PART IV

Working with Color and Shadows

With the pieces in place and looking right, it's time to turn to the details—taking what's there and bringing it to the next level with the right color and shadows.

Details are one of Lund's fortes. His years of photographic experience give him an eye for nuance and color that comes from close observation of the world around him. While it may take years for casual photographers to develop a visual sense as acute as Lund's, the techniques he uses to incorporate his insights into his image are easily learned.

This section offers a peek at the kinds of things Lund looks for and the Photoshop techniques he uses to implement his vision. If you're expecting hard and fast rules, though, you won't find them here. "I have no formula for how to do this. For me it's always a matter of experimenting," Lund says.

Painting color into the exploding debris with basic brushes adds punch to an already dramatic image.

The Power of Color

The application or removal of color can punch up an image or subdue its mood. “Color can bring an image to life or it can take it over the edge,” Lund says. “Luckily, with Photoshop we have the tools to create exactly the right color effect for an image.”

“Crash Test Dummy” is a good example of how adding color to selected parts of an image can heighten its dramatic impact. The image itself—a multilayered composition of exploding computers and flying debris—is interesting and well made, but it lacks punch. Painting color into the explosion gives the image just the right amount of visual *oomph.*

Using Photoshop’s paintbrushes to color an image is a relatively straightforward process—pick a color, choose a brush, change its size—but it takes a few more steps to make painted-in color look natural. Playing with opacity levels and adjusting color intensity with Curves adds subtlety to the colored plumes of smoke.

Simple adjustments with the Hue/Saturation controls and its Colorize option make an ordinary rooster exotic.

At the other extreme of how Lund adds color to an image is "Rooster." It's a very simple image—just a rooster composited against a sunrise. Indeed, the image would be nothing special if it weren't for the intense color Lund applies with Photoshop's Hue/Saturation controls. "With an image like 'Rooster,' using Photoshop to exaggerate color transforms an ordinary image into the extraordinary," Lund says. He notes with pride that "Rooster," one of his first Photoshop images from the early 1990s, remains a very popular stock image as this book goes to press.

The Secrets of Shadows

As we've seen in images like "Dominatrix" in Chapter 7, Lund pays a great deal of attention to the way light falls on an object, and the reflections and shadows the light creates. "Shadows are what separate the men from the boys," Lund says. "Bad shadows can ruin a composite, while well-done shadows can make a composite exquisite."

"Pool Dog" shows how shadows lend reality to an image. Anyone can tell that this image is an composite (unless they know a bloodhound trained to sip Mai Tais by the pool), but Lund's careful attention to the color, depth, and angle of shadows makes the image remarkably believable.

"When creating shadows there are many factors to take into consideration, such as the color of the shadow, its dimension, its falloff, and so forth," Lund says. "Leave any one of these important factors out, and the result will be a poor shadow. Most of all, you'll have a composite that just doesn't work."

In “Pool Dog,” you’ll see the many ways he creates shadows for different effects. “Making shadows requires a lot of tools and exploration,” Lund says. “In some cases it might mean duplicating a layer, darkening it down, and using a layer mask, while in another case it might be a simple brush stroke.” Lund creates his shadows on separate layers, so that he has the latitude to try different colors and opacities, shift shadows into the best positions, and adjust the shadows’ colors.

The raft’s shadow derived from the actual photo shoot, while the ball’s and the dog’s were added later. The angle and color of the raft shadow set the tone for the others.

With the image stripped away, these layers reveal the various colors and opacities Lund applied to shadows to get the best results.

Featured techniques
Painting with color brushes

CHAPTER 12

Adding Impact with Color

"'Crash Test Dummy' was actually the idea of *BYTE* art director Brian Day, who commissioned it for a computer magazine cover in the late 1990s. I later remade and embellished it for use as a stock image.

Putting together the original estimate for Brian, I found that renting a real crash test dummy would cost $3000—more than the entire budget for the finished cover. I remembered, though, that years ago I had shot such a dummy for an annual report. I found the images in my files. The photos were taken from the side, and the hands weren't visible. However, I thought the slides would still work.

The exploding parts came from a shoot I had done in the mid-1990s for yet another computer publication. In that case, we had contacted Survival Research Laboratories (SRL), a company that puts on pyrotechnic displays. When we arrived at SRL, our contact greeted me with a handshake—which is when I noticed he was missing some fingers. He introduced me to his associate who was wearing an eye patch. I resolved to be very careful during our shoot."

Client: BYTE magazine, then remade as a stock photograph, published by Stone, a division of Getty Images

Crash Test Dummy

Pick Up the Pieces

"Crash Test Dummy" is a good example of image recycling. The main components came from Lund's files: a mannequin from 1985 and explosions from the mid-1990s.

