

The use of Voronoi Structural System as an artistic Approach in Drawing & Painting

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Abstract

Art studying is connected with the scientific theories such as Mathematics and Geometry in, under the shadow of new scientific discoveries and technological progress, appeared the computational geometry that is specialized in studying algorithms that can be represented geometrically, one of the is the voronoi plans. Voronoi is considered as one of the Computational inventions and applications in Geometry. As it represents a main, necessary structure that is used to divide a large area into various small sections, through connecting a group of dots. These sections are called the Voronoi's cells. Voronoi's diagrams are used in many scientific, medical, and technical fields in general, as well as art field applications, the practical or the theoretical ones such as architecture and art for their content of structures with building and aesthetical systems.

The research aims to study the Voronoi's structural systems, and utilizing them in representing contemporary artistic works that match with the thinking and artistic progress in the field of contemporary drawing and painting.

The research methodology is;

Descriptive methodology within the theoretical frame, and experimental within the application frame.

The main topics of this research are defined on studying the following:

Voronoi's Structural Systems and their various applications, Experimental Applications within the researcher's intellectual and formative point of view.

The main results of the study are summed up into that;

Voronoi's Structural Systems can be stimulants to the creative artist to produce contemporary painting. Voronoi application can promotes artist to produce conceptual ideas in the field of drawing and painting.

The researcher recommend to pay attention to studying the voronoi and computational geometry and their vrious applications and benefit by them in the field of contemporary painting.