HAW/CONTEMPORARY - PRESS RELEASE

Stuart Allen - *Constructive Interference*

May 8 - June 20, 2015
Opening Reception - Friday, May 8, 5- 9 PM

Haw Contemporary is pleased to present *Constructive Interference,* a solo exhibition by Texas based artist Stuart Allen.

In this series of photographs Allen exploits an optical phenomenon that occurs when visible light is distorted by the thin film membrane of a soap bubble. Soap bubbles deconstruct daylight, amplifying some wavelengths while canceling others out, creating an array of color that speaks the complexity and mutability of what we see as 'white' light.

Light waves, like ocean waves, have peaks and valleys. All waves have a curious property: if two waves combine, the waves can meet each other crest-to-crest, adding and reinforcing the effect of each other, or they can meet crest-to-trough, canceling each other out so that they have no effect. When they meet crest-to-trough, for every "up" vibration in one wave, there is a corresponding "down" vibration in the other wave. This combination of equal ups and downs causes complete cancellation or interference. Interference is responsible for the pearly luster of an abalone shell, the beautiful colors in some bird feathers and insect wings - and for the color of bubbles.

If the crests of two or more waves are in step, or almost in step, they can combine into a larger or more intense effect. This is called Constructive Interference. If the crest of one wave meets the valley of another they cancel each other out. When two light waves cancel each other, the result is darkness and it is called Destructive Interference.

A bubble's colors are caused by a phenomenon known as Thin-film Interference. When light bounces off of a soap film, there are reflections from both the front (outside) and back (inside) of the film. Interactions between these reflections, constructive and destructive interference, cause the colors we see. The specific colors are directly related to the film thickness - thicker bubbles will display blues and greens, thinner bubbles, reds and yellows. Due to the influence of gravity, a soap bubble's walls are thinnest at the top and thickest at the bottom. This variation results in the tremendous variety of color we see.

HAW/CONTEMPORARY - PRESS RELEASE

Within the playful form of a soap bubble, daylight is deconstructed and re-assembled. As a bubble is tossed and turned by the wind, its shape and thickness are constantly changing, creating ephemeral and unpredictable patterns of color. The bubbles, and the photographs which record their brief existence, become a lens through which we witness the complexity of daylight.

Stuart Allen is a visual artist whose work deals with fundamental elements of perception such as light, time, gravity and space. His photographs, sculpture and installation have been shown throughout the U.S. and abroad and his work is found in many private and public collections.

Allen studied architecture at Kansas University and graduated from the photography and video department of the Kansas City Art Institute in 1993. He lives and works in San Antonio, Texas.

Gallery Hours: 9-5 Tuesday through Friday, 12-5 Saturday

Press Contact
Emily Eddins
816.842.5877
emily@hawcontemporary.com