The crash test dummy was photographed at Failure Analysis Corporation in 1985 for its annual report. "I have to say that there is something unsettling about working with crash test dummies, especially when you see them out of the corner of your eye, just hanging around and watching you," says Lund. To make the photo more interesting, Lund added the scientific backdrop, assembled the machinery, and instructed the technician to play with wires. "Often as a photographer you walk into a photo shoot and there's nothing in the room. You need to find a way to add interest," he says. "People don't realize the degree of fabrication that goes on with traditional photography, as well as with a computer."

Because setting off actual explosions is illegal in San Francisco, Lund turned to Survival Research Laboratories, a company that builds machines, produces pyrotechnics, and makes performance art. SRL has built a reputation for creatively blowing things up, and this photo shoot was no exception. The SRL team filled soda cans with cement and then fired them from an air cannon at 500 feet per second, pulverizing the computer monitors—in a legal way. Lund remembers that the air cannon was fired by an SRL operative whose helmet was wired to the gun. "Wherever he turned his head, the cannon followed. For once in my life I didn't want to get someone's attention."

The computer and airbags were shot in the studio with a Leaf DCB attached to a Hasselblad medium-format camera. Lund constructed the airbags from a piece of cloth that's normally used with a fill reflector. He tied the material around a strobe-light head, whose fan inflated the material. For the second airbag, he made an indentation where the head would hit by setting up a light stand and attaching a pole that pushed into the material. "I shot two different airbags so that I would have alternatives," he says. "There is nothing worse than being in the middle of imaging and realizing you don't have the right parts."

Brace for impact: The white-coated technician fiddling with the wires worked at Failure Analysis Corporation.

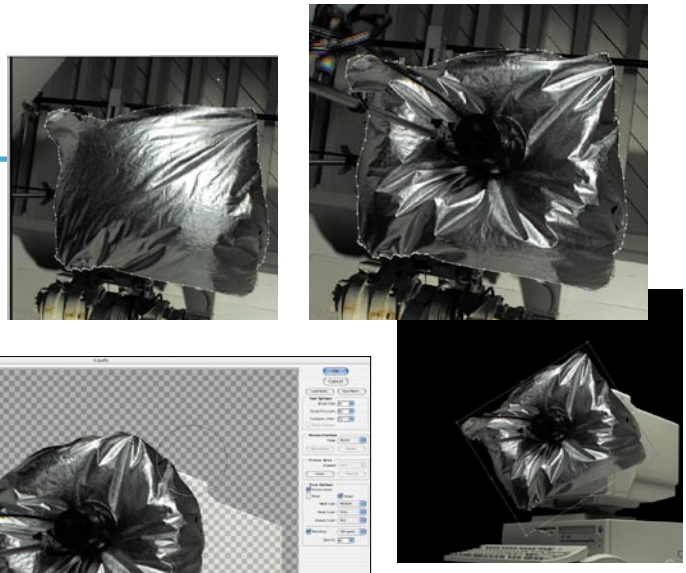
A soft landing: Lund had never seen a real airbag when he made this shot, so he imagined a metallic silver airbag would add drama and look more high-tech. "Plus, I had the material on hand," he notes.

Monitoring the scene: "I just grabbed a computer out of the office. I knew it would be covered up by the exploding debris, so it didn't matter." He adds: "If I could tell the future I would have done it with a flat-screen display."

Man against machine: Lund recorded the carnage of exploding computer monitors with three Nikons equipped with fast motor drives. "To do a realistic composite, I need the right parts to work with," Lund says, "and the only way to create a really effective explosion is to explode something." The shots were also used in "Impact" in Chapter 11.

