

Moving Pictures: Creating Multiplane Animation From Photographs  
The Kid Stays in the Picture has over 600 photographs but don't call them stills.  
By Jun Diaz

I first met Academy Award-nominated filmmakers Nanette Burstein and Brett Morgen at the Sundance Film Festival in 1999. We met again a couple of years later when they approached me to be creative director and editor for *The Kid Stays in the Picture*, their documentary film about famed actor and Paramount Pictures producer Robert Evans ([www.thekidstaysinthepicture.com](http://www.thekidstaysinthepicture.com)). As the onetime head of Paramount, Evans was known as much for his extravagant and indulgent lifestyle as for his string of box-office hits, including *Rosemary's Baby*, *Love Story*, *Chinatown*, and *The Godfather*.

Burstein and Morgen's decision to sign me as editor and creative director for *The Kid Stays in the Picture* was based on my design and editorial experience. The documentary, adapted from Evans's 1994 tell-all autobiography of the same title, presented a major challenge: How would we produce an engaging, immersive film with only archival footage and still photos?

One long voice-over

Evans represents one of the last Hollywood moguls during a time when movie studios were driven by personalities rather than committees. We wanted to convey what a big risk-taker he was, and also communicate his power and charisma to viewers. Viewers never actually see Evans narrating or being interviewed for the film. There are no talking heads, except for archival footage of Evans being interviewed on television years ago. We had access to rare footage and over 2000 vintage photos we could use.

Because viewers never see Evans, the film is basically one long voice-over, yet we had to keep people interested for 90 minutes. We knew we didn't want a traditional, VH1-style documentary that showed a series of photographs with crazy camera moves. We also didn't have the budget for a large graphics and postproduction team. To keep costs in line, we wanted to use desktop tools for almost all of the production. We also felt that those desktop tools would give us the flexibility to experiment with a wide range of creative ideas.

We wanted to intersperse the rare film clips with the photographs in a unique way to create an experience similar to watching a scrapbook of Evans's mind unfold (see Figure 1).

So we tried to make still photographs - appropriately matching the tales of Evans's life - come alive with backgrounds that move as the subject remains still. We added small touches, such as smoke billowing from a cigarette seen in a photograph, to give the film a deceptive but intriguing sense of motion. We interspersed the still photos with clips from Evans's career, as well as archival footage and behind-the-scenes peeks from several productions, such as a whimsical Mia Farrow in *Rosemary's Baby*.

We either left the archival footage as-is or cleaned it up using conventional tape-to-tape or film-to-tape transfers. The most time-consuming part of the project was animating the still photos. Starting with over 2000 vintage photos, I selected more than 600 and scanned them into Adobe Photoshop. Within Photoshop, I retouched the photos and placed separate elements such as subjects, foregrounds, and backgrounds on different layers. Then I brought the photos into Adobe After Effects for animation, and created extensive masks, zoomed in on certain elements in a photo, and made other elements go in and out of focus - all to create the effect of a 3D world out of 2D elements.

## Re-create the effects yourself

Many of the effects in *The Kid Stays in the Picture* are complex 3D composites enhanced by lighting and other special effects, but a large portion of the film is told through the simple movement of still photos. Although standard photo moves are considered traditional in most documentary filmmaking, the techniques in *The Kid Stays in the Picture* employed subtle shifts in depth, which helped bring the scenes to life while maintaining the integrity of the original image.

Based on a cell animation method using a multiplane camera, the technique is simple to create in principle. Dominic Amatore, creative director of Werkaround ([www.werkaround.com](http://www.werkaround.com)) in New York City, helped me pull together an explanation of the technique using a project similar to *The Kid Stays in the Picture*. It is outlined in the following steps and assumes basic familiarity with Photoshop and After Effects. The techniques can be used with other applications, however. You can download a copy of the source image used in this tutorial at the bottom of this page.

**Select photography.** This technique can work with any photograph, but it works best with images that have a distinct relationship between foreground and background elements. For instance, in the photo we used (see Figure 2), the guitarist in the foreground is much closer to the camera than the distant background, giving a broad depth of field to play with.

**Size and scale of the photo scan** also play an important role. A large, high-quality scan not only provides more detail, but also allows for more flexibility when you're scaling the full photo within the confines of a static film frame. In the case of *The Kid Stays in the Picture*, the images were scanned at a very high resolution because the final zoomed-in elements had to fill a 2K frame size for transfer to 35 mm film and had to allow for moving and scaling while avoiding any cropping of the image. For SD video output, you may need to scan at 3000 x 2000. In general, expect to scan images at two to four times your target output resolution.

**Make the cut.** Once you have established the foreground and background relationship and the animation has been planned, it's time to separate the elements. Open the scanned image in Photoshop and use the Path Tool to create an outline and select the figure in the foreground.

Apply a soft edge to the selection using the Feather setting in the Select menu. The appropriate degree of softness will vary from photo to photo, depending on the foreground-background relationship.

After you've made your selection, cut the foreground figure from the background layer and paste it into a new foreground layer. This leaves the background layer with a blank space where the figure used to be (see Figure 3).

