

Mike Soucek

Flow Visualization

April 6<sup>th</sup> 2013

### Team Second Image Report

The purpose of this image was to satisfy the second team shoot requirement. The intention of the image was to completely visualize smoke and its fluid and flow properties. The image was realized with the assistance of two non-flow students, my roommates Colin Greer and Siobhan Sullivan. The image was constructed through a series of three images, edited into one frame. Further, beyond the academic goal of the image, I had a personal goal to further my understanding and skills of Adobe Photoshop, specifically in colorization and color isolation.

The apparatus used to create the image was simple, for the image consists of incense burning, focusing on the smoke emitted when light air pressure was introduced. The smoke flow was natural, and there was no intervention in the actual image, instead there was a light flow of air introduced in order to excite the smoke emission more. The incense stick was of standard length, and was burned for the first time for this image. The flow of the smoke generally went upwards and left, primarily because the smoke was somewhat avoiding the right side of the frame, where Colin was standing, moving perhaps because of his breath.

The setting of the image was my bathroom, for ventilation purposes, against a black matted piece of poster board. The flow was again, the smoke emission of a stick of incense. The image consists of three images taken at different moments in the burning process. The sticks, poster board, and lighter used were all acquired

from Wal Mart. Full lighting was used; so six sixty-watt overhead bulbs burned about ten feet above the frame. No flash was used, for the available external light sources explained were entirely sufficient.

The field of view is approximately 12 inches by 11 inches, give or take on account of slight camera movements to capture the whole of the smoke flow. The tripod setup placed the camera at 23 inches away from the source of the smoke, or the end of the incense stick. The tripod was stationed at the edge of the counter on which the stick sat, so there could not have been any further later or other movements to alter the image. An 18-55mm focal length zoom lens was used, set at half zoom extension (about 29mm), and set at a focal point in the center of the smoke, about two or three inches above the stick. A Canon EOS Rebel T3 digital camera was used and the final image dimensions were 11040 × 1440 in pixels. The image was created with controlled exposure, with an aperture of f4.5, 1/160s exposure time.

In conclusion, I like the image as a whole, but do not find it to be my favorite image from this course. I wish that I had made a few adjustments to yield more smoke, or even higher contrast in the pre-edited images. I love the final product, but after seeing the other images produced by students in the course I feel that I significantly under-achieved. The intent to become more skilled at Photoshop was greatly realized for I now have a very strong grasp on several new techniques that I didn't know were even possible.