

The Lesser Hammer Action

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The Lesser Hammer is the first new action introduced since the publication of *Modern Photoshop Color Workflow* in spring 2013. As the name suggests, it is a relative of the Bigger Hammer action that is already found in the PPW panel, but it is usable in many more images. This is a beta release of the action, so it must be loaded separately and run out of the Actions palette; it is not yet part of the panel.

After some beta testing of this action, I made some revisions, and also released a second new action for

testing. That one is called the Velvet Hammer. It's particularly good for fleshtones and for certain other images that cause problems for the other two hammers.

Accordingly, this is interim documentation: it's based on what was released during the first beta of Lesser Hammer. There have been some changes since then, and the Velvet Hammer was not mentioned. Our goal is that, if these actions prove successful, we will include them in the next release of the PPW panel,

Figures 1 and 2. The original, and a default application of the Lesser Hammer action.



and will fully document them at that time.

* * *

The Bigger Hammer was initially devised to deal with a limited, though important, image category: those that live and die by highlight detail. Figure 1 is an example. The waterfall dominates the scene. Unless a lot more detail gets engineered into it, the picture can be considered a failure.

In a much greater percentage of images more highlight detail is desirable, but not critical. For these, Photoshop's Shadows/Highlights command is satisfactory. For something like the waterfall, however, a more powerful tool is needed, a Bigger Hammer, if you will.

As time went on, I began to use Bigger Hammer for many more images, particularly after the PPW panel

introduced several previewable options for its application. This produced slight but noticeable improvements over use of the Shadows/Highlights command alone.

Bigger Hammer is, however, a brash and exuberant treatment, almost an impressionistic one. It changes colors freely, and darkens and lightens objects in what can seem an unnatural way. It also is prone to haloming.

In something with absolutely critical highlight detail none of these attributes cause a problem, in fact they usually improve the image. When applied to more typical files, though, they can become noticeable and objectionable. Consequently, Bigger Hammer can only be effectively applied to them at a fairly low opacity. The goal of Lesser Hammer is to remove

Figures 3 and 4. Left, starting with the original, the default Bigger Hammer action is played. Right, to this same file, the Lesser Hammer is added, followed by a light application of Shadows/Highlights.



