 8–11 (opposite).** The originals, left, don't fit the classic model of images that need the Bigger Hammer. But the action is so quick that it is often worth a look, just in case something useful happens. **Figures 12–14 (below).** The original, the default Bigger Hammer, and a version using an inverted green channel as the overlay, with a wider blur.











**Figures 15–17.** The original and a default Bigger Hammer. Note the haloing in the sky. Above, the sky is replaced by the one from the Unblurred layer, using a Blend If routine in LAB.

Cloud formations, another important use for the Bigger Hammer, are more sensitive to the Radius setting than the water we just looked at was.

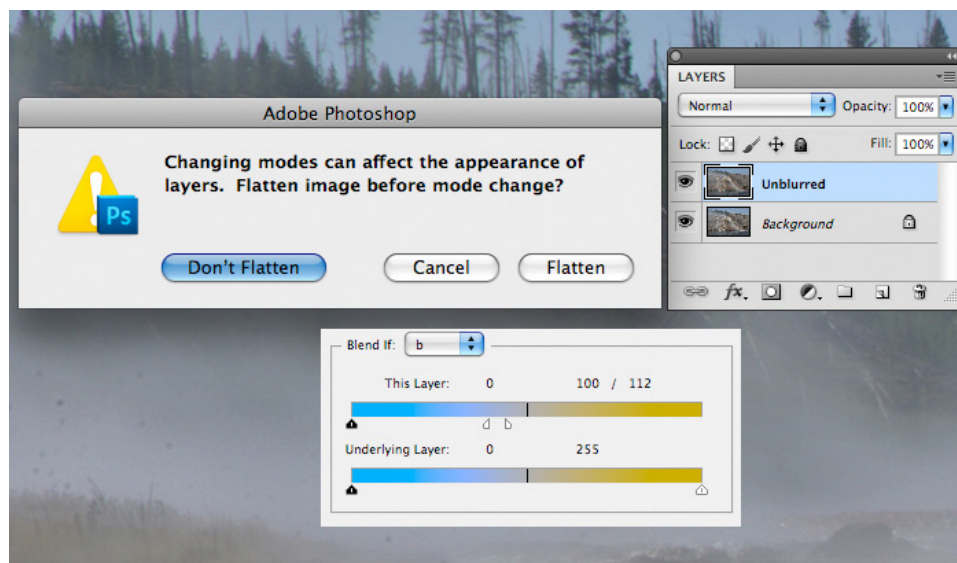
For Figure 3 I would use an inverted blue channel for the overlay rather than an inverted red. The clouds are neutral so all three channels are equal and it won't make a difference which we choose. Trees, however, are always darkest in the blue. Choosing that channel makes it less likely that the action will darken some greenery and lighten other parts.

Figure 4 has had no blur applied to the overlay. The remaining three show blurs at increasing Radii. Note the effect on the shape of the clouds. Which do you prefer?

## Nothing Like a Trial Run

The Bigger Hammer can produce some of the most spectacular improvements in the whole PPW. Unfortunately the classic pictures for which it is appropriate aren't all that common. How many pictures scream out for highlight detail as strongly as the two we've seen do? Maybe ten percent.

When you encounter a picture of whitewater, or of important clouds, or a white animal, or white clothing for a catalog, and so on, it's obvious that the action should be used. But what if it's not obvious? What if you suspect that a step in the direction of this Bigger Hammer might be helpful, but you aren't sure?



That, of course, is the appeal of having a quick action. You can apply it, and if it doesn't look like a profitable line of inquiry, deactivate the Overlay layer and flatten. It costs almost no time to do this, and without it you might overlook some really good move. Here are three quick examples.

Figure 8 is not very typical of the sort of image that the Bigger Hammer works well on. Nevertheless, it's worth a look. In Figure 9 the horse stands out somewhat more, because the background has gotten lighter. On the other hand, the background has also gotten more detailed, which you might like, or not if you felt that it distracted attention from more important things. Also, the drying grass in the foreground is now noticeably darker. Is this good, or bad? My personal decision would be to forget the Bigger Hammer and go back to Figure 8—but checking out the possibility only took a few seconds. The next step might be a similar investigation of the Lesser Hammer or Velvet Hammer actions.



The rainbow in Figure 10 seems like more of a candidate. In the original, it's quite light, so we expect Bigger Hammer to darken it, probably allowing it to absorb more color. And that is in fact what is happening. Since getting a better rainbow is a high priority, I have to think that something like Figure 11 is useful. Perhaps I will put some kind of layer mask on the Overlay Layer to prevent the reds from getting quite so dark. Or I might reduce opacity generally. I suspect I would discard the Darkening Layer, because I have no objection to more detail in the palm tree. But again, these are all judgment calls; you might take a different view.