**Create a clone.** The background layer must be filled in so the deleted area isn't revealed during animation. Turn off the foreground layer's visibility and select the background layer. Use Photoshop's Cloning Brush or Healing Brush, depending on your preference, and clone the background image into the edges of the blank area (see Figure 4).

Filling in the edges will let you later move the figure in After Effects without revealing the cut. Obviously, the more complex the background, the more complex and detailed

your cloning work must be. This is worth considering when you're choosing photography for your project.

Continue cloning until the entire background image is repaired, or until enough of the edges have been covered. Save the file. The image is ready to import into After Effects.

Build the composite. Launch After Effects and import the newly created Photoshop file as a composition, keeping the layer properties intact. Set the imported composition to the resolution required. For this sample project, a 720 x 486 D-1 NTSC comp will be fine. The Kid Stays in the Picture required much larger 2K film resolution comps.

Turn on the 3D properties for each layer and add a camera to the scene. At this point, it's helpful to view the composition in one of the perspective, or Camera, views. This helps you see how the layers are being moved in relation to one another (see Figure 5).

Move the figure, or foreground layer, in space and away from the background by opening the Position coordinates and sliding the cursor in the Z value (see Figure 6). This helps create the impression of distance between the layers, and gives the illusion of depth when the camera is animated later.

Animate the layers. Now that you have the layers in their proper places, you can animate their positions. In this sample scene, the figure will float slowly upward, as if jumping, and the background will slowly move downward. But keep things subtle; it's sometimes more effective for these moves to be more suggestive than realistic because they are intended to invoke the meaning and mood of the scene, rather than to re-create an actual event.

Set Position keyframes for each layer at the same points in time and set their values to move in opposite directions. Again, subtle shifts are usually more effective than sharp, fast movements.

Set the camera. Open the camera's properties. Animate the Zoom property so the camera slowly zooms into (or out of) the action. Set keyframes at the same points as the layer positions; i.e., the length of the comp (see Figure 7). Turn on the camera's depth of field and set the aperture and focus distance to a value that will create a mild blur effect on the background image as the camera zooms in (or out). The blur helps create the sense that the camera recognizes actual space between the layers. If desired, you can enhance the illusion by applying a blur effect to one or both of the layers.

Tweak and render. Preview the animation and adjust the settings until you get a result that you like, then render the comp.

### Beyond the basics

That's the basic technique we used in *The Kid Stays in the Picture's* multiplane photo moves. However, there were many additional tricks in even the simplest scenes of the film. We generated and animated highlight, midtone, and shadow mattes to achieve special lighting effects for each layer. We cut several elements in a photograph and used them as separate layers between a photo's foreground and background elements to create a deeper sense of depth and movement. We used light layers as well as filters and third-party plug-ins to take the look even further. Experimentation with the basic technique and your own additional methods should provide many interesting variations on what are traditionally static photo moves.

Because smaller, lower-resolution files generate substantially shorter rendering times, I created the concepts and sequences on After Effects at 72 dpi and Avid resolution 10:1s. Even with those shorter render times, conveying the mood and intent of scenes out of animated photographs was still an arduous process.

As in all films, we created scenes that did not make it into the final cut. We essentially created the film and discovered the visual story during the editing process, which made for extremely labor-intensive and time-consuming filmmaking.

#### Online and film-out

Once I finished the offline cut, Edgeworx in New York ([www.edgeworx.com](http://www.edgeworx.com)) began work on the HD version for the debut at the January 2002 Sundance Film Festival. Edgeworx assembled and polished the entire film in a digital format before outputting 1080i and 24p HD screening reels and supervising the creation of a film print. Edgeworx also transferred all of the archival footage to digital from myriad standard-definition formats, scanned thousands of photos, and created graphics, transitions, and animation.

The process involved repainting hundreds of photos in Photoshop 7 using the new Healing Brush and animating them in After Effects. Edgeworx also added creative twists to the film using the new 3D features of After Effects. For one photo of Evans in the bathroom, Edgeworx used After Effects's 3D features to zoom in tightly on his reflection, then slightly torqued the image so that it becomes distorted.

Edgeworx had less than two months to complete the entire process in time for the Sundance Film Festival. To meet the tight deadline, the company used a render farm of seven computers with Pinnacle Systems CineWave HD cards ([www.pinnaclesys.com](http://www.pinnaclesys.com)) running Adobe After Effects.

Because of the unique, production-intensive nature of the film, both Edgeworx and I agreed that it would have been prohibitively expensive (and next to impossible) to produce without the use of desktop production tools. Without those tools, the film would have cost much more to make - so much more that it probably wouldn't have been made at all.

The reaction to the project at the Sundance and Cannes Film Festivals has been gratifying. The audiences became completely immersed in the visuals and appeared to forget that the film comprised hundreds of stills. After Sundance, USA Films (now Focus Features) released *The Kid Stays in the Picture* to theaters and will soon release it on home video and DVD. That kind of success is fulfilling, but even more rewarding was the opportunity to break new creative ground using simple production techniques.

#### Download the Project File

Click [HERE](#) to download the .zip file

Jun Diaz, a New York-based film editor, worked with director Chris Smith on *American Movie* and *Home Movie*, and helped Whitney Dow and Marco Williams develop *Two Towns of Jasper*. He also works at the New York commercial house MacKenzie Cutler.