Background and Goals

Creative artists and scientists change how we view the world. The process by which inner experiences are articulated in response to external stimuli is similar in both groups, but is expressed in different forms. When a painter successfully introduces a new style, or a scientist makes a revolutionary discovery, our perception of reality evolves. J.M.W. Turner and John Constable were important in introducing a romantic view of nature; Charles Darwin changed how humans view their place in nature. Darwin made careful observations of living organisms, fossils, and their distribution around the world. From his observations, experimentation, and extensive reading, he developed the theory of evolution. Turner studied light and experimented with it extensively in his landscapes, producing paintings that would influence a generation of impressionists.

In this course we will examine the process of creation and the factors that can set it in motion. In addition to studying and discussing readings and videos on these subjects, the class will travel to museums and exhibits, and create presentations in various media to demonstrate what you have learned. The objectives of these studies will be the following:

1) **Learn about the works of creative artists and scientists who have changed how we view the world.** We will discuss why their works are considered seminal contributions in their respective fields.

2) **Discover how the life and times of each of these people may have set the stage for the creative process to come to fruition.** We will study the historical settings of individual artists and scientists to investigate the role of factors such as family, socioeconomic status, patrons, politics, and gender roles.

3) **Understand how creativity must be seen in the context of a given time and place.** A truly creative person produces some variation in the culture inherited by subsequent generations, but time often must pass before a new idea or art form is recognized as significant. We will discuss how different societies have "selected" what is incorporated into new paradigms.

Structure of the course

This seminar is designed to be an interdisciplinary investigation of the lives and works of selected scientists and visual artists, as well as general trends in art and science of various periods. The material will be presented in chronological order, and often will compare artists and scientists who were contemporaries.