Figure 12 is the best of these three reasonably good originals and so is least likely to be improved. Still, it has important detail in a relatively light object, so perhaps it's worth a try. The defaults produce Figure 13. Is it worth proceeding?

I'd say it depends on whether you want to pick up detail in the background or think it would distract from the lantern. If you decide to go ahead, the green channel should be used rather than the default red for the overlay, since the green is lightest in the lanterns.

I also used a wider blur. If I were doing this picture, I would change the Darkening Layer from Darker Color to Lighter Color, and also cut the opacity of the Overlay Layer in half. That way, I would pick up less weight in the lanterns, which are a little clunky in Figure 14.

## The Anti-Halo Layer

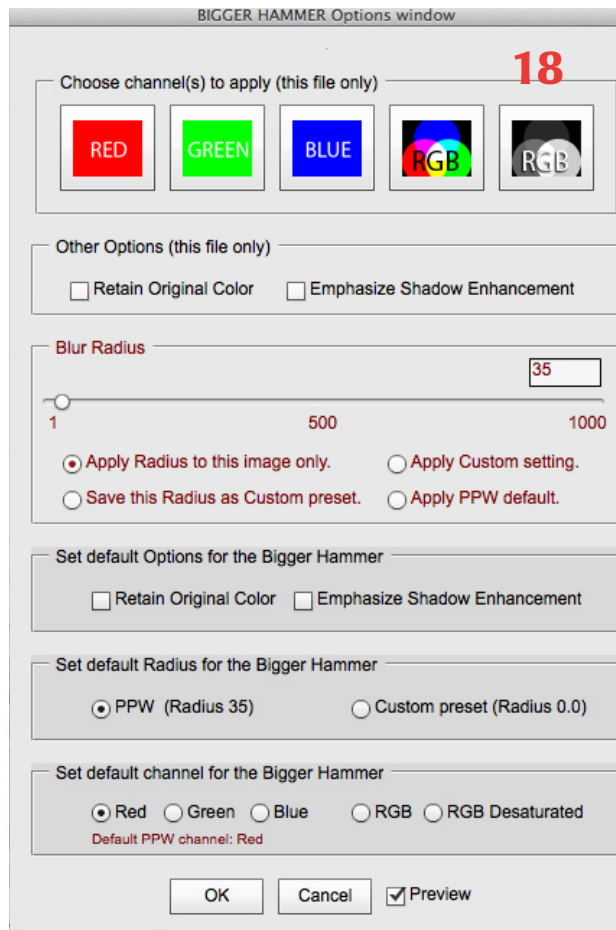
Bigger Hammer nails a collection of dark and, to a lesser extent, light halos into the picture. It's effective, provided the halos aren't too obvious. Fortunately, they're hard to detect when they cover anything with texture, which is most things.

The notorious halo-provoking case is where a dark background meets a lighter sky. When the action makes Figure 16 out of 15, it also introduces a light glow around the tallest trees. The countervailing dark halo within the hill isn't nearly as obnoxious. But many of us would like an easy way to get rid of these sky halos. The action now obliges.

\* \* \*

Recall that there is a fourth layer that we haven't used yet. It's a copy not of the original, but of the Bigger Ham-

**Figures 18 and 19.** Left, the options dialog permits establishing new action defaults. Also, it enables rapid previews, making experimentation easy. Right, an original to be put through its paces.





mer result if the Overlay layer had not been blurred. That layer has no halos at all, which is why it looks as flat as Figure 4 did, and why we make it invisible unless needed. We need to extract its halo-free sky and paste it into Figure 16. It's easier than you might think.

- Do a Merge Visible, leaving you Figure 16 on a single layer, topped by the invisible Unblurred layer.
- Convert to LAB, declining the invitation to flatten.
- Blend If in the B channel more or less as shown.
- Blue objects other than skies are uncommon. If any exist, layer mask them out so that the Unblurred layer doesn't replace them. The result is Figure 17.

## Options and Preferences

Version 3 of the PPW panel opened up many more possibilities for the use of the Bigger Hammer because we can now preview many possibilities quickly. The use became so important that the PPW panel installation process now also installs Bigger Hammer as a choice under Filter in Photoshop's menu bar.