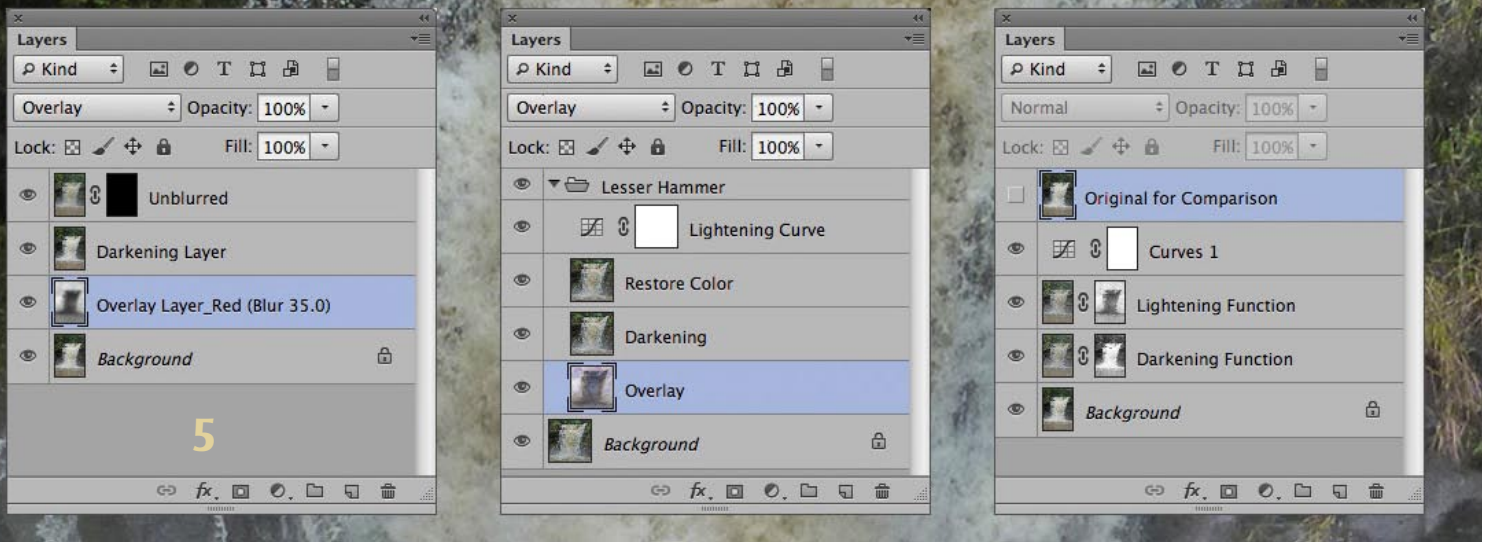


Figure 5. The layer structure of the Bigger Hammer action, left, the Lesser Hammer action, center, and the Velvet Hammer action, right.

these obstacles, enabling its use on more files. It is *not* to replace the Bigger Hammer in cases like the waterfall, where highlight detail is absolutely essential. However, as we will see, using it in conjunction with the Bigger Hammer in such cases may yield something really good.

The Two Hammers Described

The Bigger and Lesser Hammers are alike in the following ways:

- The overall layer structure, seen in Figure 5, is similar. Note: there has been a change since the first beta; a curves layer has been added because Lesser

Figures 6–11. This page, downsized versions of an image needing strong highlight detail. Top left, opened with Camera Raw defaults. Top right, the Lesser Hammer applied to Figure 6. Bottom left, the Bigger Hammer applied to Figure 6. Bottom right, a version produced in Camera Raw with settings of Highlights –100 and Shadows +50. Opposite page, at normal size, the top four versions are the same as on this page. Bottom left, a version produced only with the Shadows/Highlight command applied at strong settings to Figure 6. Bottom right, a new version produced by applying the Lesser Hammer to Figure 9, which intensifies highlights in Camera Raw.





Hammer usually makes the picture slightly flatter and darker-looking. That's easily corrected down the line, but sometimes it's hard to see right away whether the action was helpful. This curve layer should answer that question. Personally, once I'm satisfied that the action worked, I throw that curve away on the theory that I can do a better job later.

- The two actions magnify detail in both highlights and shadows, and by default emphasize shadows less.
- Both actions intensify detail not just in relatively neutral areas but in colored ones as well.
- The Darkening layers are identical. They are copies of the pre-action file, set to Darker Color mode, 50% opacity. The user can adjust opacity to taste.
- Each works happily with the other, or the Shadows/Highlights commands, or the shadow-highlight enhancement routines of raw modules.

The two actions are *unlike* in the following respects:

- The Lesser Hammer is more complex and takes longer to run.
- The Lesser Hammer produces better fine detail. It is less likely to produce large areas of strong lightening and darkening.
- Like several other steps in the PPW, but unlike the Bigger Hammer, applying the Lesser Hammer can make the image look worse—flatter and less colorful. As usual, this is to avoid pre-empting later beneficial steps.
- The Bigger Hammer intensifies color; the Lesser Hammer subdues it. The Restore Color layer, which is not found in Bigger Hammer, is a copy of the pre-action original, set to Color mode, 70% opacity. The lower the user sets this opacity, the more the color will be toned down.
- The Bigger Hammer has an Unblurred layer that is sometimes used to correct haloing. As the Lesser Hammer is much less prone to this problem, I think that this layer can be omitted.
- The Lesser Hammer cannot be run in 16-bit mode; the Bigger Hammer can.

Recommendations for Use

This documentation shows the Lesser Hammer in action on seven different originals. The first two are classic highlight-critical cases of the kind the Bigger Hammer was designed for, and in fact the Bigger Hammer outperforms the Lesser Hammer in them. The other five involve colors, both bright and subtle, which is where the Lesser Hammer shines. Here is

a summary of my current recommendations. They have been modified by comments from beta testers during January 2014.