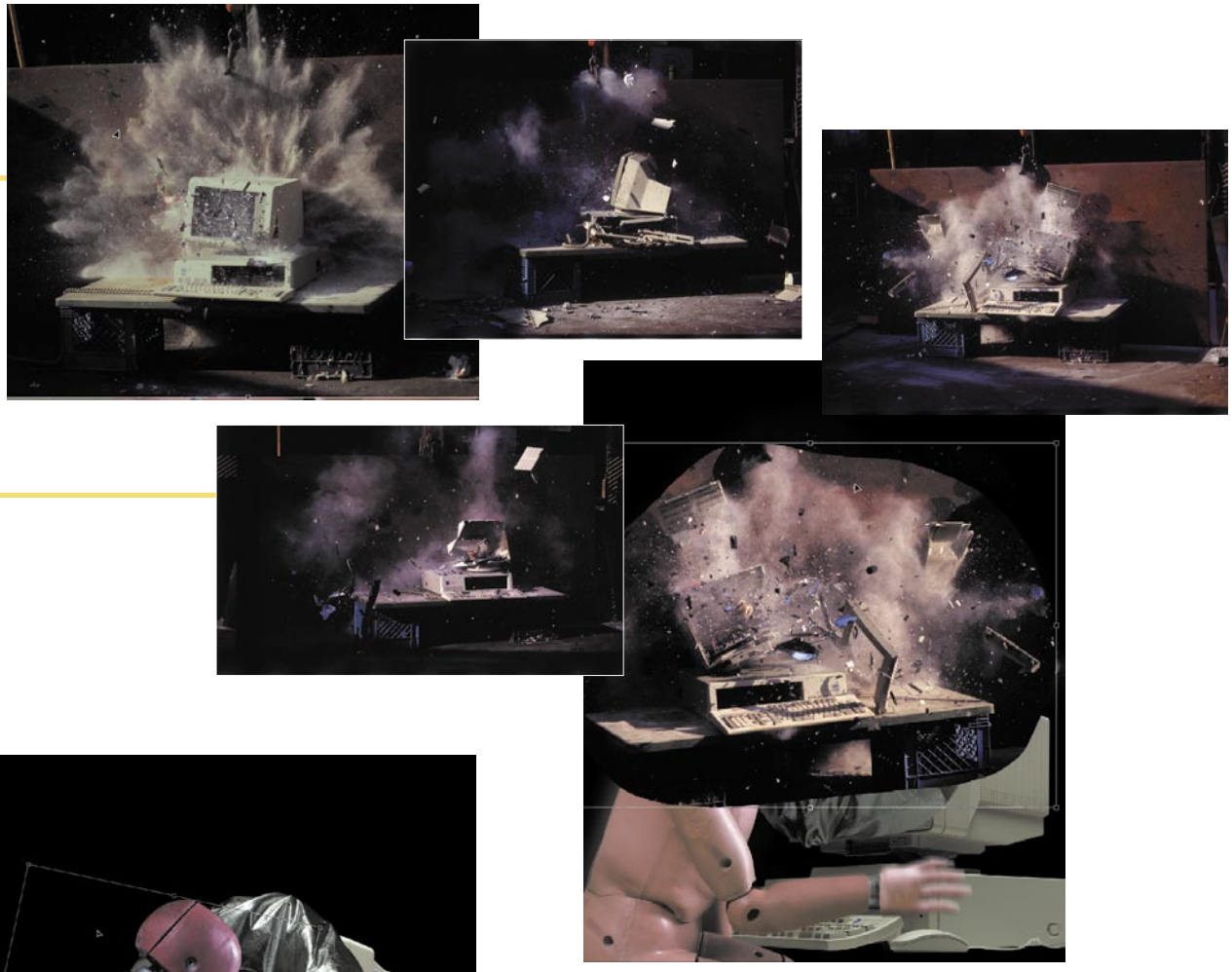
Full Speed Ahead

Lund selects the computer with the Pen tool, converts the path to a selection, and positions and sizes it in a new image, using Free Transform.

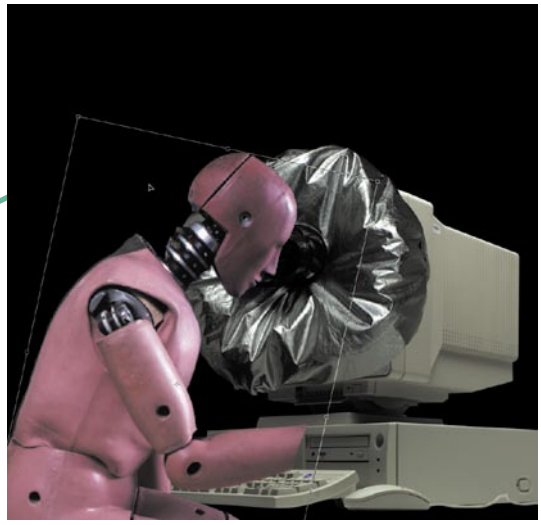


Lund selects the two airbags with the Pen tool. He pastes the first bag into the image of the computer, sizing and positioning it with Free Transform. To make the indented airbag look squishier, he uses the Liquify filter's Warp brush to push and pull it into a more rounded shape. He pastes the second airbag into the image, positions and sizes it with Free Transform, then uses the Liquify filter to emphasize a large crease near the bag's center to add to the impression that the dummy's head is pushing into the bag.