The fun begins with an Option-click on the Bigger

*Figures 20, 21, and 22. Top, the Bigger Hammer default result, which uses an inverted, blurred copy of the red channel as an overlay. Bottom left, the blue channel is substituted. Bottom right, the red again, with Retain Original Color checked.*







23

Hammer button in the main panel, or by Option-selecting the Bigger Hammer under Filter. Either brings up the dialog of Figure 18. You may now introduce new default settings that will take effect the next time you click on the action. You have five choices of channel for the overlay, an infinite variety of blur radiuses, and two behavior modifiers. Or you can choose to apply these changes to the current image only and leave your customary settings untouched.

By clicking each of the five icons in the top row, you can get immediate feedback as to which appears to get the best result. Plus, you can alter the Radius setting as well and get immediate visual feedback as to whether it's working.

There are too many possibilities to illustrate here. I'm therefore going to leave out pictures showing blur differences, but I will discuss how the options window sets them.

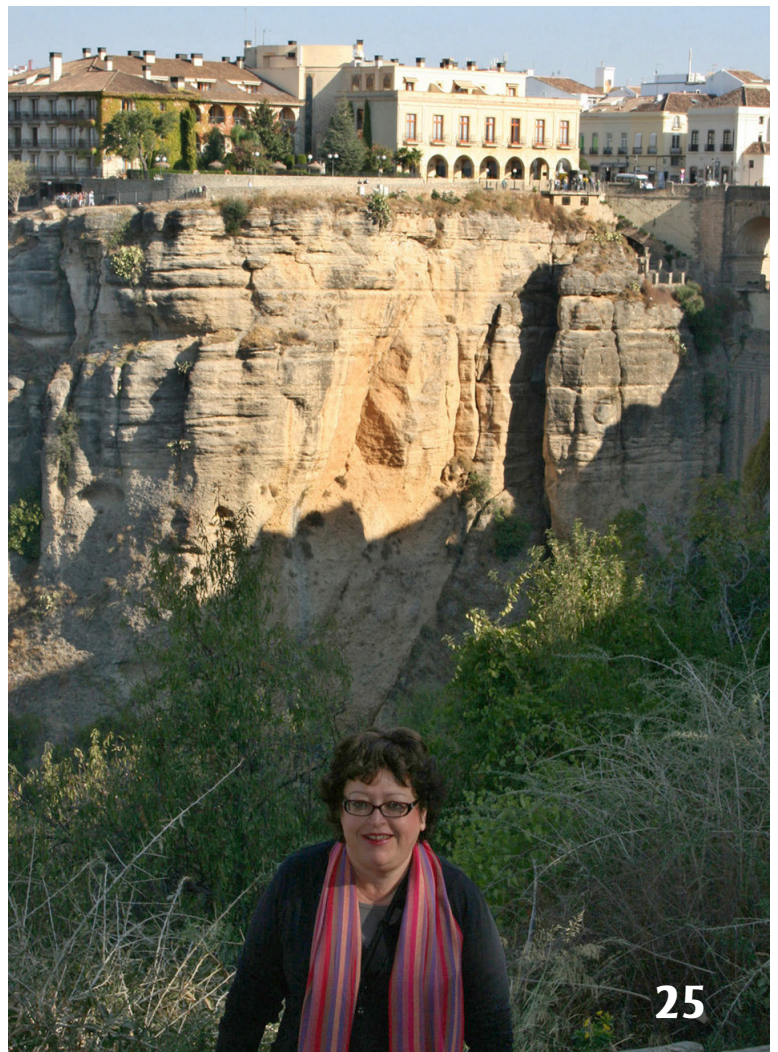
The blur setting's impact is image-specific, although generally the larger the file is the larger the blur should be. The PPW default is 35 pixels. To change it for one image only, move the slider or type in a new number.

Those who commonly work on some small and some large file may wish to save a "Custom" radius. The PPW

*Figures 23, 24, and 25. Top, what happens when RGB composite is chosen as the overlay method. Bottom left, RGB desaturated is substituted. Bottom right, still RGB desaturated, with Emphasize Shadow Enhancement checked.*



24



25



default is always available, but once you have set up a Custom setting (only one is allowed) you can access it with a single click whenever you like, or even save it as the action default.

The biggest impact comes when the overlay channel is changed. The options window lets you preview the results quickly by clicking one of the five boxes at top.

The PPW default overlay channel is the red. Experience has shown that if you don't know anything about the picture and are forced to apply a channel blindly, the red is most likely to be a good choice. Unfortunately, once we do see the picture, it sometimes is not. We illustrate some choices, using Figure 19 as a base. As with most of the other examples in this document, the image isn't really a classic case for the Bigger Hammer in the sense that the waterfall we started out with is. Nevertheless we are surely looking for more shadow detail and probably some highlight boosting as well. So this is one where we might want to explore some options.