- The Lesser Hammer does a fine job when highlights are extremely important, but not quite as well as the Bigger Hammer, for which reason it cannot be seen as a substitute.
- It can sometimes be, however, a substitute for the false profile/multiplication method discussed in Chapter 13 of *Modern Photoshop Color Workflow*. That is, any picture that divides into a clear light and dark areas becomes a candidate for Lesser Hammer. This can mean a sun-and-shade situation, but that's by no means the limit.
- The Lesser Hammer adds detail to large, strongly colored objects. This includes pastel colors. It is therefore useful in images of flowers and the like. The beta testers confirm that this is an extremely powerful action for flower images.
- The action also has utility in fleshtones when the individual is quite light-skinned, or when a lot of light is reflecting off the skin. During beta testing, other good uses in fleshtone images have been found, but they require some additional steps. There's a discussion later when we show a series of three fleshtone images where the Lesser Hammer faces off against the new Velvet Hammer action.
- Since Lesser Hammer reduces overall color, and often creates the sensation of an overall flatter image, its use implies that you intend to use the Color Boost action or something similar down the line, almost certainly using LAB. This distinguishes it from Bigger Hammer, which could function perfectly well in an RGB workflow.
- Using the Shadows/Highlights command after Lesser Hammer can be quite effective, because it resets highlight and shadow points that the Lesser Hammer may have rendered incorrect. The Bigger Hammer action rarely does that, so one could run S/H before or after. But with Lesser Hammer, S/H should come afterward.

Let's now see how these actions work in real life.

The Waterfall

Figure 1 is the original. Figures 2 and 3 compare default results from the Lesser (2) and Bigger (3) Hammers.

As noted earlier, we expect the Bigger Hammer to win, as this is the type of incredibly-important-highlights image in which it specializes. The Lesser Hammer, however, is not half bad. It has, for example,



Figures 12–15. The Lesser Hammer can extract great detail from strongly colored objects. It also reduces color gracefully to make way for subsequent maneuvers. Top left, the original. Top right, the default Lesser Hammer result. It adds detail and cuts back color somewhat, but still some of the reds are so brilliant that detail is being lost. Bottom left, the Color and Darkening layers are removed from the action, resulting in excellent detail, but tepid color. Bottom right, the MMM + CB action is played on the result to restore some of the original color.

better fine detail in the water.

Bigger Hammer's success is due to what can be described as creative reality distortion. It has introduced some new color in the center of the waterfall. The dark water at the top right is made even darker. On the two sides of the waterfall, where spray is seen against a dark background, that background is also artificially darkened, making the spray seem more pronounced.

The more conservative Lesser Hammer does none of these things, more's the pity—at least in this image.

Also, it doesn't keep the lightest water as light as the Bigger Hammer does. You have to ask yourself, though, how well the Bigger Hammer's little lies will play out in a more typical photo.

Although it seems like the Lesser Hammer is not the right choice for this image, there's an exception. Suppose that even Figure 3, the Bigger Hammer, isn't enough for us, and we want more water detail yet.

Applying the Bigger Hammer a second time to the same image is unlikely to work. These actions rely on

trickery. We hope that their artifacts are too subtle for the viewer to perceive. Doubling up on the action emphasizes its eccentricities and makes the scam easier to detect.

The Bigger and Lesser Hammers, however, don't use the same bag of tricks. It is therefore possible to combine the two without the telltale signs of artificiality. Figure 4 does so. It's Bigger Hammer first, then Lesser Hammer, then Shadows/Highlights to reestablish the white point that Lesser Hammer lost.

Before moving on to objects that contain color, which are Lesser Hammer specialties, we'll continue with one more neutral example.

Rock and Reflection

The presence of a slight amount of original color in the waterfall proved an advantage to the Bigger Hammer. The presence of a large amount would have been advantageous to the Lesser Hammer. Our next exercise features another highlight-critical object, some rocks, just as large as the waterfall, but this time with

practically no color at all.

A couple of other alternatives present themselves in such situations. The Shadows/Highlights command and the similar enhancers found in various raw modules don't exploit channel structure the way that the two Hammer actions do, and are therefore less able to compete in colored objects. But in a perfectly neutral object like the rock formation we're about to look at, all channels are alike, taking away much of the actions' advantage.

