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## The Fractal Artist

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## The Fractal Artist

**T**he twenty-first century may come to be known as the Age of Complexity. It is an era that is attempting to grapple with irregularity, metamorphic forms and changing notions about order and disorder. Whether they be scientists, sociologists or artists, people are addressing the existence of the irregular, the fluid, the irrational and the “inbetween”—ideas that are viewed as the building blocks of a new paradigm for creativity in art.

The artists presented in this gallery are part of an international group working with fractal art. Fractal art is an artistic practice based in concepts from fractal geometry, chaos theory and complexity theory. Each artist shown here pursues his or her individual artistic expression and style and yet remains linked to the others by an interest in exploring complex forms, themes of self-similarity, scaling, order and disorder, and the relationship of the microcosmos to the macrocosmos.

Fractal artists project a fractal imagination of the world through their work. It is a world in which space has become fractal—i.e. imploded, dense, hyperactive, interconnected. The fractal artist declares that space can no longer be considered minimal, expressionistic or conceptual. Instead, contemporary fractal artists seek to reflect the condition of space in their time as they perceive it, with its fractal dimensions and qualities. For the fractal artist, the physical and psychological landscape of today has nothing to do with the Cartesian-Corbusien concept of space that has dominated contemporary architecture. The fractal artist sees the utopianism of the Euclidean form as a vestige of Cartesian philosophies formulated around the concepts of measurability and predictability. The fractal artist believes that the Cartesian model excludes the irregularity and dynamics of reality, as observed in the physical cosmos as well as in human nature.

The fractal artist projects the artist’s vision of the complex contemporary city’s architecture of overlain conduits and labyrinthian networks, of nature’s forms now reflected in the sprawling cityscape that threatens to obliterate natural space. Paradoxically, the fractal spaces of nature are being replaced by the fractal spaces of our hermetic, dynamic societies.

New York artist Edward Berko was one of the first American artists to begin working with fractal painting. Berko’s work has been exhibited in Europe and the United States in both solo and group exhibitions. Painting in oil on wood, Berko documents and then transposes the fractality of form that he observes in the world around him. As an explanation of his work, he writes: “Nature makes fractals in all its processes: the formation of a forest, the paint which peels off a wall, the cracks in the road, the clouds in the sky, the wood which ages. In man also. This is why I create the fractal-made-form in art.” In 1994 he published a book of his thoughts on art and fractality [1].

The paintings of Jean-Paul Agosti are metaphors for a vision of the garden as an expression of competing forces of order and disorder. Agosti was perhaps the first French painter to explore fractal form, befriending mathematician Benoit Mandelbrot in the early 1980s. His paintings are a series of imaginary gardens titled after the gods of Greek mythology. Lyrical and yet formal, Agosti’s paintings convey an almost musical visuality as a testament to the artistic possibilities of fractality. He has exhibited throughout Europe, including in a large solo museum exhibition at the Musée de Sens in 1996 and most recently at the Musée de l’Hospice Saint Roch.

Artist Carlos Ginzburg was the first fractal artist I met in Europe when I moved to Paris in the late 1980s. Ginzburg, Edward Berko and I began meeting regularly to discuss our interest in the ideas of the new geometry. Our early group, which we called *le noyau* (the seed), played a role in the emergence of an interest in fractal art in contemporary art [2].

Carlos Ginzburg began working with the idea of fractals in the 1970s. In the 1980s, he began to talk about fractals to the artists and thinkers he met: Cuban writer Severo Sarduy, art critic Pierre Restany and aesthetician Jean-Claude Chirollet. Ginzburg believes that his pieces function as “fractal hybrids,” intermingling his perception of our culture with the tetralogy of complexity of sociologist Edgar Morin: order—disorder—interactions—(fractal) self-organizations. Ginzburg is the creator of the *Fractalman* image, a figure of Mandelbrot sets replicating into infinity. Ginzburg’s image is a metaphor for the hermetic, dynamic fractality of human identity. With *Fractalman*, we can project the idea that the human being is the ultimate fractal subject, destined to exist in an oscillating and contradictory state of free will and systemic limitations.

Susan Derges is a British photographer working in the Devon countryside. She captures her images by exposing natural phenomena, such as a running stream, directly to the photographic paper using moonlight. In this way she records the images of a fractal world: the stream, the branches that overhang the water, the shadows of the trees, etc. Derges attempts to capture worlds in transition that use the language of fractality of form. Her images are projections of turbulence, disorder and order, instability and bifurcating structures; in short, her works form themselves from the vocabulary of chaos and complexity.

