Chris Kuhn Flow Visualization ARTS 4097 Clouds #1 3-1-2006

Clouds Above the Desert

For this project I decided to use an image I took while visiting Sabino Canyon in Coronado National Forest, which is just northeast of Tucson, Arizona in the Sonoran Desert. The beautiful skyline has astounded me around this area since I was young. The arid climate produces very interesting clouds (as well as sunsets & lighting), especially during the monsoon season, which usually begins around August. This image was taken on a hike that I like to take through the canyon, which is lush with desert life including a wide variety of cacti, reptiles, and birds (most notably the saguaro cactus). The clouds on this specific day (August 11, 2004) were amazing and the sunset that followed was breathtaking. Although I got great images of the sunset, I felt this one showed the most dynamic cloud cover. It was taken early in the hike, but it was getting later in the afternoon (around 5-6pm) so the light was almost perfect for photographing the landscape.

I entered the Canyon on the main trail, which heads northeast into the desert. This picture was taken before I actually went into the canyon, facing northwest. There were some lingering cumulus clouds throughout the day, but for the most part it was clear and sunny. Around 3 to 4pm the clouds moved in and lingered close to the horizon, looking astounding above the cactus-scattered landscape. The clouds were full of moisture because it started to rain towards the end of my hike around 7pm. At the time of this photograph there was 21% humidity and the wind was blowing west at 6.9 mph. The clouds seem to be layered throughout the atmosphere and most look like they are cumulus or altocumulus. According to the scew-t plot from the day the cloud bottoms were at around 4000 ft. The atmosphere was barely unstable on that day.

I used my Cannon Digital Rebel for this picture with the standard 18-55mm lens because it was before I got a nicer wide-angle lens. The focal length was almost as far out as it would go at 52 mm. I usually manually set my camera, but I didn't for this one because the automatic settings worked fine for this image. The aperture was at f/10, it could have been set higher, but then the landscape below the horizon would be out of focus and I wanted to include that in the image. The shutter speed was at 1/200 sec, which made both the clouds and desert very crisp and sharp.

While scientific data about the clouds and atmosphere can be taken from this photograph, the intent was fully for artistic purposes. It was taken while I was working on a photography project entitled *Majesty of the Desert*. The idea behind this series of images is to convey the thriving desert life that is often mistaken for arid nothingness. The colors and shapes of the diverse plant life was my original focus, but it soon expanded to the entire landscape as I began to see the beauty in the rock forms of the Tucson valley. The awe-taking skies also influenced this body of work and led to such images as this one.