We need to zoom in to look at what happens to highlight detail in these varied scenarios, but first let's downsize to get an overview. Figure 6 is a default open in Camera Raw, which is then used to produce two alternates, Figure 7 (Lesser Hammer) and Figure 8 (Bigger Hammer). Figure 9 is done in Camera Raw only, using default settings plus slider values of -100 Highlights and +50 Shadows (note: these sliders don't exist in pre-CS6 versions of Camera Raw).

The smaller size argues for the Bigger Hammer. As usual, it has thrown in some extra darkening of

Figures 16–20. This page, downsized versions of an image showing too much of a break between light and dark zones. Top left, opened with Camera Raw defaults. Top right, the Lesser Hammer applied to it. Bottom left, the Bigger Hammer applied instead. Bottom right, a version produced in Camera Raw with settings of Highlights -100 and Shadows +50. Opposite page, at normal size, the original repeated, top, and the Bigger Hammer version after it has been run through the MMM + CB action to set final highlight and shadow and to enhance color.



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the background in order to contrast it with the light rock. And it has done the same kind of thing with the reflection.

When we zero in on the rock detail of these same three in the correctly sized versions, it's hard to get excited about the differences. I still have a slight preference for Figure 8, the Bigger Hammer, because of its seemingly rounder, contrastier look. But all three do the job of bringing out the rock detail that's so lacking in Figure 6, the original.

Note that all three are maxed out—that is, they're as far as we can go with a single application of each technique. The Camera Raw version, Figure 9, seems weaker than the others, but that's because it just can't be pushed as hard, since -100 is the minimum setting permitted in the Highlights slider.

Speaking of how hard to push, Figure 10 is the worst of the four we've looked at. I produced it using the Shadows/Highlights command alone, applied at very high settings to the original.

Its deficiencies are not a big surprise. I developed the Bigger Hammer because Shadows/Highlights isn't convincing at strong settings. I developed the Lesser Hammer to avoid some of the Bigger Hammer's potential drawbacks. From this, one might conclude that we should give Shadows/Highlights the decent burial it deserves.

Pragmatism dictates otherwise. Chapter 7 of *Modern Photoshop Color Workflow* advocates unrestricted use of S/H. The recommended dose is around a sixth of that shown in Figure 10. I hope you can see a qualitative difference between Figure 10 and Figures 7–9. But suppose that we take away five-sixths of the difference between each of them and Figure 10, the original. Do you really imagine you could see a difference between any of the four corrections? Applying Shadows/Highlights takes a fraction of a second; Lesser Hammer many times longer. Unless you're trying to make a serious change to the picture, what's the point?

What, though, if you are trying for the opposite effect: not just less highlight enhancement, but more than has been seen so far? In that case, you can go with the lesson of Figure 4 and combine two or more of these techniques. (Remember, it is bad policy to apply any one of them twice, for fear of accentuating artifacts.) To make Figure 11, then, I started with the Camera Raw-enhanced version, Figure 9, and applied Lesser Hammer.

If you're dead set and determined to have as much definition as possible in the rocks, Figure 11 fills the

bill. If it's too much, there are many ways to cut back without going as far as the featureless Figure 6.

The Flower and the Gamut

The presence of a slight amount of original color in the waterfall proved an advantage to the Bigger Hammer. The presence of a large amount would have been advantageous to the Lesser Hammer. Our next exercise features another highlight-critical object, just as large as the waterfall, but this time with practically no color at all.

Two other alternatives present themselves in such situations. The Shadows/Highlights command and the similar enhancers found in various raw modules don't exploit channel structure the way that Lesser Hammer does. They are therefore so useless against a challenge like the bright red flower of Figure 12 that I don't even bother to show them. I don't show Bigger Hammer as an option, either, because without a good knowledge of how to substitute overlay layers in the PPW options panel, it makes a mess of this image.

Historically, then, this type of original requires expert handling. The usual solution is channel blending to force detail into the red channel and the dark parts of the green. The H-K action in the PPW set can also do this; if this were a live job, I'd start with that and then move into Lesser Hammer. For present purposes, though, I'll show how to find the detail in this flower using only Lesser Hammer and a supplementary move to boost color.