Lebanese painter Nabil Nahas, currently working in New York, consciously decided to bring a fractal perspective to his work when, walking along the beach after a storm, he observed the disordered order of the randomly deposited starfish upon the sand. He felt a natural affiliation with the idea of fractals because his work is concerned with the idea of order emerging from disorder. Lush and vibrant, Nahas’s works are reveries, contemplations of formed formlessness that present themselves for our reflection. His paintings are places where the microcosmos and the macrocosmos exist in labyrinthian self-containment.

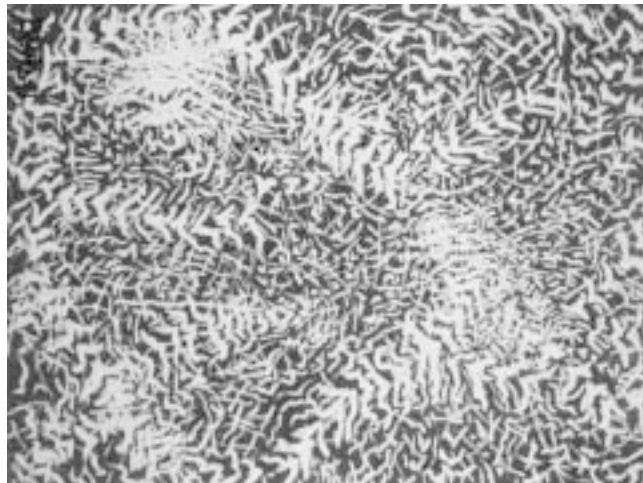
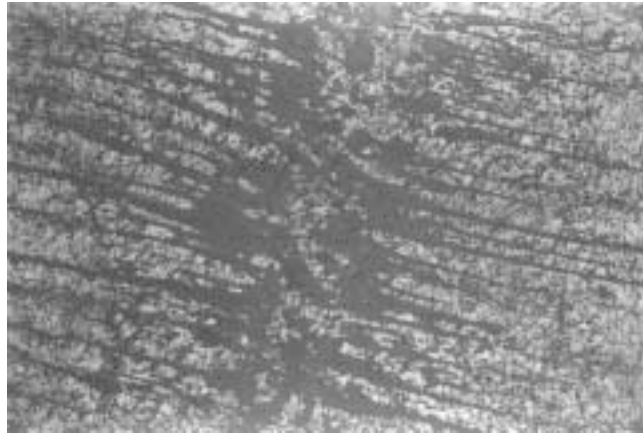
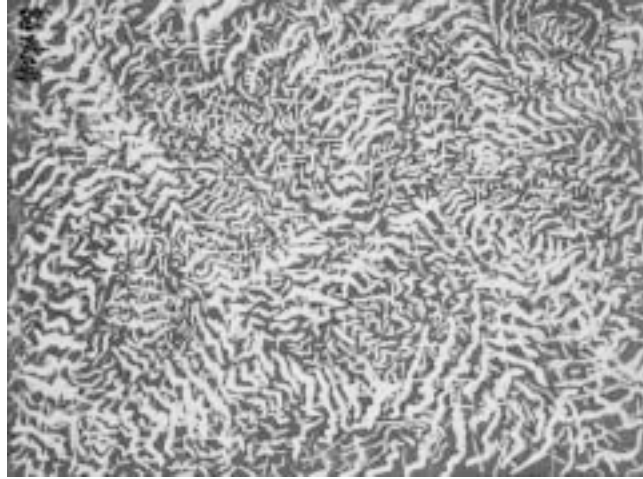
U.S. painter Jim Long became interested in fractality of form when he decided to explore a new kind of complex and mathematical grid for his work. He was investigating the possibility of making an infinitely thin plane of paint upon the canvas. One night he left some solution to dry in a bowl. In the morning he noticed mysterious forms, cartoon-like and ghostly, which had formed spontaneously. Some students visiting his studio remarked “Oh, you’re growing fractals!” Long’s work connects the fractal subject with hyper-real pigments and plays with the tension between graphic elements and painterliness, imparting a purely American irreverence to his work.

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## References and Notes

1. Edward Berko, *Sur Le Mur* (On the Wall) (Paris: Les Editions de La Différence, 1994).
2. In 1993, I published a book as a poetic manifesto called *Fractalis: La complexité fractale dans l'art* (Paris: Les éditions de la différence, 1993). My second book on fractal art is *L'Art Fractal: L'émergence de la complexité fractale dans l'art* (Paris: Les Editions de La Différence, 2000). In the fall of 1999, I presented three of the fractal artists presented here (Berko, Ginzburg and Long) at an art fair at the Louvre called Art Paris.

