## ISAMA The International Society of the Arts, Mathematics, and Architecture

BRIDGES Mathematical Connections in Art, Music, and Science

## An Interdisciplinary Study of an Archetype: Across Cultures and Disciplines

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In order to do an interdisciplinary study, it is necessary to find a subject covered in multiple disciplines. In this presentation, we will explain how the group was formed, how we chose the topic, and how we worked together. The result of our work is a CD which will be shown along with several movie clips.

An interdisciplinary group of artists and educators in the sciences, humanities, and the arts – now called the Spiral Group – was awarded a grant by Columbia College, Chicago to study an archetype as it manifests itself across cultures and disciplines. The group chose not to spiral as an archetype because the members found it to be the pattern often repeated in the arts and sciences. The group found that "spiral" appears as an indigenous form in nature, science, and math; it is also seen as a symbolic and archetypal form in the arts. The group then began the study with an exploration of the mathematical principles/properties of the spiral. The Spiral study demonstrated that there is a profound synchronization between the arts and sciences. The spiral, deeply rooted in the construct of the universe, is often used to suggest growth, harmony, and rhythm in poetry, narratives, film, and art. The study demonstrated how the spiral is not only used across artistic disciplines but across cultures as well.