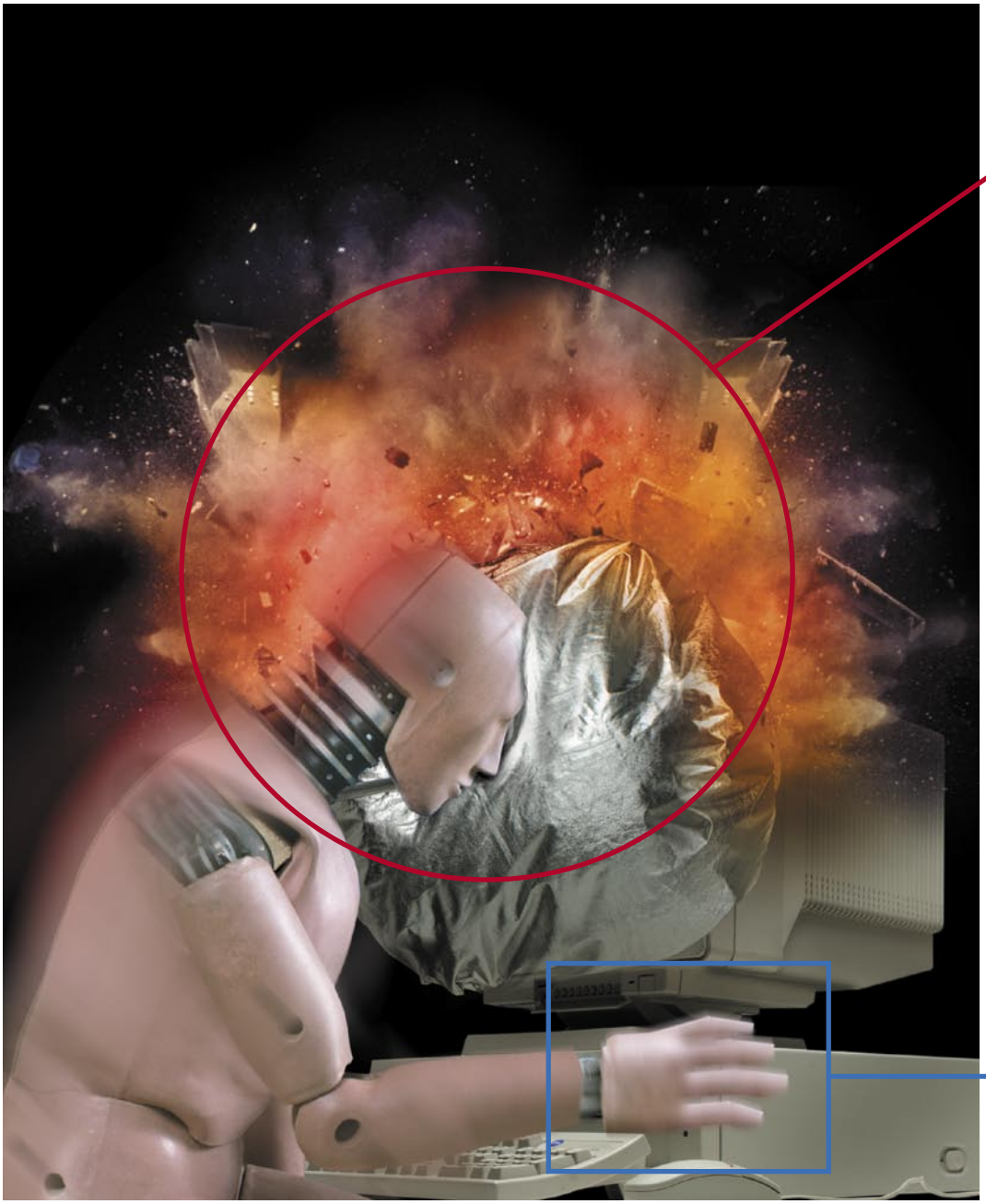
To blend the two bags together he makes a Hide All layer mask for the second bag and paints the crease back into place, blending it with the surrounding bag. Toward the end of the image composition process, he duplicates the dummy layer and places it at the top of the layer stack. Then he uses a layer mask to paint away the leading edge of the dummy's forehead so that the bag appears to be enveloping the head.



Four different shots of a computer being destroyed were painted together using layer masks.



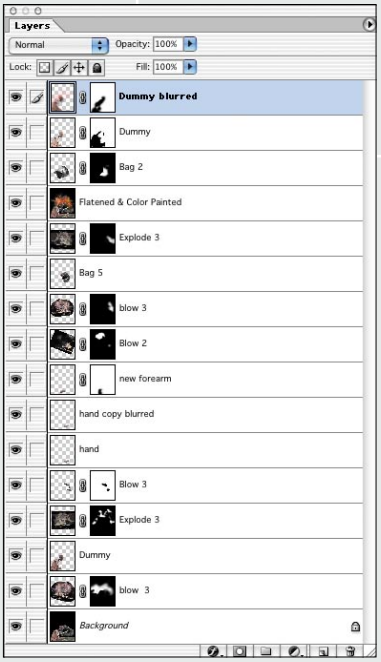
Lund selects the crash test dummy with the Pen tool. He copies and pastes the selection into the main image, flips it horizontally, and then rotates, sizes, and positions it using Free Transform.