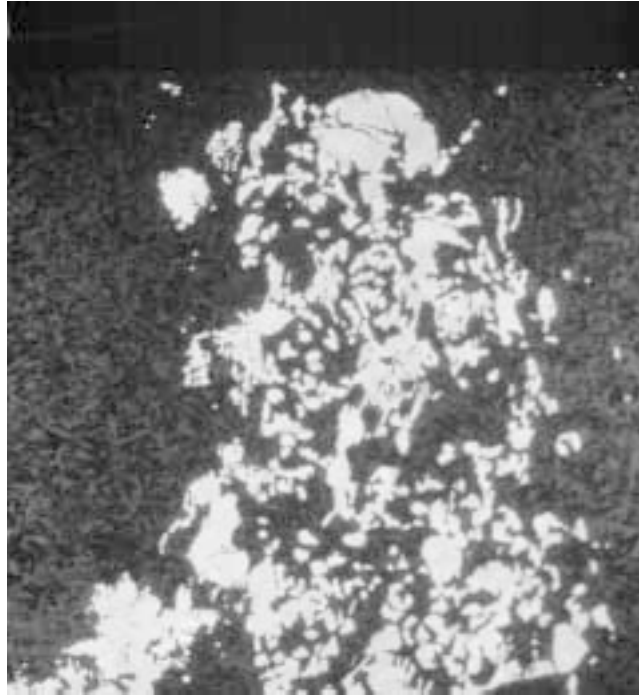
**EDWARD BERKO**



(top) *Cadmium Orange*, oil on wood, 48 × 36 in, 1996. This work is from the artist's *Fractal Series* (1995–1996). During this period, the artist began adding increasing amounts of detail in his works, emphasizing the quality of macrocosmos equating to microcosmos (i.e. the dimension of zooming in from any given scale) on the surface. (© Edward Berko. Photo: Bill Orcutt.)

(middle) *L'ombre de la nuit*, from the artist's *Fractal Series*, oil on wood, 72 × 36 in, 1999. *L'ombre de la nuit* (Night Shadow) is part of the larger works that Berko began doing in the mid-1990s. The pigments suggest shadows and traces that correspond to a fractal presence in nature and human mind. (© Edward Berko. Photo: Bill Orcutt.)

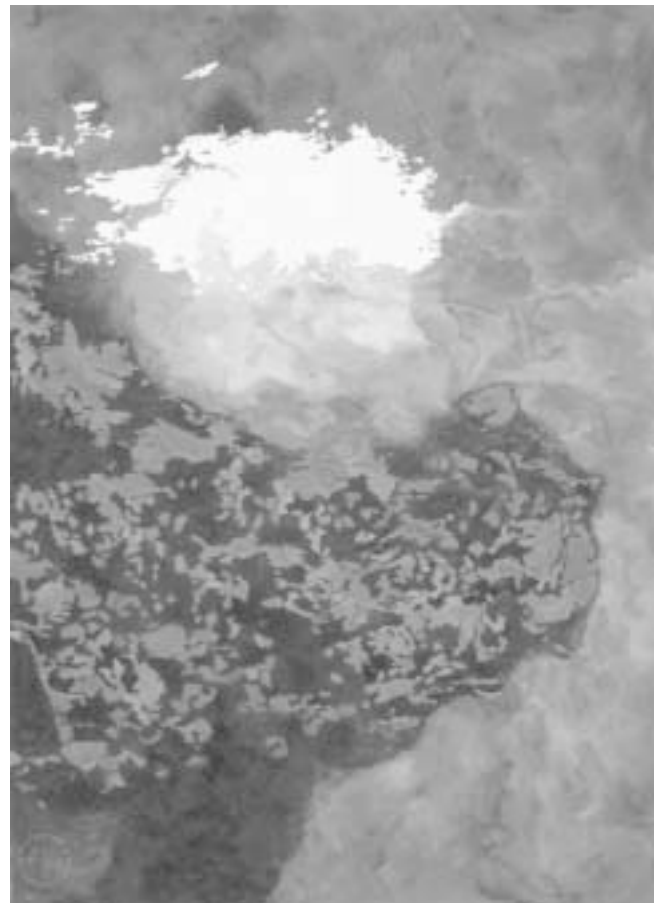
(bottom) *Yellow Spring*, from the artist's *Fractal Series*, oil on wood, 48 × 36 in, 1991. This work conveys the artist's joyousness and celebration of the forms of "disordered order" he finds in the world. The coming of spring is a cause for renaissance, an affirmation of renewal and of the hermetic, dynamic nature of the cosmos. (© Edward Berko. Photo: Bill Orcutt.) (Edward Berko, 50 Broadview Avenue, Kings Park, NY 11754, U.S.A.)



