Phantom Waves (2021) Chromaluxe Dye Sublimation, 40"W x 30"H George Legrady

"Phantom Waves" is a series of images consisting of self-generating data (grey tone pixel values) through frequency modulation. The intent of the series has been to explore to what degree mathematical modeling can bring about coherent visual results. Standard black and white images consist of 256 shades of grey tone values to represent an image. In this series, a trigonometric function calculates a grey tone value for each pixel's location in the two-dimensional image space. If the value of the calculated outcome is beyond 256 then the value is subtracted from 256 and wrapped around numerically to make the result fit within the 256 range. This results in subtle complex patterns that can be imagined as harmonics as when a guitar string is touched slightly and plucked resulting in a different frequency note. Variations in parameter values result in different image compositions.













Mid-Point Synthesis

Cascade

Triangular Demarcation

Cascade Jaggy