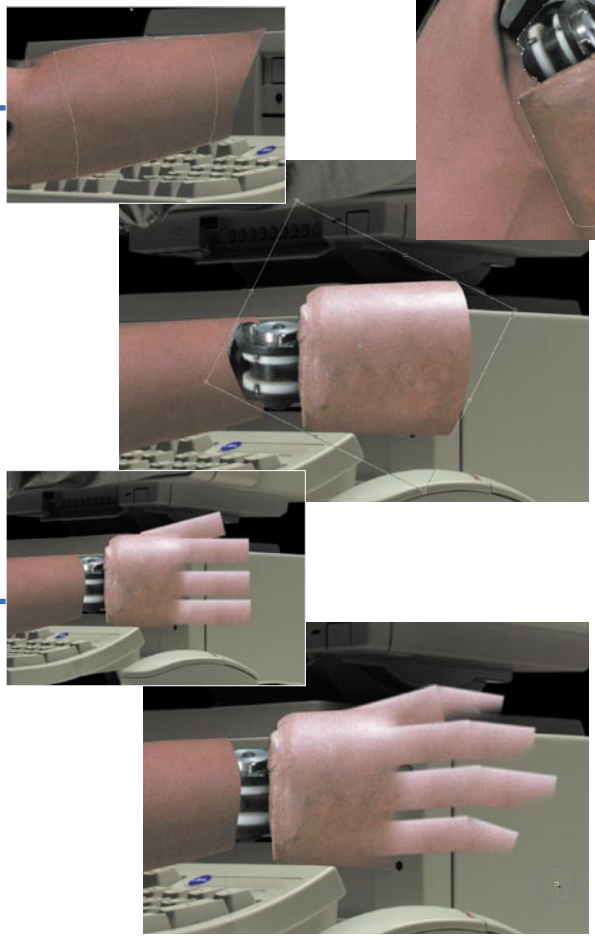


Lund adds color to the explosion by painting with an airbrush, its layer blend mode set to Color. He plays with its opacity and flow settings until he gets the desired effect.

THE LAYERS

How the image stacks up





Now Lund faces the real problem: "It becomes glaringly obvious that our dummy has no hand," Lund notes. He'll need to create one. He selects a patch of the forearm, then makes a new layer from the selection and extends the forearm with it. Using the Pen tool to make a path, he selects the shoulder joint and part of the upper arm and uses that selection to create a hand.

The fingers start with a rectangular piece selected with the Marquee tool. Lund makes a new layer for the new digit and duplicates it three times for a total of four fingers. He duplicates the fingers again, and rotates the new layers to curve the fingers slightly. He swipes the Burn tool along the underside of the fingers to give them dimension. Adding Motion Blur to the dummy's fingers and to the back (by adding Motion Blur to a new layer, which he paints in selectively with a layer mask) gives the impression of movement and speed. Blurring the hand also hides the patchwork nature of the new appendage.

Using Paint Tools to Add Color

Professional photographers like Lund are very careful to control the lighting in their shoots, but what's visible after the film is processed does not always have the desired impact. Sometimes, as in this case, a new color strategy is needed when the image is in a new context. That's when an artist like Lund turns into a painter. He uses Photoshop's paintbrushes to add color to pump up the drama or change the mood of an image. In "Crash Test Dummy," the contrast of the colorful explosion against the neutral-colored debris adds to its shock value.

Whether painting with color or blending in layer masks, Lund almost always uses the airbrush setting for his brushes—he likes the way it builds up its effect slowly. His choice of brush size is somewhat arbitrary, though—he just experiments with different sizes. Often he'll start out with the brush settings left over from a previous step. "I use whatever happens to be there, and if it proves to be less than effective, I change it," he says. Most of the time, it works just fine.

Step 1: Painting with explosions

Lund begins by creating a custom explosion—with layer masks rather than dynamite. "This is the fun part!" he says.