*Orphée*, watercolor on paper, 200 × 200 cm, 1994. The elements of randomness are worked and reworked in this fractal fractal transposition of form and color. (© Jean-Paul Agosti)



*Suite d'orphée "Le Passage,"* watercolor on paper, 1994. *Le Passage* is a work emphasizing the elements of transposition inherent in fractal art. One has the sense of viewing the work from a kaleidoscope of change and mutation, a sense that the work is never still, but in constant reformation. (© Jean-Paul Agosti)

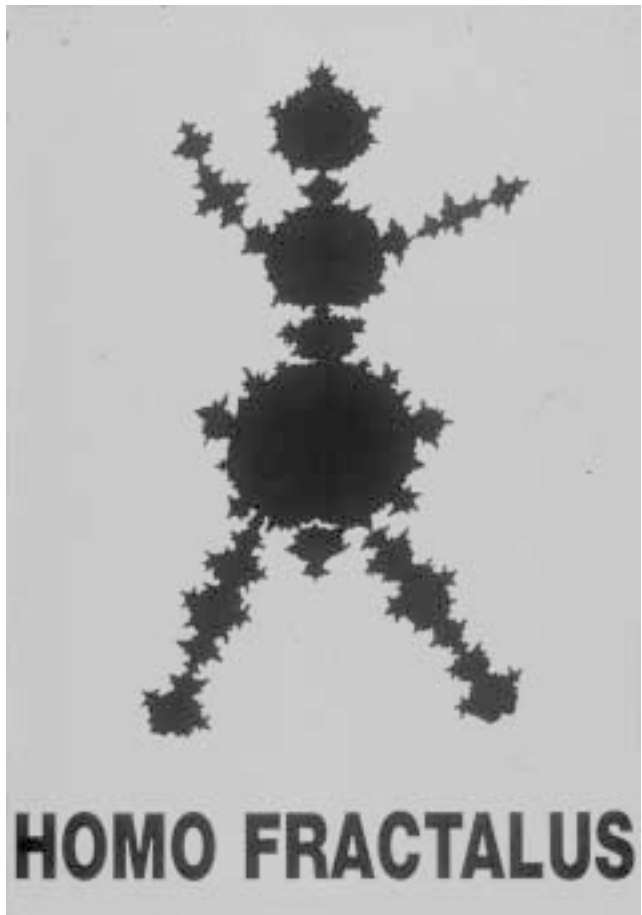


*Jardin Hieroglyphique*, watercolor on paper, 152 × 105 cm, 1998. *Jardin Hieroglyphique* (Hieroglyphic Garden) alludes to the labyrinthian qualities of the aesthetics of fractality, a state of artistic creation wherein the riddle of nature's battle between order and disorder conveys its journey through the appearance of fractal form. (© Jean-Paul Agosti) (Jean-Paul Agosti, 34, rue Montant au Palais, 89300 Joigny, France)

