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Cyber

The inspiration for this project came from ideas of technology and it's applications in photography. I attempted to prepare a commentary on how technology is encroaching on and distorting traditional photographic work. My final project is a single picture: a hand crushing a traditional black and white photograph, while being overtaken by an underlying artificial source.

To begin, I started with two photos taken with a Nikon manual camera on 400 speed Ilford HP5 black and white film. The first picture was a hand in gravel, and the second was of several people studying at the base of a flagpole. After I developed the film, I scanned the two pictures into digital format with a Leafscan negative scanner. The final picture needed for this project, the back of a circuit board - was taken with a digital camera.

To manipulate the photos and meld them together, I used Photoshop 7 on my personal computer. The first task was to adjust the levels in the two black and white photos. I then began work on creating the crush effect on the black and white photo of the people sitting under the flagpole. I applied a Wave Filter, native to most versions of Photoshop. The parameters were as follows:

Generations: 1
Wavelength: 234, 645
Amplitude: 99, 146
Scale: 1, 100

After the wave effect was complete, I needed to add shadows, which would serve as guidelines for later touchups. At the low point of each wave I created a vertical gradient, from transparent to black to transparent again. I set this in a new layer and changed to opacity to give the shadow effect.

At this point I moved on to the hand picture and changed modes to RGB color. In order to crop out the background of this complex picture, I used the extract filter to trace around the hand. I used the smart highlight and smoothing features to help in the process of a clean cutout. Once I had the isolated hand, I cut off the pinky and index fingers (which were not suitable for the desired effect) and replaced them with the ring and middle fingers. I touched up the hand minimally with the blur, smudge and clonestamp tools. I duplicated the layer twice and began working on adjustments.

The first copy of the hand needed to be colorized, in order to make it appear to be a color photograph. To achieve this I adjusted the hue and saturation with the following parameters:

Hue: 20 Saturation: 27 Lightness: -5

The second copy of the hand needed to be "cyberized". For this I used a filter named Metalwork with these parameters:

Reflection 1: 77 Scale 1: 201
Reflection 2: 127 Scale 2: 202 Color: 107

With two copies of the hand done, I began the joining of the two to appear as one hand. I selected the middle part of the human colored hand and used the feather tool to

create a jagged edge for where the “cyber” takes over the “human” on another layer. I then erased the unneeded part of the human hand.

At this point I decided to have some text as the skin of the cyber hand. I chose select dialog from the script of the movie “2001: A Space Odyssey”, due to its ideas about technology and “thinking computers”. The trick with making text look like skin is fairly simple. I typed out the text over the entire hand, rasterized the text so that it became an image instead of editable text and used the apply image function in difference mode (24%) to the cyber hand layer. This creates a new layer with the two images joined, fairly translucent, and with the text appearing to contour to the shadows of the picture. This lies on top of the original cyber hand. I cropped away the extra text and merged the three hand layers: the cyber hand, the human half-hand, and the feathered hand.

Progress check: we now have the complete hand and the picture with mock folds. We now bring those two images together in a new file. In order to get the correct alignment, I moved the hand upwards and duplicated the arm so that it extended to the border of the picture. I copied and pasted portions of the arm to achieve this effect, and then blurred the edges to form a seamless, longer arm. To create the crushing of the picture, I selected small horizontal slices and applied a series of perspective transforms to give it an hourglass type of shape. I then went in with the smudge tool to detail around the fingers.

At this point I had a rough copy of the main objects in my digital picture, so it was time to tackle the background. In order to make the picture seem as if it was being pulled away from some sort of technology, I decided to lay in a series of circuits as the background. I made multiple copies of small sections of the circuit board on multiple layers, shrunk them and aligned the seams. Since the photo was very light, and much too real looking, I adjusted the brightness and contrast to give it a dark neon glow. I set the brightness to -62 and the contrast to 38. This gave me the desired effect.

With an entire rough draft completed, it was time to do detail work. In order to create realistic shadows, I created a filled black square under the squashed photo, modified the edge vectors so that it followed the curve of the picture, gave it a Gaussian blur and finally modified the opacity of the layer. I then filled in shadows under the ripples with the paint brush in airbrush mode and a pressure of approximately 40 – 50 percent. I gave the picture itself depth by following along the original shadow gradients with the burn and dodge tools. I also went over various parts of the entire digital collage with smudge, erase, dodge, burn, clone, and blur tools to correct any imperfections.

As a final touch, I decided to create sparks connecting the hand to the circuit board. To make realistic sparks, I selected a random shape on a new layer and filled it with a starburst gradient from black to white. I then applied the Difference Cloud filter to the gradient and inverted the colors afterwards. Next, by manually adjusting the level of the blacks closer to the white and grays, you create hazy white streaks – sparks! To give them a nice realistic look, I adjusted the hue and saturation until I saw some purples and yellows. I then adjusted the layer mode to Lighten to get rid of the black outlines.

After a few more minor touchups with vector masks, the image was done. I used a dye-sublimation printer for my presentation ready prints.