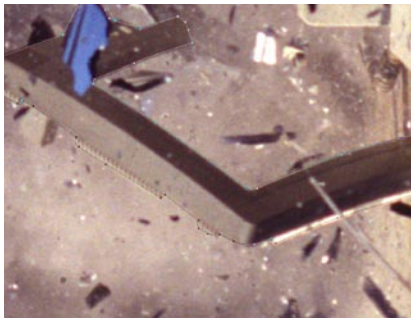


Figure 12.1

He opens the first monitor-explosion image and selects a part of the monitor frame with the Pen tool (**Figure 12.1**). He adds it to the main image that now includes the intact monitor, the airbag, and the dummy, which he has Pen-tooled, converted to a selection, and pasted into the image (**Figure 12.2**).

Adding a layer mask (Layer> Add Layer Mask> Reveal All), he paints away unnecessary portions of the monitor with a 308-pixel soft brush, switching to a smaller 55-pixel brush (in an 88-MB image) for the detail work. To make this new frame match the rest of monitor, he brings up Color Balance (Image> Adjustments> Color Balance) and nudges up the green level of that layer to +15 **(Figure 12.3).**

To add the first round of debris, he uses the Lasso tool to select a central portion of the first explosion image. He copies it, then pastes it and transforms it in the composite image (**Figure 12.4**). With another layer mask (Layer> Add Layer Mask> Hide All), he paints in the explosion with a 1242-pixel brush (**Figure 12.5**).

To get the proper sense of perspective, Lund shuffles layers. At this point, Lund sees that he has made a mistake: "I notice as I glance at my Layers palette that somewhere along the line I flattened the whole image. *Gulp!* It must have been when I was supposed to merge linked layers," he says. Flattening eliminates key layers and selections that he needs later in the process. "Well, let's continue and see how it goes!" he says. While not a complete disaster, this will mean more work, since he will have to repeat the process of selecting the dummy with the Pen tool. One consolation: Because it's his second time making the selection, it goes much faster. "When I remade it, I timed it: three-and-a-half minutes," he says with equal measures of chagrin and pride.

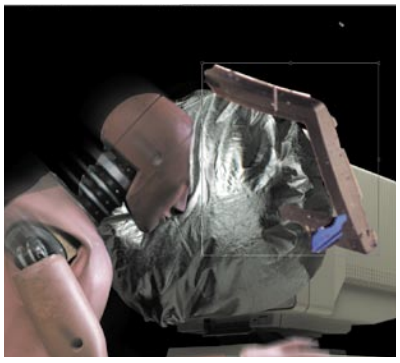


Figure 12.2

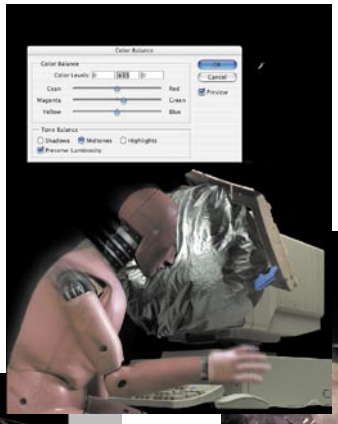


Figure 12.3

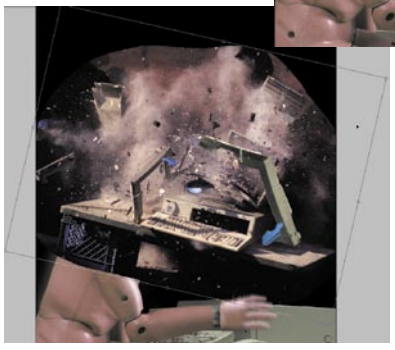


Figure 12.4

Figure 12.5

He clicks the background layer, then activates the Pen tool path he made of the dummy and turns the path into a selection again with a 1-pixel feather. He puts this new dummy layer just above the background layer, then sandwiches the explosion layer between them (**Figure 12.6**). The reshuffling yields a different emphasis on the exploding computer parts and changes the shape of the head.

More explosions are needed. He opens three more explosion images, copying and pasting them into the composite, adding layer masks (Layer> Add Layer Mask> Hide All), and then painting in the explosions with 442-pixel brushes **(Figure 12.7)**. All three (called Explode 3, Blow 2, and Blow 3, in Lund-speak) are transformed for position, angle, and orientation (**Figure 12.8)**.

