Combustion

Flow Visualization

October 2007

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Fire releases energy at varies intensities in the form of light. This photograph reveals this phenomenon specifically demonstrated with color and the melting of wax surrounding a wax candle. Our group discussed at length how we wanted to explore combustion and we collaborated by sharing materials, ideas and inspiration.

Lighting a regular wax candle outside and then igniting that flame by spraying a can of charcoal finish spray set this experiment in motion. Using safety goggles and thick gloves, one person sprayed the candle while others stood perpendicular to the fire flow and shot photographs. The purpose for working with fire was to express the flow phenomenon of combustion. The sporadic nature of the experiment allowed for unpredictable, chaotic and produced visually appealing images.

The fire was the only source of light in this image. It was shot at night using a Nikon Digital SLR D50 with one 28 mm to 100 lens. The exposure was set at 1/320 of a second and had an aperture of f-5.6. This was taken about 8 feet away and above the actual fire at 55 mm zoom. The field of view is roughly one and half feet wide. The image was not cropped or manipulated in anyway. The original size of the image is approximately 2000 by 3000 pixels.

The way the eye is directed in this image is its strongest element in my opinion. The diagonal of the fire allows the eye to enter and exit the frame easily. The color difference from where the fire is ignited to the darker orange flow at the end of the stream is attractive because it expresses the temperature and the turbulence of fire. I would improve this image by practicing the exposure of fire so that the background [the street] had more texture. This would express to the viewer the context in which the experiment took place. Although I do like the way the candle melts around the ground and creates a metallic outline around the fire visually establishing the heat possessed by the fire. I also liked the simplicity in the set up the experiment (not including safety) because it allowed for more photographic opportunity with very satisfying results. Combustion proved to provide many images, unlimited possibilities for experimentation and opportunities to test fire further.