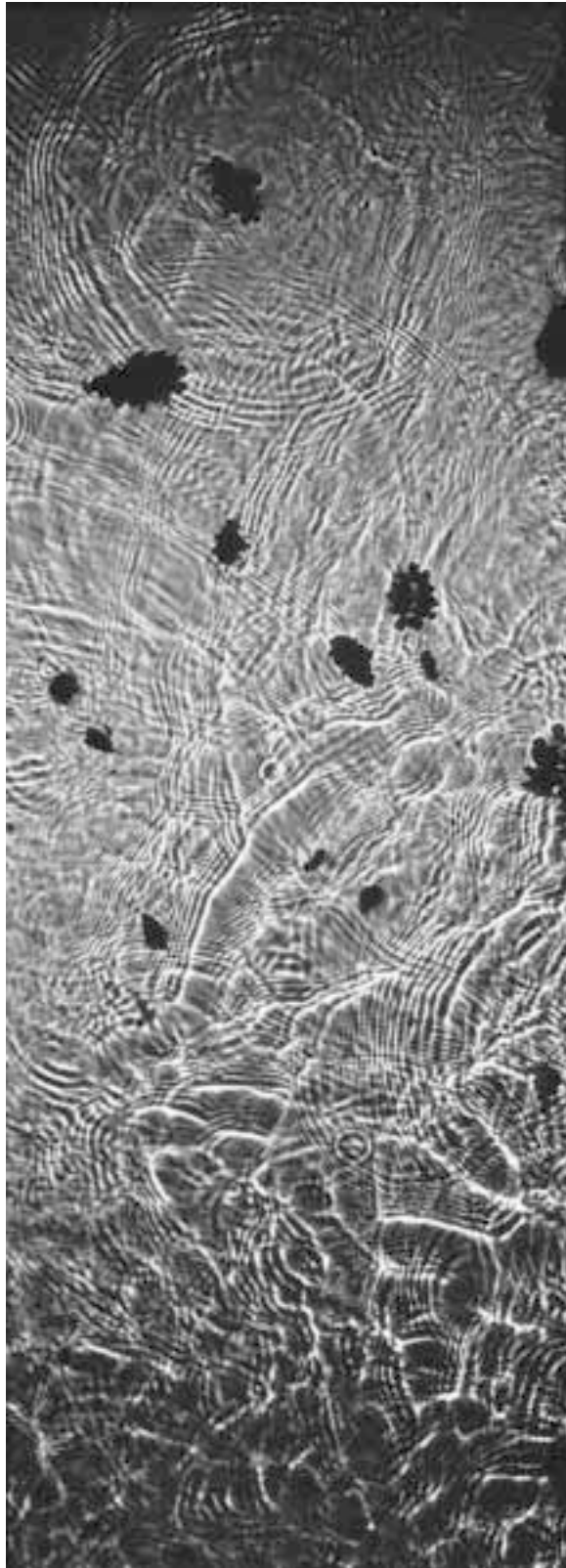
*The Neuronal Network of Social Culture*, mixed media, 1.2 × 1.2 m, 1997. Ginzburg's work is a commentary on the networked organizational forms of society and culture that proliferate at the start of a new millennium. The intersection of images reflects the intricate fractal relationship between cause and effect, i.e. the idea of the Butterfly Effect, wherein each event can be the cause of an unforeseen occurrence. Zooming into the image, we are able to detect the proliferation of details that invade the visual space, saturating it in a fractal manner. Whether viewed from close up or far away, this work of art appears to be self replicating. (© Carlos Ginzburg)



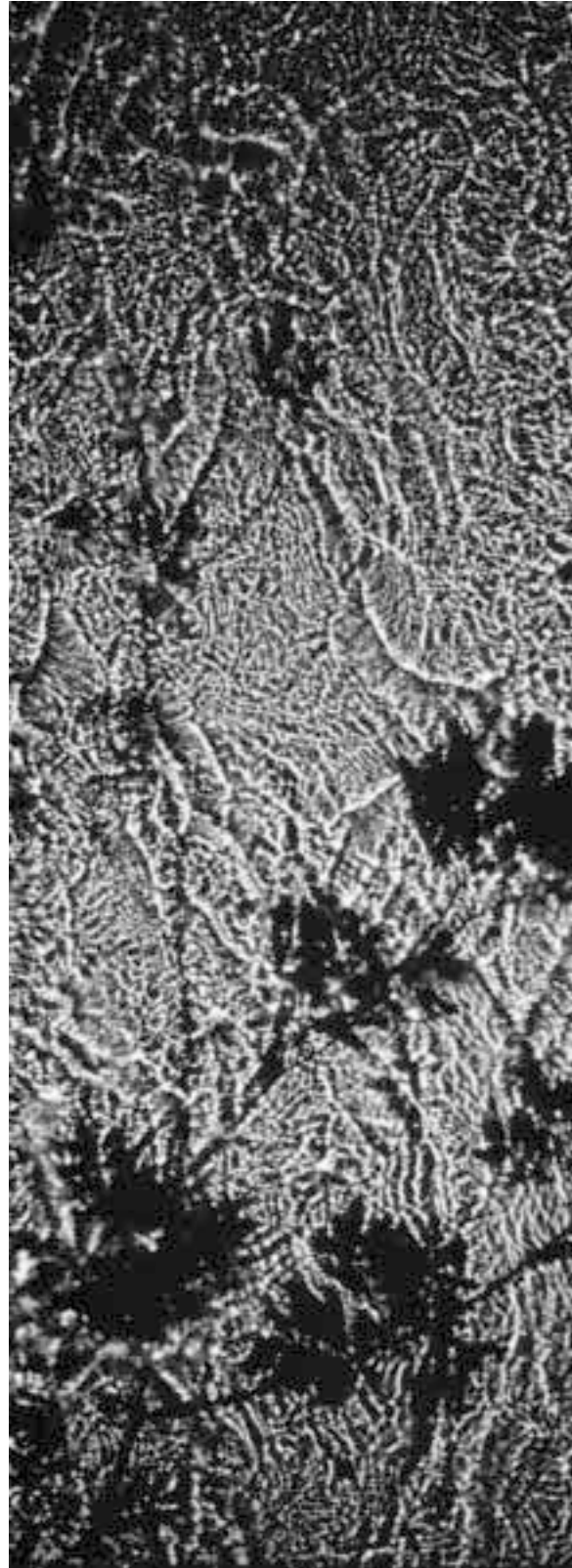
*Homo Fractalus*, mixed media, 1999. *Homo Fractalus* (Fractalman) is the iconic image created by Ginzburg as a representation of fractalist philosophies and artistic ideas. With this icon, Ginzburg presents the idea that the human being is the essential and ultimate fractal subject, reflecting the hermetic dynamics of the human body, society and mind. The image presents a symbolic formulation of Edgar Morin's tetralogy of complexity, wherein order and disorder result in the randomness that produces fractal self-organization. (© Carlos Ginzburg) (Carlos Ginzburg, 16, rue de la Division Leclerc, 92220 Bagneux, France)



