Chapter 5
Depicting the Nature of Nature:
A Contemporary Approach to Developing Aesthetically–Driven Visual Data Derived From Primary Sources

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ABSTRACT

The term "visual data" is often connected with strategies related to developing graphs or other types of quantitative visual data arrays. Visual data provide quantitative statistical information about our natural and constructed worlds. There is great power in the graphical visual data; they can provide portraits of our world that might escape our notice. This chapter focuses on portraying certain qualitative aspects of visual data that allow for a sense of the deeper nature (essence) of selected data sets. This approach can be termed aesthetically enhanced visual data. The data drive image making, while emphasis is given to aesthetic concerns. The goal is to identify and portray the nature of the nature of the aesthetic visual data. In this chapter the artist-author presents aesthetic visual data focused on describing certain aspects of the world. Artworks created through the aesthetic data visualization are presented along with clarifying notations.

INTRODUCTION

A Question

We begin with a question. *How might one use artistic principles and practices to effectively develop original, contemporary aesthetic visualizations that accurately represent, clarify, and interpret the nature of the nature of specific data-driven subjects/topics?*

This essay is my attempt to provide a cogent response to this question. To do so I focus on my hybrid digital arts studio practice. This explanation is undergirded by examples of original aesthetic data visualizations from my fine art series entitled *Solid Geometry.*

About *the nature of nature.* This is, of course, not a new phrase. The choice to use these words indicates intent to look into, and more clearly defining, the deeper qualities – the inner architecture – of the subject in focus. This is not merely semantic, as the primary means of illuminating this discussion is, in the end, visual art. Figure 1 is one of more than 200 in this *Virtual Garden* series. The theme of this series focused on developing a synthetic group of digital flora and fauna for a hypothetical virtual space. It was developed from pencil and marker sketches, later scanned, using a combination of fractal and raster applications. The colors are derived from sampling digital photographs of actual plants and flowers in our gardens..

Figure 1. John Antoine Labadie, Virtual Garden XXIII
(© 2016, J. A. Labadie)
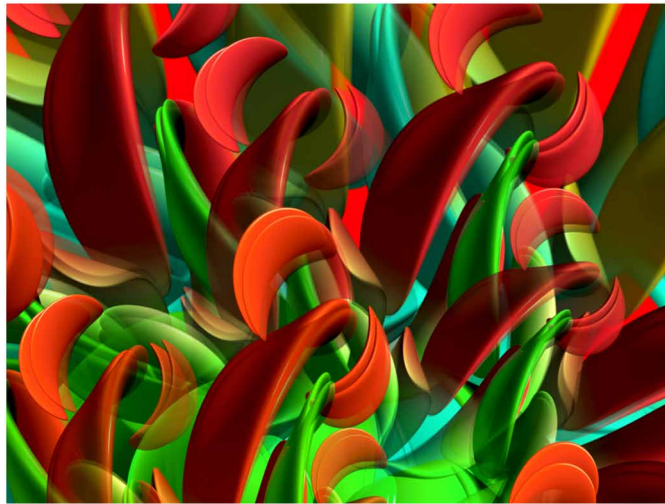
BACKGROUND INFORMATION

As a visual artist, former industrial engineer, scientific illustrator, computer studio system administrator, and long-term university digital arts professor I believe that a comprehensive response to the question under consideration will involve a multi-disciplinary approach, a series of potentially replicable steps focused on well defined goals, and the skilled use of traditional and digital tools. Simply put, a digital blending of quantitative and qualitative visualization methodologies has the potential to successfully move us to a place not possible with either approach alone.

Even so, although it seems that a blending of modes will be required, this says little about how such a process would be defined, launched, employed, tested, developed, or evaluated. Attempting to understand how all this works is the raison d'être for this essay.

In short, if there is any significant value in the work described herein it will be in the useful discussion of how this process might also be accomplished by others. The ability to replicate the experiment is a requirement in science, and in my humble opinion, this is also so in the hybrid field of artistic visualization into which my creative work falls.

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