Figure 13 is the Lesser Hammer default. It's a step in the right direction, because detail is starting to appear. Also, although it may not be noticeable, it's less colorful than the original. Remember, by its nature Lesser Hammer suppresses color. Its color layer restores 80% of the original's color by default. Here, however, we're so overwhelmed by redness that it's hard to see the difference.

In situations like this, the more brilliance gets forced into the flower, the less detail will be apparent. You may feel that Figure 13 is a reasonable compromise and leave it at that. For now, though, let's assume that we want even more definition in the petals.

One way to get that is to reduce the opacity of the Color layer, making the reds less brilliant. Not being shy, I reduced it to 0%, and I did the same with the Darkening layer, which was retaining some of the redness.

Figure 14, the result, is rich in detail. The redness is distinctly and unacceptably muted, but that's not a problem. If you're a PPW aficionado, the next step can



Figures 21–24. Top left, the original. Top right, the Lesser Hammer. Bottom left, Camera Raw. Bottom right: the Bigger Hammer.



be the MMM + CB action to restore color. That's how I produced Figure 15. If you think it's too much, you can always blend it with Figure 13.

Even if you don't use MMM + CB, the lack of color in Figure 14 is not a problem. Just move it and Figure 13 into LAB (this won't work nearly as well if you do it in RGB), and layer them with Figure 13 on top set to Color mode. It won't have the interesting color variation of Figure 15, but it will have plenty of color and will be infinitely better than the red blob that is the original.

Six Colorful Pairs of Shoes

When a scene is divided into a light and a dark part, a camera sees more distinction between the two halves than a human would. The PPW already offers three actions that try to compensate, two using false profiles and the third being the Bigger Hammer. The Lesser Hammer is now the fourth, and my testing so far suggests that it is usually the method of choice.

The obvious example is a photo taken in strong sun and shade. We'll get to one of those shortly, but will start with two that illustrate that the concept doesn't end there. Both are excellent originals that arrive in raw format. Looking at a false profile plus multiplication is beyond the scope of this documentation. Instead, we will compare the original to the three nominal best highlight-shadow enhancers: the Lesser and Bigger Hammers, and the -100 Highlights, +50 Shadows adjustment in Camera Raw.

The default open is Figure 16. The white leather contrasts sharply with the various darker colors, so the sun-and-shade analogy is valid. Figure 17 is the default Lesser Hammer, Figure 18 is the version done in Camera Raw only, and Figure 19 is the default Bigger Hammer.

This is one of the cases where Lesser Hammer may appear to make the original worse. The colors are subdued, and overall the impression is flat, because the action has darkened the highlight and lightened the shadow. You can't let that upset you, because the use of Lesser Hammer should never be the last step.

Even with this handicap, Figure 17 seems to me decidedly better than Figure 18, the Camera Raw entrant. The overall range isn't as good but every single area of importance, except the green shoe trees inside the brown shoes, has higher contrast. The Camera Raw method doesn't recognize any part of these shoes as a shadow, so the whole image gets darker. I see all the darker leather, particularly the teal-colored top of the boot in the back row, as being better detailed in

Figure 17. All the laces are also better in Figure 17 than either competitor.

The Bigger Hammer version, Figure 19, has good and bad points. The overall presentation of the front row is appealing. As against that, the white leather is not improved, and the boots in the back row are definitely worse, the orange leather being particularly bad. You may recall that a similar color appeared in the background hills of Figure 8, and the Bigger Hammer darkened it, too. But there it looked good, here it definitely seems artificial.

That defect isn't enough to disqualify the Bigger Hammer altogether. If Lesser Hammer did not exist, I would apply Bigger Hammer, but change the opacity of its Overlay layer to 25% or so. That wouldn't be enough to severely damage the orange leather, but it would make a slight improvement everywhere else.

This was a typical situation for me: I would want to apply the Bigger Hammer but could only do so at a low opacity, because the Bigger Hammer often does some very good things and occasionally some very bad ones. Hence, the more conservative Lesser Hammer, which is less likely to do either. I have no problem accepting Figure 17 as a starting point just as it is, without any reduction in opacity.

To prove the point, let's go to full size comparing the original to Figure 20, which is the Lesser Hammer version with range and color adjusted by the MMM + CB action.

