

Image Doctor (<http://www.alienskin.com>)

Image Doctor (\$130) from Alien Skin Software is a plug-in that I recommend with qualifiers. Image Doctor contains four tools; the ones that will most interest restorers are Smart Fill (Figure 3-14) and Spot Lifter (Figure 3-15).

Smart Fill is an extremely powerful image repair utility. Smart Fill serves a function similar to that of Photoshop CS2's Patch Tool, but it is more sophisticated (and more difficult to use). It can fill in large gaps in a photograph with surrounding tones and complex textures so adroitly that it's difficult to tell that any repair work has been done (Figure 3-16).

Image Doctor is brilliant when applied to simple selections but not good on complex ones. It's sometimes easy to create a selection mask that isolates the missing parts of a photograph or a network of cracks (see Chapter 7, Making Masks), so that you can work on restoring those without messing up the remaining photograph. You'd think Image Doctor would be the perfect tool for filling in networks of cracks or crazing in a photograph and for quickly restoring missing chunks of image. The problem is that the amount of computation that Image Doctor has to do increases with the complexity and size of the selection (obviously very high for networks of cracks). Image Doctor creates a sampling box for re-creating the missing detail based on the expanse of the selected areas; for damage scattered across an entire photograph, Image Doctor attempts to analyze the entire photograph for all of the regions that need repair. The result is exponentially increasing processing time. I can readily come up with selections that take Image Doctor the better part of an hour to process. Image Doctor will tax the fastest CPU you can throw at it.

Image Doctor is so useful, though, that it's worth figuring out some work-arounds. The following work principles tame Image Doctor enough to make it a useful tool:

- Divide the photograph into small regions, and work on them separately. Image Doctor will take much less time to fill in many voids that fall within a region that's only 5% of the total area of the photograph than it will to fill in a handful of voids scattered across the entire image.
- The more complex the shape of the selected regions to be filled in, the longer it seems to take Image Doctor to do its job. Smooth masks to keep the edges and contours of the selections as simple and uncomplicated as possible.

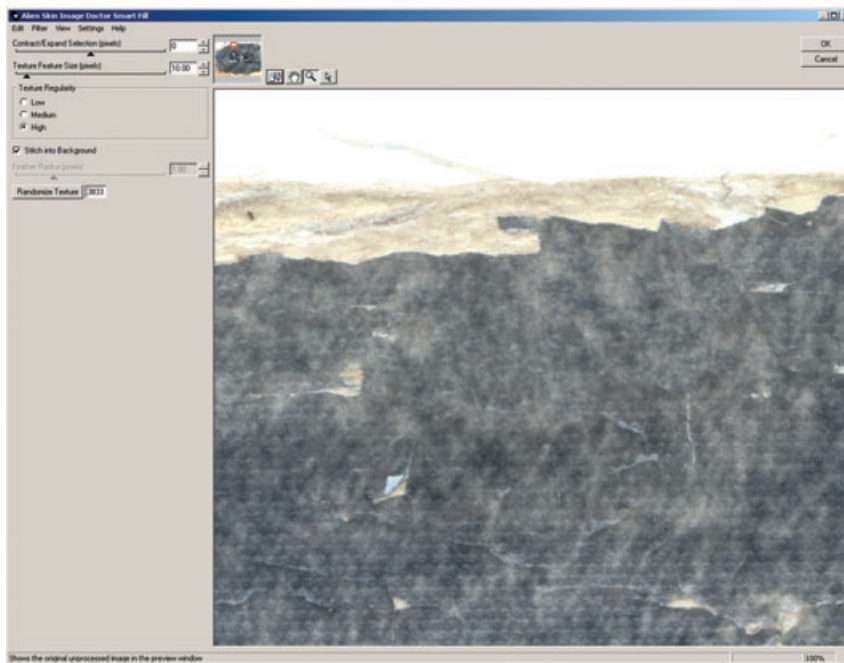
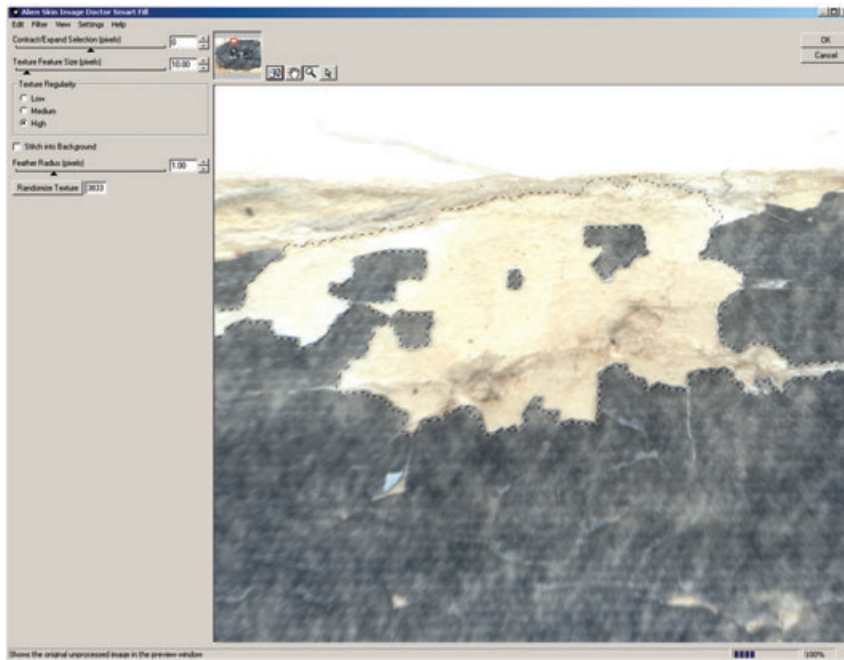


Fig. 3-14 Image Doctor is an efficient plug-in for doing the first level of repair on damaged originals. Its Smart Fill function repaired the selected area in the top photograph, producing the bottom photo (this is a close-up of the photograph in Figure 1-3). Smart Fill can't perfectly interpolate detail that isn't there, but it does a good enough job of reestablishing tones and textures to substantially reduce the amount of manual labor needed to completely fix the missing pieces.