Figure 20 is the default Bigger Hammer, so the overlay is an inverted, blurred copy of the red channel. In Figure 21, I have chosen the blue instead. The difference? The blue channel, when uninverted, is darker than the red is in the yellow rocks and in the greenery,

and much darker in the face and scarf. This means that all these areas would turn out *lighter*, because the overlay is inverted and thus has the opposite effect. So, compare Figures 20 and 21. Do you agree that the rocks, the face, the scarf, and the trees are all lighter in 20?

I could see some people preferring one and others not, but the strong orange in Figure 20's rocks is likely a turnoff to everyone. Version 3 of the PPW panel has an automated way of compensating.

Bigger Hammer does intensify some color, usually in a pleasing way. If you don't like what it's doing, check Retain Original Color in the options window of Figure 19. Do that, and you would get Figure 22 rather than 20. I think it's an improvement, to the point that I like the top half of Figure 22 better than 21, but in the bottom half I favor 21. Checking out all these options can become addictive.

Checking Retain Original Color doesn't literally do that. It provides a copy of the original, set to Color mode, but only at 50% opacity. That's because we've found that usually a hint of what the Bigger Hammer would do colorwise is usually desirable. But if you don't agree, by all means set the layer to 100%.

**Figures 19 (repeated for convenience) and 26. The original and the result of applying all phases of the Picture Postcard Workflow.**





## Two Flavors of RGB

That Retain Original Color option is useful if you have decided to try out the RGB composite for the overlay. Doing this, as I did in Figure 23, adds contrast to highlights and shadows more comprehensively than any other option, because it drives all extremes toward the midtone, channel by channel. Unfortunately, doing that also makes everything grayer.

This may not be so bad, because later PPW steps can restore that missing color and more, often with higher quality than originally. But you can certainly protect yourself by using Retain Original Color—or you can use the fifth overlay source.

When the overlay is a single channel, the same move is applied to every channel underneath. They either all get darker, or they all get lighter. The overall result is that certain colors will be darker and richer, others lighter and cleaner. Either is normally satisfactory. Using the RGB as the overlay moves channels in different directions, resulting in grayer colors, which may or may not be appreciated.

One solution would be to prevent this by desaturating the RGB—turning it into a grayscale image—before applying it as the overlay. Then, like the individual RGB channels, it could only move all channels in a single direction, thus helping colors. That's the fifth channel option, and it produced Figure 24 here.

The RGB Desaturated option is therefore the most conservative of the five, the one least likely to create something bad, but also the least likely to create something spectacularly good. It isn't quite as good for contrast as RGB composite, but it's a reasonable choice. I considered it as the Bigger Hammer default; if you're comfortable setting it as yours, the options window permits it.

## One Final Choice, and a Summary

The Bigger Hammer is just what its name suggests. It is a powerful tool when a huge adjustment is needed.

When we don't need something that strong, the Shadows/Highlights command is quicker and subtler.

In other words, if extra detail in the darkest and lightest areas would be nice, but not critical, use S/H. If the whole success of the picture depends on it, wheel out Bigger Hammer.

Now, an oddity. By the above definition, images requiring S/H do so far more often for shadow than for highlight detail. The Bigger Hammer is the opposite: it is more likely to be used when highlight detail is at a premium. That's the reason for the Darkening Layer: the presumption is that the impact in the shadows would be too great.

There are of course exceptions, and this picture would be one of them. In my opinion, while the light cliff in the background is quite important, the dark foreground is even more so.

In such cases, click Emphasize Shadow Enhancement in the options window. This changes the Darkening Layer into one that lightens instead. Also, it changes mode of the Overlay Layer to Soft Light, which is more appropriate for shadows. Activating that option here transforms Figure 24 into 25.

Which of these options you use, at what opacity, and with what blur, is up to you, as is how much time you spend investigating. After all, Figure 20 is the default; it's probably too much as it stands, but reducing the opacity of the Overlay Layer to, say, 50% would yield a distinct improvement over the original. It would take seconds, and wouldn't require opening the options window at all.

For sport, I have done a full PPW correction of this original. It's shown as Figure 26, next to a copy of the original, Figure 19, repeated for convenience. A really poor starting point has produced something acceptable. The biggest influences are the false profile/multiply techniques discussed in Chapter 12 of *Modern Photoshop Color Workflow*—and the Bigger Hammer.