
Fractals and Artificial Intelligence

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Abstract

I'm Juan Carlos Guarneros, a Mexican digital artist with more than 20 years of experience in fractal art. Throughout my career, I have explored the artistic possibilities of fractal algorithms to create abstract works that invite the viewer to be surprised by fantastic worlds that have organic references, and to find recognizable figures in them, as if they were observing clouds. This interactive aspect of my compositions allows each person to discover something different, connecting in a unique way with the work. In addition, I seek for my art to inspire reflection on the natural world and how we perceive it, with the intention that viewers carry this sensibility to the outside world after visiting an exhibition. Recently, the use of artificial intelligence tools has allowed me to evolve my artistic approach toward new frontiers. In 2009, I initiated the "Fractal Diarium" project, a visual diary in which I develop a daily digital work that represents a special or significant moment in my life which I share to connect with the meaningful personal experiences of others.

In my work with fractals, much of the process has been solitary, interacting remotely with mathematicians and other fractal artists from around the world, through forums and social networks, where I have generously received advice and shared work and formulas for modifications (tweaks). While this asynchronous interaction has been valuable, the advent of AI has completely transformed the immediacy of my creative process. AI, especially DALL·E, has become a creative companion that allows me to receive real-time feedback on my ideas, opening me up to new perspectives and allowing me to go beyond my own limitations. This change has been revolutionary, as AI offers not only a technical capacity to generate images, but also access to a vast repository of historical and bibliographical knowledge that enriches my creative process.

My digital works, although they have shifted from being mostly abstract to figurative, still invite the viewer to wonder and reflect.

Recently, I created a fractal animation that closes the exhibition "Ángeles. Las huestes celestiales en la Tierra" at the Museo Nacional de Arte (MUNAL). This piece is a contemporary expression of celestial iconography, commissioned to close a journey through five centuries of angelic iconography, exploring the symbolism and representation of angels in both Europe and the New World, which demonstrates the recognition that my work has achieved in my country.

My proposal for the Computer Art Congress contemplates two possible forms of participation. First, I would present a selection of my work generated with artificial intelligence, which could be exhibited in digital format, depending on what the organizers of the Congress consider. Secondly, I would like to join the discussion on the ethical and creative aspects of

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the use of AI in artistic creation. A central theme I propose to explore is how interaction with AI offers the possibility of having a creative partner who can provide opinions and reflections on concepts, projects, and ethical issues, transforming the creative process in an unprecedented way.

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