SUSAN DERGES

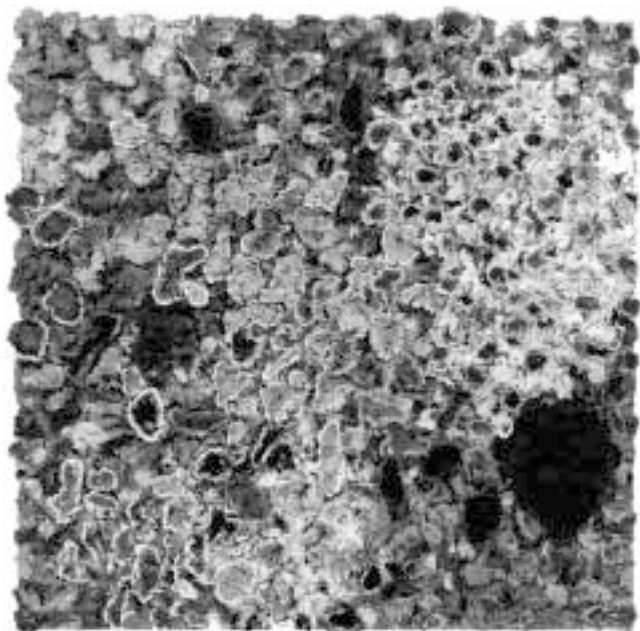


*The River Taw (Last Quarter, Willow)*, photograph, 66 × 24 in, 1998. This image comes from Derges's *Woman Thinking River* series, in which Derges extends the idea of a darkroom into the ever-changing landscape of a running river. The rhythms of the patterns describe the fractal unity of the organic forms observed. (© Susan Derges)

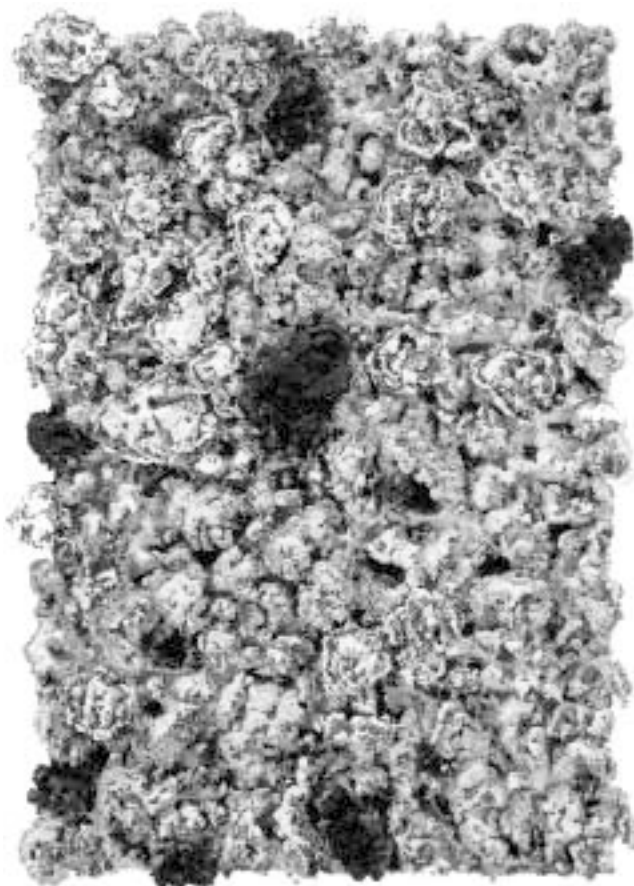


*The River Taw (New Moon, Ivy)*, photograph, 66 × 24 in, 1998. In this work, one senses the interplay of chaotic elements and elements of control, the rejuvenation of a fractal spirit underlying the whirling vortices of water and cosmic forms. (© Susan Derges) (Susan Derges, The Cottage, South Tawton, Oakhampton, Devon, England EX20 2LP)

