

Video Shadows

In 2004 I developed a video creation technique that yields clips of moving body characters. In response to assignment III, I will deconstruct the technical process used to create these forms and then contextualize the results in live performance cinema. I will also discuss the class assignment, software, and the future of my shadow creations.

I first began working in shadow during the theatrical production of *The Boy and the Rainbow* (2002). The majority of the performance was in shadow. The set was a 30' x 12' screen with slits for actors to move in front of or behind the screen. Over head projectors were used for lighting to create the shadows. These overheads were also used to project things like drawing on a transparency, bubbles, water, colorful gels, and silhouettes of small objects. Because I video recorded this production, it marks the beginning of my work in shadow video.

In 2004 after having worked as a video jockey at several events, I conceptually developed of a video representation for the emotional states of skin. My idea was to create a body mask and fill it or fill its surroundings or both with video. I soon developed a process using shadows and editing software to manifest my ideas of video characters. Since 2004 I have continually experimented with manipulating shadows and digital video.

The first step in this creation process is the set up of a shadow studio. This involves a large room with plenty of space in front and behind a large shadow screen. On one side of the screen I align a single focusable bright white light source and on the other side, centered and at the same height, a 3 chip miniDV camera. I then define the playing area with tape on the side of the light source. It is very important that all other light be eliminated from the shadow studio.

The goal is to record clean lines with even, high contrast. The camera is set on a tripod in a static position. The frame of the camera should be inside the box of light being projected onto the screen. This cropped area of the camera's composition should correspond to the marked play area.

I selected professional dancers to perform in shadow. We experimented with a variety of themes including emotional states like afraid, devastated, excited, overjoyed, and ideas like a city street and desert landscape. We also worked with a variety of audio sources while recording to support connectivity between performers and to support movement concepts and developments.

After recording the shadows and dumping them to Vegas Video, I apply a sequence of effects. The first step is desaturating the video of color, then, inverting the video so the black is white and white is black. Next, I adjust the brightness and contrast to gain a solid even white and black image. This usually means increasing the contrast of the video. I am left with a mask of body movement in which either the black or white or both can be replaced with images,

textures, colors or moving video.

By using chroma keying I make either the black or white part of the video invisible. When applying chroma keying in Vegas Video I make sure to find the perfect balance of high and low thresholds and to blur the edges slightly to increase the quality of the effect. I now can fill in the body of the dancer with any moving image source by simply layering this mask above the video track. At this point I can render out clips of the moving bodies containing moving images and begin to layer them onto one another by using a similar process of chroma keying. I always make sure to adjust my render setting to minimize digital artifacting. Because of the nature of the movement and the intended exhibition, I usually render with progressive scan rather than interlacing frames. However rendering, layering, and re-rendering risks significantly reducing the video quality.

Because the performance assignment included a duration restriction of 5 minutes, I did not approach it as I would an average length VJ set, which from my experience is approximately 1 hour. For this performance I planned every transition and practiced repeatedly. However, this preparation did not fully take into consideration the time restriction and classroom context for the set up process. I got off cue early on in the performance because I needed to adjust audio levels, which resulted in improving a portion of the performance.

For this performance I challenged myself to use Resolume as a live cinema tool. This was my first attempt performing with this software. In my opinion Resolume does not function well as a live cinema application. It works great for video jockeying, but not for layering a video cue list. If I were to do this performance again I would use patch-programming software like Isadora or simply create a single channel video in Vegas. Trying to manipulate Resolume into running tech for live cinema is a difficult task for the goal I was trying to meet.

In the future I intend to continue creating with video shadows. I have experimented with the puppeting of the video dancers. Next I want to extend the interfacing beyond the laptop. With a simply mixing board or wireless sensing I could better control these shadow dancers. I am also interesting in using a live camera to read shadows that then signal a video projection output. This would allow the performer to control the video. I look forward to this and much more in the near future of live cinema.