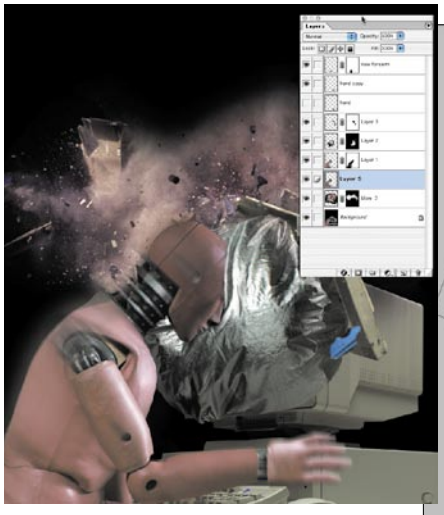


Figure 12.6

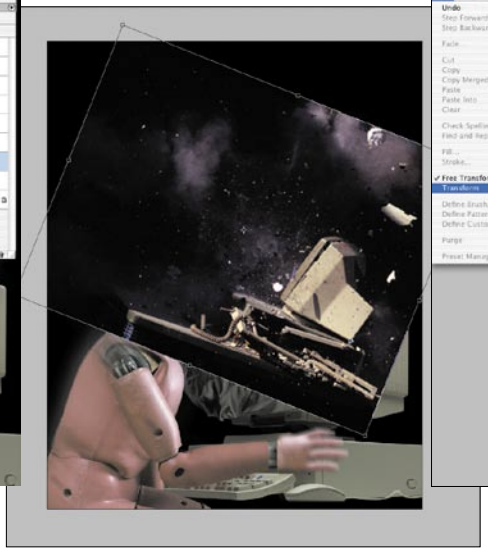


Figure 12.7

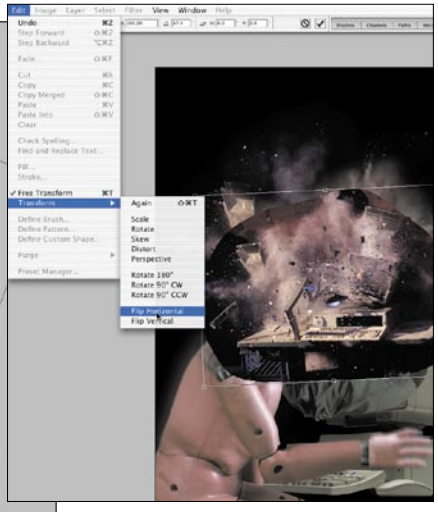


Figure 12.8

Lund "turns off" all the layers in the Layers palette except the background by clicking on the eye icons **(Figure 12.9)**. He selects the airbag from the background with the Pen tool and copies it into a new layer (Layer> New> Layer via Copy), then pastes in another explosion (**Figure 12.10**) and paints it in with a layer mask. Working with a layer for each image gives Lund flexibility in how the two images interact.

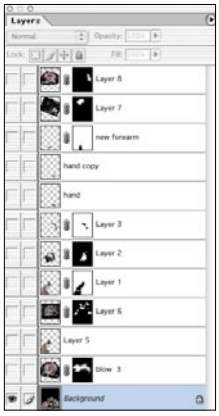


Figure 12.9

Figure 12.10

As a final touch, he uses the Burn tool (at 40% and set to Midtones), and with a 911-pixel soft brush adds a shadow from the explosion onto the computer on the background layer (**Figure 12.11**).

Figure 12.11

Step 2: Flattening layers—while keeping layers intact

He's fairly happy now with the shape of the explosion, but Lund wants to add color to the smoke and dust emanating out. The color that was right for the magazine cover won't do in this image—and it's a lot safer to add color in Photoshop than to try to create it in the midst of an explosion.

Lund simplifies the task even further by deciding to combine the explosion layers into a single layer, instead of coloring each layer individually. "I want to blend the colors in and out, play with opacity, and so on. Working on individual layers would quickly become a quagmire," he says.

Using the technique we saw in "Lighthouse" in Chapter 6, Lund creates a flattened version of the file in a new layer by creating a new layer at the top of the stack, and with the new layer selected, holding down the Option/Alt key and choosing Layer> Merge Visible.

Step 3: Painting with color

After all that preparation, the exploding debris can be imbued with flame-like colors of red and orange. He selects the paintbrush from the Toolbox, and in the Brush Options palette, clicks on the airbrush icon and makes a brush of about 1009 pixels, and chooses the Color blending mode. He picks a red color to simulate the fire of an explosion (Window> Color), dials down the opacity to 63% (**Figure 12.12**), and starts painting (**Figures 12.13** and **12.14**).

Figure 12.12

"Opacity can be used for a number of things," Lund says. "One use of transparency is to be able see enough through one element or layer so that you can clearly line parts up; the other is to create more subtlety in your composite, as I did here. I advise altering the opacities in your project just to see the effect—even if you're happy with something, try changing the opacity. You might yield even better results."

Painting, for Lund, is long on intuition and short on science. "It involves a lot of pressing Command-Z and going to the History palette to undo strokes and retrace my steps," he says. "I switch colors

Figure 12.13

Figure 12.14

frequently and paint them in with varying degrees of overlap." Lund doesn't name or define his color swatches—he simply clicks on the color swatch in the Toolbox and uses Photoshop's color picker to choose his colors. "If the colors or overlays don't look right to me, I go back a couple of steps in the History palette and then try again with slightly different colors and amounts of overlap," he explains. The main thing, he says, is to trust your judgment and keep your fingers hovering over the Command/Ctrl-Z (Undo) keys.