Still Life and Skintones

We now come down to the home stretch, showing three more images in which the Lesser Hammer darkens the quartertone to make the image attractively fuller. The still life of Figure 21 is an excellent original capture, but Figure 22, the default Lesser Hammer, makes it better in every way. This time, there is no issue of making the highlight too dark.

This time, it's the Camera Raw version, Figure 23, that's worse than the original. It has taken it into its head that the peppers are a full shadow and has lightened them precipitously, while not recognizing that the pine cones are light and in need of darkening.

The Bigger Hammer version, Figure 24, as usual has both strong and weak points. I could see using it at a lower opacity—but my preference would be to continue the correction starting with Figure 22.

The ability to make natural-seeming moves that de-emphasize the differences between light and dark areas makes the Lesser Hammer an attractive tool for many fleshtone images, particularly with light-

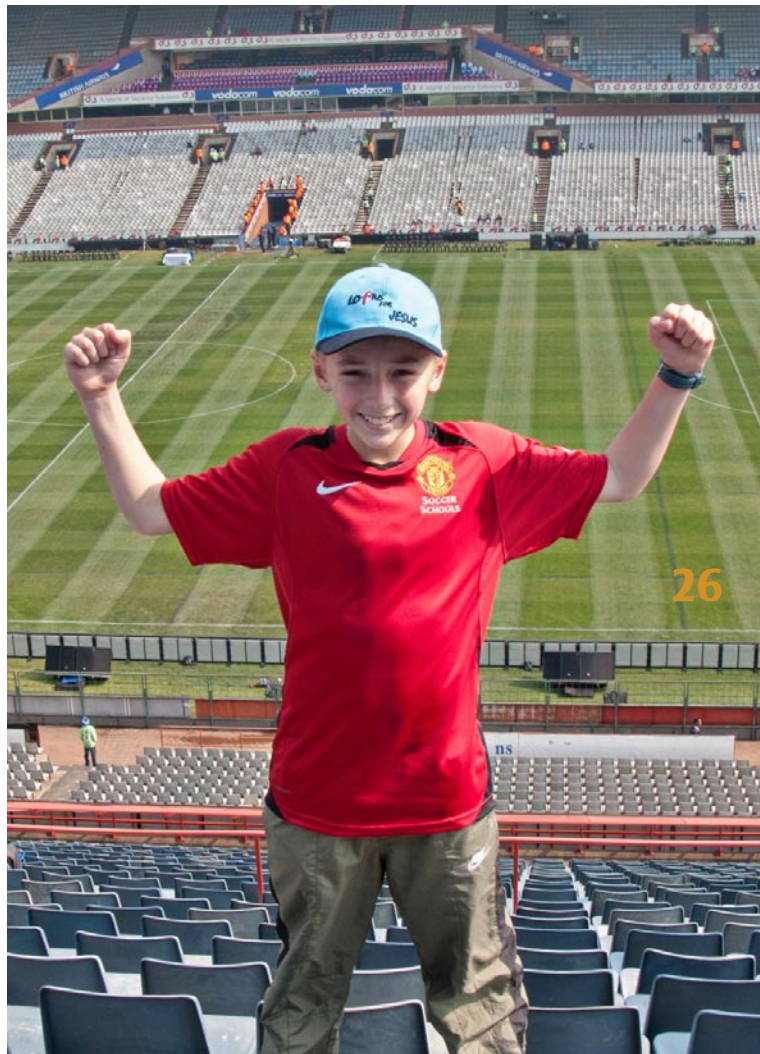
skinned Caucasians such as those found in our next two examples. The boy in Figure 25 is classic sun and shade. The Lesser Hammer default, Figure 26, improves everything. The face is better, and the darker grass works well to set it off. The foreground and background seats both are improved, as is the red shirt.

The more conventional portrait of the woman in Figure 27 shows how Lesser Hammer can add shape, particularly to light-skinned individuals. At this point, in the first release of this documentation, I wrote, “You can, of course, reduce the Overlay opacity if you feel that Figure 28 is too much of a good thing. I frequently find that this is necessary—but at least doing it improves the face, which Bigger Hammer and ACR maneuvering would not.