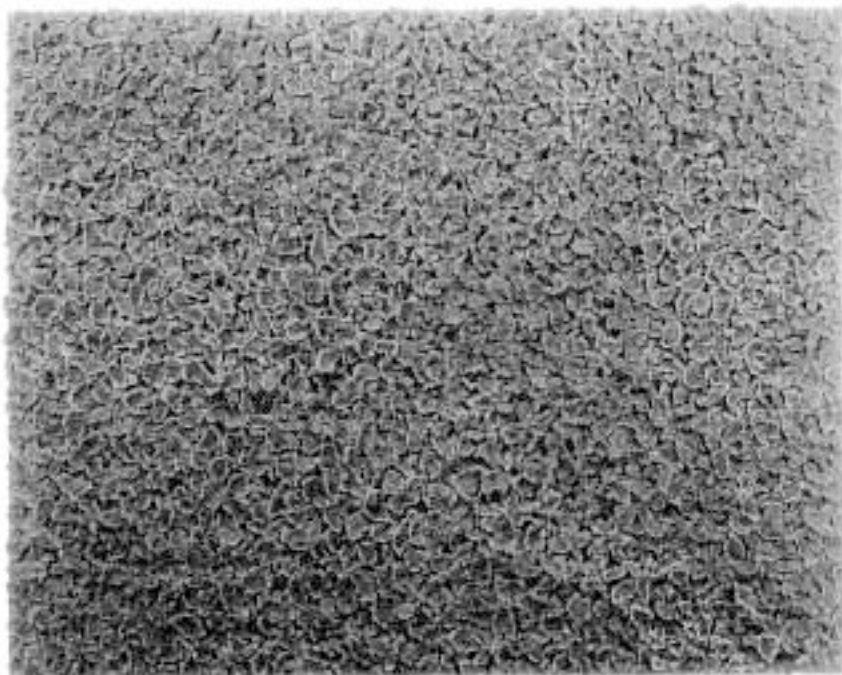
NABIL NAHAS



*Color Blind*, acrylic on canvas, 48 × 48 in, 1998. This painterly abstraction is a richly textured fractal surface, lush with color and reverberating with form. The sensual density is taken to an extreme, giving the fractal forms a new liveliness and poeticism. (© Nabil Nahas)

