

Team Project 2

Smokey Dreams



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PURPOSE

The purpose of this assignment was to capture an interesting image of fluid dynamics accurately portraying a fluid dynamics phenomenon. The artist set out to capture an image originally detailed in a dream. The dream showed a drawn image of a burning cigarette, so that is the focus of this project. As with any artistic endeavor, a meaning is supposed to be captured and presented to the viewer for interpretation.

FLUID DYNAMICS

The smoke coming out of the cigarette is warm and is being heated by the burning ember of the cigarette. As the smoke immediately issues from the cigarette, a laminar flow is observed because the smoke is not yet moving as quickly as it will. As the smoke rises higher, it speeds up, reaching a level where the flow becomes turbulent, causing it to spread out as seen in the higher portion of the image¹.

VISUALIZATION TECHNIQUE USED

A Sony Cyber-Shot DSC-W50 camera was used. Focal length, exposure, depth of field and ISO sensitivity were determined by the camera at the time the photograph was taken; the exact information cannot be retrieved with Gimp photo editing software. The photo was taken in macro mode in order to attain a closer zoom. A high exposure time was used, accounting for the slightly blurry feel of the image. This both allowed the “dreamlike” quality while also being used to achieve a suitable night shot.

METHODS USED

A cigarette measuring about two inches in length was lit and continually smoked and photographed until all that remained was the filter. This shot was taken when the cigarette was approximately one inch in length (including the filter). The image was taken at night, accounting for the dark background; the cigarette was held up against the sky when it was photographed. Dual light sources from the right and left of the photographer at the time the image was taken were used.

Original image:

Not shown because the image is currently on a virusey computer that will not allow extraction of images. This problem should be fixed within the week, and the artist will forward the original image on.

ARTISTIC ELEMENTS

This project was inspired by a dream that the artist had. In said dream, the artist became “lucid,” that is aware of his dream-state. This inspired an exploration into the momentarily accessible subconscious of the artist, who used the opportunity to peruse a notebook typically located in the artist’s waking pocket, and in this instance in the dream pocket as well. When the artist flipped through the notebook, he saw a number of drawings done in the artists’ own hand including a lit cigarette with smoke floating upwards. In an effort to understand why this vision appeared in the artist’s subconscious state, the artist (upon awaking) drew a number of images similar to this one, wrote several pieces on the matter, and ultimately turned to photograph it. As with most dreams, the vividness of the dream disappeared upon waking. While the artist had intense detail and depth in the dream, in recalling it only the basic idea of the image remained. That is why the image has a slightly blurred and surreal effect; to demonstrate the lens that the waking viewer examines dreams from.

SOURCES

- ¹ "Q & A: Cigar Smoke and Fluid Dynamics | Department of Physics | University of Illinois at Urbana-Champaign." *Physics Van | Department of Physics | University of Illinois at Urbana-Champaign*. Web. 11 Apr. 2011.
<<http://van.physics.illinois.edu/qa/listing.php?id=2179>>.