Manfred Mohr
Algorithmically Generated Geometric Spaces
United States debut of the *Klangfarben* series

Manfred Mohr - *Klangfarben*
December 6, 2008 – January 17, 2009
bitforms gallery, 529 West 20th Street, NYC
Gallery Hours: Tuesday – Saturday, 11:00 AM to 6:00 PM

Opening Reception: Thurs. Dec 11, 6:30 PM – 8:30 PM

bitforms gallery is pleased to announce the new work from Manfred Mohr in his third solo exhibition. The recent *Klangfarben* series explores high-chroma representations of a calculated geometric space against a black field. The exhibition features a computer with a dual screen-based display as well as works on paper and canvas. *P-486r*, a steel laserglyph from 1992, and plotter drawings from his 1997 *Half Plane* series are also part of the exhibit.

The rules of geometry, logic, and mathematics are fundamental to the custom-authored algorithms that generate Mohr's artwork. His pieces have been based on the logical structure of cubes and hypercubes, including the lines, planes and relationships among them since 1973. Mohr's new series of works continue to challenge contemporary notions of fine art process and form.

klangfarben is a body of paintings and animations based on the 11-dimensional hypercube and uses diagonal paths as a compositional building block. Diagonal paths are all the combinatorial possibilities of connecting two opposite points through a hypercube network, passing through each dimension once. The reference to "klangfarben" refers to a composition technique of playing one musical note and constantly changing the instrument playing that note.

Initially working in paint and traditional media, in 1968 Mohr turned to the Fortran programming language to write algorithms as a vehicle of formal precision. At that time his calculated compositions were drawn to paper using a Benson plotter at the Paris Institut Météorologique. Although rapid developments in computational sciences occurred in this era, very few laboratories, much less art studios, had access to advanced visualization tools. It wasn't until the 1980s when Xerox and IBM began to develop electronic laser printers. A pioneering visual artist, Manfred Mohr practiced computational techniques at a very early stage in new media arts genre development.

Biography
Manfred Mohr (b. 1938, Germany) has used a computer to generate his art for the past four decades. Recently the subject of a retrospective at Kunsthalle Bremen, Mohr's work is collected by the Centre Pompidou, Paris; Joseph Albers Museum, Bottrop; Mary and Leigh Block Museum of Art; Ludwig Museum, Cologne; Museum for Concrete Art, Ingolstadt; Kunstmuseum Stuttgart; Musée d'Art Contemporain, Montreal; Musée des Beaux-Arts, Montreal; Stedelijk Museum, Amsterdam; Musée de l'Elysée, Lausanne; and Kulczyk Foundation, Poznan. He has also exhibited at the Museum of Modern Art, New York; Museo Nacional Centro de Reina Sofía, Madrid; Museum of Modern Art, Los Angeles; Musée d'Art Contemporain, Montreal; Museum of

Fine Arts, Dallas; National Museum of Modern Art, Tokyo; Museum of Modern Art, San Francisco; ZKM (Center for Art and Media), Karlsruhe; and Leo Castelli Gallery. Mohr is the recipient of a New York Foundation for the Arts Fellowship; Golden Nica from Ars Electronica; the Camille Graesser-Preis, Zurich; and D.velop Digital Art Award.

Mohr co-founded the "Art et Informatique" seminar in 1969 at Vincenne University in Paris, and his first major solo museum exhibition, *Une esthétique programmée*, took place in 1971 at the Musée d'Art Moderne de la Ville de Paris. That exhibition has become known historically as the first solo show in a museum of works entirely calculated and drawn by a computer. During that show Mohr demonstrated for the first time in public a Benson flatbed plotter and the production of computer-generated drawings.

For more information please visit:
http://bitforms.com/mohr
http://emohr.com

Concurrent exhibitions with Manfred Mohr:
New York: P.S. 1 Contemporary Art Center, *Minus Space.* Features *P-777 (space.color.motion),* through January 19, 2009.

Directions to bitforms gallery
Nearest subway is the C/E to 23rd St in Chelsea

bitforms gallery is devoted to emerging and established artists who embrace new media and contemporary art practice.

Statement by Manfred Mohr on *Klangfarben*

This new work-phase entitled "klangfarben" (2006-08), is based on the 11-d hypercube. The work itself consists of two square LCD screens, a computer and my own custom software. The structure of the 11-d hypercube contains a graphic repertoire of an unimaginable 40 Billion possible "diagonal-paths". (A diagonal is the connection between two opposite points in the structure of a hypercube. "Diagonal-paths" are all the combinatorial possibilities of connecting two such opposite points through the network of the 11-d hypercube passing through each dimension once). From this repertoire four sets of eleven diagonal-paths with three distinct line widths are chosen as basic elements for each work. Every time this screen work is switched on, one out of the four sets are randomly chosen. The right screen shows a graphic construct consisting of 2 to 10 diagonal paths rotating in slow motion and all colors change randomly every 10 seconds. Single diagonal-paths fade in or out during the color changes in a cyclic but random order so that the back most diagonal-path always moves to the front. The last image, before each color change, is sent from the right screen to the left screen and stays there until the following image is received 10 seconds later. The moving image on the right screen shows, so to speak, the making of a sign and the receiving left screen shows a fixed and therefore contemplative sign. Both screen-images should not be seen simultaneously but observed independently. The screens are therefore presented in a 90 degree angle to each other, so that the observer is encouraged to choose one or the other event. The underlying logic of this work is similar to the rules of "serial music" in which each element of a series of elements has to appear at least once before the series can be repeated. The reference to "klangfarben", refers to a composition technique of playing one musical note but constantly changing the instrument which plays that note. A subtle sound modulation or "klangfarbemelodie" appears because of the inherent differences in upper and lower frequencies which create the character of each musical instrument. The random modulation of colors on each diagonal-path render exactly that subtle quality to my work.

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