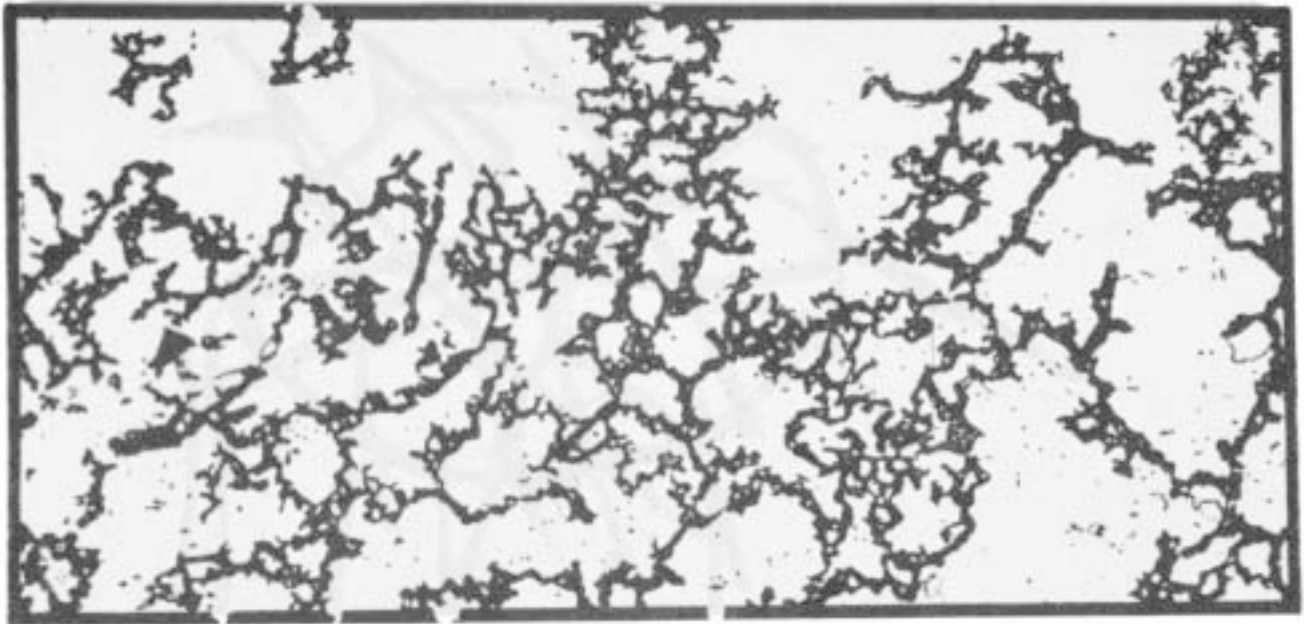


*Don't Get Me Wrong*, acrylic on canvas, 36 × 24 in, 1998. In this work, the artist works through a fractal tension of order and disorder in conflict, generating the beauty and turbulence that underscores his work as a whole. (© Nabil Nahas)

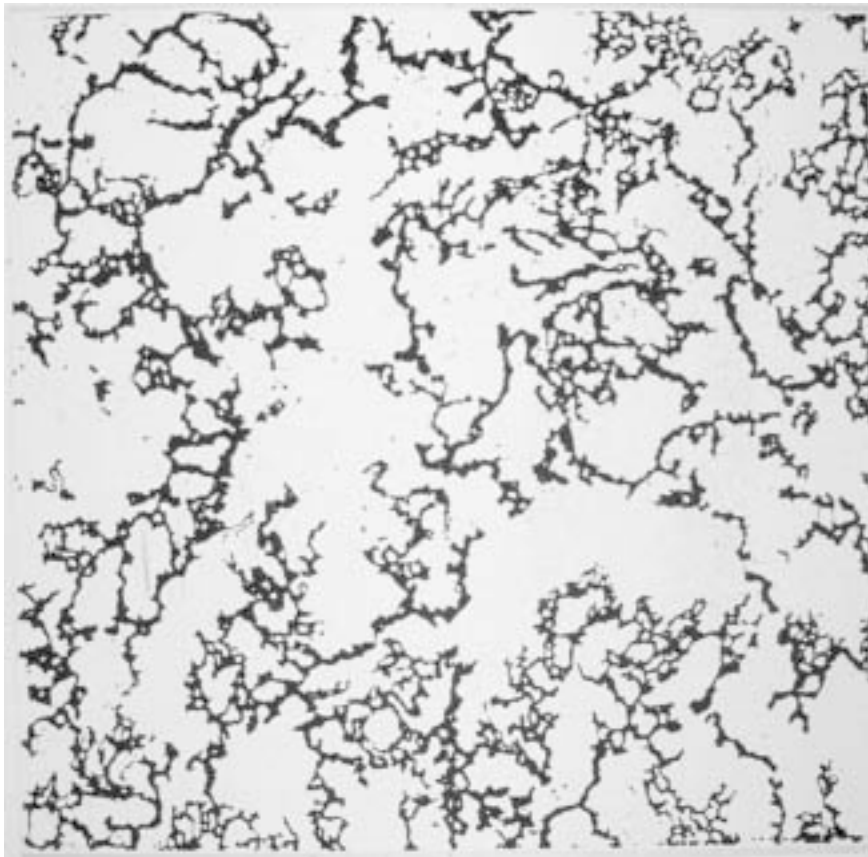


*Shadow Passing Through*, acrylic on canvas, two panels, 96 × 120 in, 1999. With two panels that form a larger work, Nahas develops the idea of fractal transience, a state of transition to which materials are subject and which is manifested through fractal forms. (© Nabil Nahas) (Nabil Nahas, 70 Washington Street, Brooklyn, NY 10013, U.S.A.)





*Parade*, oil and enamel on canvas, 20 × 42 in, 1999. This work is a meeting of forms: one, a blue fractal form developed by Long; the other, a yellow mysterious form that seems to meet and pass over the blue one. The yellow form is one that intrigued Long when he found it as a child's chalkmark scribbled on a sidewalk in Soho. This work is a commentary on the randomness of forms, the appearance of fractality everywhere. (© Jim Long)



*The Revelations of St. John (Green Version)*, oil on canvas, 56 × 56 in, 1997. *The Revelations of St. John* demonstrates a kind of fractal minimalism in its hard-edged, razor-cut images. Yet the work as a whole has a lyricism controlled by the analytical fractal impulses that float and hover in the artist's work. (© Jim Long) (Jim Long, 117 Mercer Street, New York, NY 10012, U.S.A.)