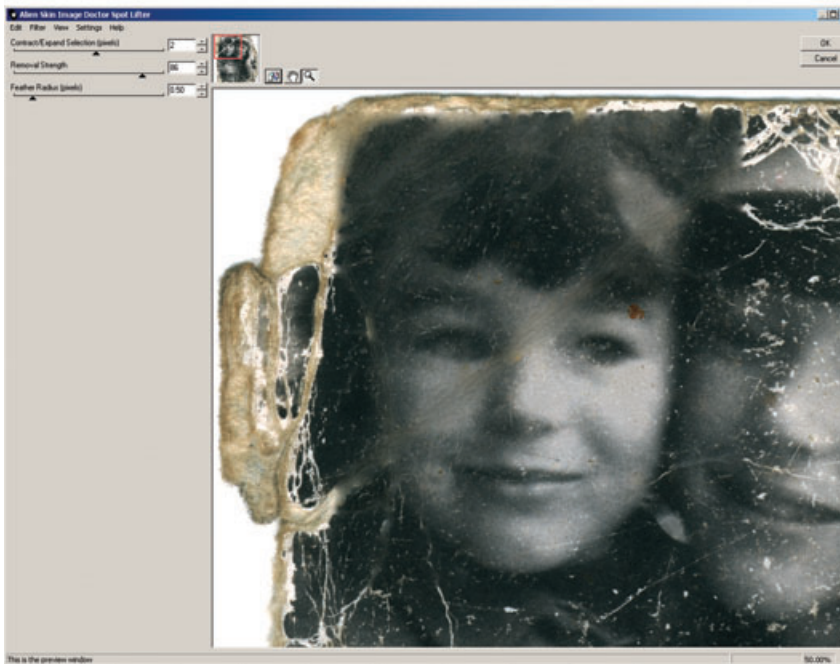
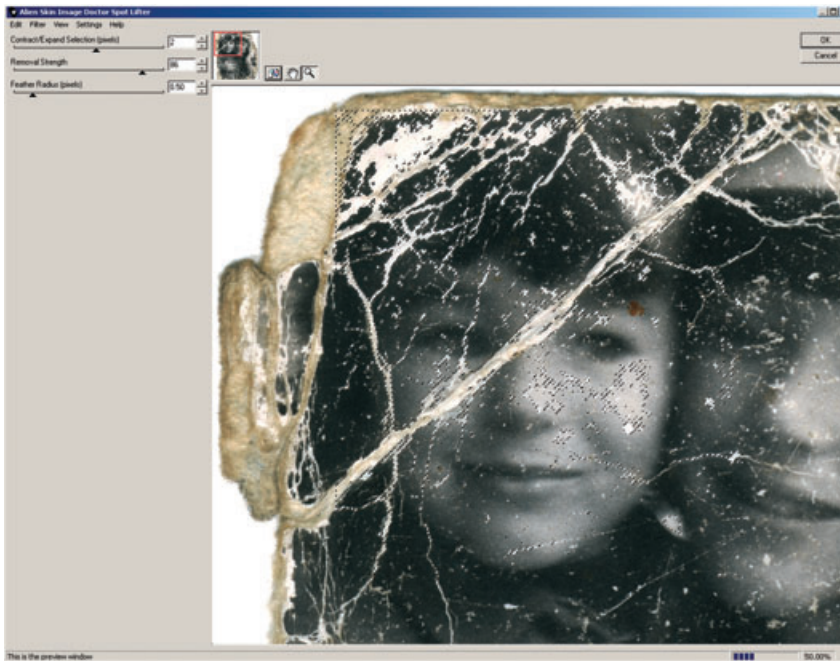


Fig. 3-15 Image Doctor's Spot Lifter works rapidly on complex selections (upper photo), but it doesn't create brand-new textures like Smart Fill does. It did a very good job of filling in the cracks in this portion of Figure 1-8, once I had created a selection for them (see Chapter 7).



Fig. 3-16 Smart Fill can repair multiple areas in one pass, as it did in the photograph on the right, but you'll need a very fast computer and patience. It's still a lot faster, however, than doing the repair work by hand!

Spot Lifter is Smart Fill's simpler sibling. It's faster and easier to use, but it doesn't do anywhere near as clever a job of replicating surroundings, because it doesn't attempt to duplicate textures. It doesn't work well when the void it's filling is surrounded by areas with lots of detail. Spot Lifter will work on much larger regions and more complex selections without taking insanely long amounts of time. Spot Lifter usually doesn't do an invisible repair job, but it often suppresses damage to the point that it is no longer a distraction in the printed photograph.

Image Doctor also includes a highly effective JPEG Repair tool. You won't need this when working on scans you've done yourself, but on occasion you may have to do restoration from a file someone sends you because they don't have the original any longer. It's possible to do decent restorations from such files, and in those circumstances you'll find JPEG Repair valuable for cleaning up compression artifacts. It does a much better job than Remove JPEG Artifact in Photoshop's Reduce Noise filter.