“Are these two fleshtone images revolutionary? No, but they’re pushbutton.”

All this is true enough, but sometimes Lesser Hammer can be rougher than the skintone can take. The problems can be addressed with masking and opacity reductions, but in view of the importance of portrait work to the professional, I decided there was a need for a softer action that would try to avoid the midtone crunch issue in

Figures 25–27. Lesser Hammer works well with faces that are in both sun and shade. Top, the original. Bottom left, Lesser Hammer defaults. Bottom right, the defaults of the Velvet Hammer action.



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Lesser Hammer.

Full discussion of that new action is beyond the current scope of this documentation. However, for comparison, Velvet Hammer results are shown in Figures 27 and 30. And I've added a third fleshtone image for balance, a man with darker skin than either of the first two subjects. Figure 31 is the original, 32 the Lesser Hammer, and 33 the Velvet Hammer.

My votes? The initial shot of the boy doesn't feature the face as much as in the other two photos. I prefer the Velvet Hammer face, I suppose, but it doesn't make up for the improvements that Lesser Hammer has engineered into the grass and background seats.

The woman in Figure 28 has very light skin. To my mind Figure 29, the Lesser Hammer, goes slightly to far in adding shape. But if opacity were reduced I doubt I'd have a preference between it and the Velvet Hammer version.

The portrait of the man in Figure 31 shows why the Velvet Hammer is a good idea. The face is strongly colored, so in Figure 32, Lesser Hammer adds a mountain of detail. If this were a flower and not a face that extra detail would be welcome. Here, I'm not so sure. Maybe your

Figures 28–30. Lesser Hammer can add shape to skin, particularly that of light-skinned Caucasians. Top, the original. Bottom left, Lesser Hammer defaults. Bottom right, the Velvet Hammer defaults.

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agenda calls for giving him a particularly rugged look but I think for most purposes the softer Velvet Hammer look of Figure 33 would be the winner.

Conclusions, Reminders, and Warnings

Notice that in Figure 28, contrast in the background trees has been reduced. This is what happens when Lesser Hammer encounters subtle colors in the midtone range. Here, that's great, as the greenery sets mood only and may detract from the face if too interesting. But in many other images such a loss of definition could be fatal. The presence of such near-neutral midrange object is a clue that Lesser Hammer may not be appropriate, and that you may wish to switch to Velvet Hammer even if the image doesn't contain fleshtones.

These things are hard to predict, though. The good thing about actions is that it doesn't cost much time to try one out and see if it's working. Here, though, there is an important warning, at the top of the following list.

- The Lesser Hammer action contains over fifty indi-

Figures 31–33. Lesser Hammer adds so much detail to skin that it may be perceived as sharpening, and some may find it offensive. Top, the original. Bottom left, Lesser Hammer defaults. Bottom right, the defaults of the Velvet Hammer action, which has certain safeguards against this effect in skin.



vidual steps. If you don't like what it does, you can easily get back to where you started—but no further. Those fifty steps are more than enough to flush your image history, so you won't be able to go back to a previous state. If the action eventually makes it into the PPW panel, it will be scripted, as the other actions are, to appear as a single history state, meaning that Command-Z will cancel it and leave the image history intact. But for now, be careful.

- We have discussed four different methods of enhancing highlight/shadow detail, and Velvet Hammer adds a fifth. They are not mutually exclusive; in fact they can be combined more effectively than if any one of them were applied twice.
- The Lesser Hammer action cuts back on color, the opposite of the behavior of the Bigger Hammer. It

therefore needs some kind of later color boost, such as the MMM + CB action.

- Similarly: unlike the other methods, the Lesser Hammer may leave you without a satisfactory white point, requiring that it be restored later.
- If you wish to use the Shadows/Highlights command, it should be run after and not before playing the Lesser Hammer action.
- Lesser Hammer is so powerful at bringing out detail that you may have to cut down on your usual sharpening routine later, to avoid an overly crunchy look such as, perhaps, Figure 32.
- Neither the Lesser nor the Velvet Hammer action can run in 16-bit mode, 8-bit is required.
Enjoy!