## Physics Integration Lesson 12 – The Nature of the Artistic Medium

S. Gollmer (2020)

An interesting question in philosophy asks "What is the difference between art and science?" Possible answers are: Art creates while science discovers. Art explores an infinity of ideas, but science exposes the one thing that is. Art pushes the limits of design and science places limits on what is possible. However, all these answers assume that art and science are on the opposite ends of a scale with engineering in between. It is true that engineering embraces the creativity of design within the limits of what is physically possible and practical, but is science a sterile field of uncovering what already is? Is science the exploration of a soulless machine that will eventually run down at the heat death of the universe?

At the time of Newton, a perspective was established that the universe was a giant clockwork, ticking off the days, months and years since its beginning. Darwin reduced the mystery of life to survival of the fittest and today the human mind is equated to a complex computer with sophisticated software, which one day will be replaced and exceeded by a machine. Dawkins aptly summarizes this perspective with the statement, "Biology is the study of complicated things that give the appearance of having been designed for a purpose." Design in the universe is just an illusion of purposeless processes iterated ad infinitum.

As Christians, we should have a dramatically different view of science and the universe. Since the Creator is omniscient and omnipotent, He is an artist that not only created stars, planets, the Earth, plants, animals and humans, but also designed the medium by which they operate. When playing an instrument, the artist has freedom to select the melody, harmony, tempo and dynamics of the music. However, the musician also has freedom to select the instrument that is played, which has its own unique sound. Why should we think any less of the laws of physics that determine the means by which the music is generated, transmitted and experienced?

- 1. Some early Greek philosophers, called atomists, believed the universe consisted of indivisible, unchangeable, eternal particles. As a result, the universe is an eternal entity, which does not require an explanation for its beginning or end. In this context Plato describes the demiurge as a craftsman, who is responsible for shaping and maintaining the universe. Is this view of the universe compatible with the Creator described in the Bible? Are there any implications to us if the universe is eternal? Explain.
- 2. Although an artist can express himself/herself freely on a canvas, that expression is affected by the chosen medium: watercolor, acrylic, oil and charcoal. The Intelligent Design movement identifies numerous 'fine-tuned' parameters in the universe that, if changed, would make life in the universe impossible. Does this mean that God had to make the universe this way or is it only a limitation of the medium through which God chose to express His creativity? Explain.

<sup>&</sup>lt;sup>1</sup> From page 1 of *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe without Design*, by Richard Dawkins, 1987, New York: W.W. Norton & Company, Inc.