Step 4: Touching up

Lund continues reordering layers and painting with layer masks to get the right sense of depth in the scene, such as making sure the dummy's forehead looks like it's being enveloped by the airbag. Lund moves the layer containing the blurred dummy to the top of the stack to accentuate the sense of motion **(Figure 12.15).**

Then it's time to look at the overall image for any fine-tuning. The dummy's head is a little dark, he sees. "I need to lighten it up and to introduce a little of the explosion's color," he notes. "For that matter, some of the color in the explosion looks a little too green." To take care of all of the color matters he chooses the airbrush, sets the mode to Color, the opacity to 50%, and the flow to 20%. Reducing the flow of the airbrush makes the paint build up at a slower rate, producing a more subtle effect. Choosing red for the foreground color, he paints red to bring the explosion's impact into the dummy and into the greenish parts of the explosion (**Figure 12.16**).

Figure 12.15

Figure 12.16

The final color tweak is to lighten up the dummy's head. First he checks to see that in the topmost dummy layer the head is the part that's visible through the layer mask (he doesn't want to lighten the whole dummy, just its head). It is, so he clicks on the image icon next to that layer (to ensure that he activates the image, not just the mask), then brings up Curves (Image> Adjustments> Curves) to lighten it **(Figure 12.17).** "Finally, or almost finally, there is an area of the airbag just in front of the dummy's face that looks too gray," he notes. He uses a 140-pixel soft brush with the Clone tool on the airbag layer to fix that up (**Figure 12.18**). Safe at last.

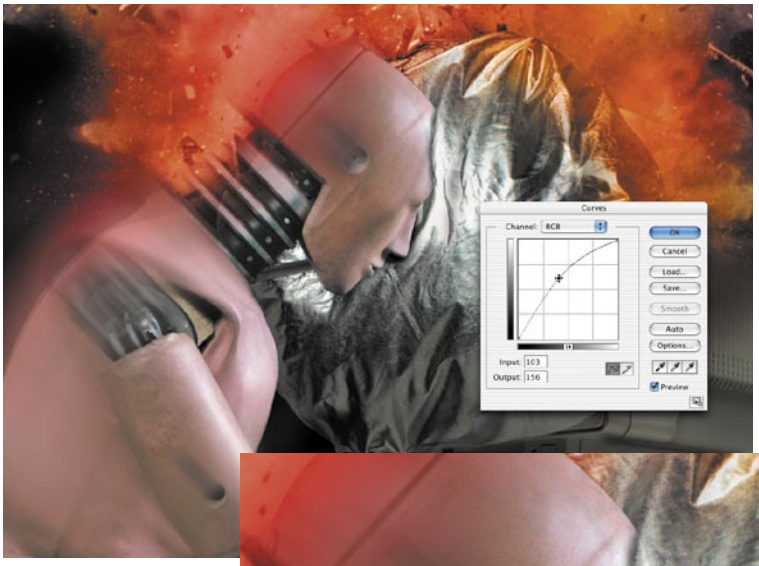


Figure 12.17

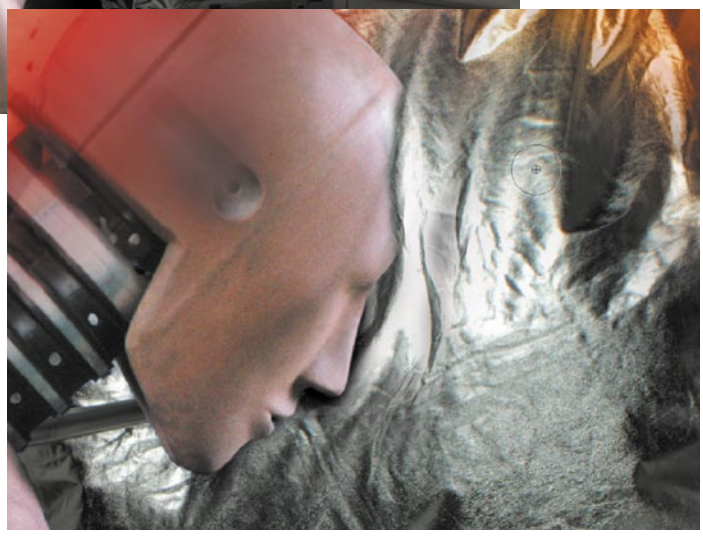


Figure 12.18