

BILL RALPH

ARTISTS RESUME

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VIDEO INSTALLATIONS

- 2017 *Where Am I Standing?* 50 manipulated images of street scenes in St. Catharines playing continuously on the large video screens in the lobby of the St. Catharines Performing Arts Centre. Commissioned by the St. Catharines Performing Arts Center
- 2015 *Rush Hour* 10 minute abstract video playing continuously on the large video screens in the lobby of the St. Catharines Performing Arts Centre. Commissioned by the St. Catharines Performing Arts Center

ONE-PERSON SHOWS

- 2012 Pumphouse Gallery, Niagara-on-the-Lake
- 2011 A Mano Libera Gallery, St. Catharines, Ontario
- 2010 *A Mathematician Breathes*, Red Head Gallery, Toronto
- 2009 (ongoing) Brock Video Gallery, Brock University
- 2009 A Mano Libera Gallery, St. Catharines, Ontario
- 2006 *Gallery 25N*, Peekskill, New York
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- 2005 *Westchester Gallery* (Westchester Community College), Peekskill, New York

ONE-PERSON MUSEUM SHOWS

- 2004 *Rodman Hall*, St. Catharines, Ontario, Canada
- 2002 *Hamilton Conservatory*, Hamilton, Ontario, Canada

OTHER EXHIBITIONS

- 2014 Red Motion, Brock University Video Gallery
- 2013 Brain Vibes, Brock University Video Gallery
- 2012 1000 Variations, Brock University Video Gallery
- 2012 Ice Flow, Brock University Video Gallery
- 2010 Pellian 1, Red Head Gallery, Toronto and at Brock University Video Gallery
- 2010 1-year Group Retrospective, A Mano Libera Gallery, St. Catharines, Ontario
- 2010 Timeshift, Redhead Gallery Group Show, Toronto
- 2008 new!, 2008 Niagara Biennial, Rodman Hall Museum
- 2008 Digits!, Propeller Gallery group show
- 2006 *Slow Blue*, an animation, shown in a juried show at the New Image Gallery at James Madison University.
- 2001 *Artexpo*, Javits Center, New York, New York

PRIVATE COLLECTIONS

- 2004 *Composition on R^4* , Brock University, Ontario, Canada
2000 *Howard Anton (10 pieces)*
2000 *James Stewart (5 pieces)*

MEDIA COVERAGE

- 2010 Listed as a "Must See" show, Now Magazine, Toronto
2010 Video Review by ArtListPro can be seen at
<http://www.youtube.com/watch?v=rr6tBGqrBDY>
2009 Article and Picture, St. Catharines Standard,
2008 Article and Picture, St. Catharines Standard,
2005 Review, New York Times (Westchester Edition)
2005 Article, North County News (Entire Back Page)
2004 Review, Pulse Niagara, St. Catharines, Ontario
2004 Article, Brock Press, Brock University, St. Catharines, Ontario
2002 Article, Artexpo Preview Magazine, New York, New York

QUOTES

"..., Mr. Ralph has a wonderful and effective color sense"

"...a veiling of sinuous smoky lines and colors that dominates all the work here and is the key to its success.

"Mr. Ralph may just convince more than a few people that mathematics can be an inspiration for wonderful art."

New York Times (Westchester Edition), 2005

"viewing one of Ralph's works is ultimately like seeing into the unification of two generally separated worlds: mathematics and fine art"

"even though his pieces are based on rather simple math rules they carry an increasing complexity and spontaneity that would be almost impossible to duplicate"

North County News (Westchester New York), 2005

"If this is the first time that you have heard of Bill Ralph's mathematical art, it certainly won't be the last. "

"What begins as an equation becomes an abstract masterpiece through a series of techniques which demand a nearly flawless understanding of the subject."

Brock Press, Brock University, Canada

INVITED LECTURES (Selected)

- 2008 *Art and Mathematics*, Niagara Region Architects Association
2006 *Imagery From Encoded Systems*, Westchester Community College, Peekskill, New York

- 2005** *Visions of a Mathematical Mind*, Westchester Community College, Peekskill, New York
- 2005** *Fine Art Through a Mathematicians Eyes*, Brock University
- 2004** *Can Mathematics Recognize Great Art?*, American National Youth Science Camp
- 2003** *Can Mathematics Recognize Great Art?*, The NOCA school in New Orleans
- 2003** *Can Mathematics Recognize Great Art?*, The Birmingham School of Arts and Science, Alabama
- 2003** *Can Mathematics Recognize Great Art?*, St. Francis Xavier University, Antigonish Nova Scotia
- 2003** *Can Mathematics Recognize Great Art?*, International Conference of Schools of the Fine and Performing Arts, Niagara-on-the-Lake, Ontario, Canada

AWARDS

- 2003 *Teaching Award*, M.A.A. Seaway Section
- 2002 *Office for Partnerships for Advanced Skills (OPAS) award*, for excellence in Teaching with Technology for the creation of the Multimedia software "Journey Through Calculus" , commissioned by the Brookes/Cole Publishing Company

EDUCATION

- 1982 *Ph.D in Mathematics*, University of Waterloo, under an N.S.E.R.C. scholarship
- 1974 *A.R.C.T., L.T.C.L*, piano performance, Royal Conservatory of Music, Toronto

EMPLOYMENT

- 1985-Currently *Professor of Mathematics*, Brock University Canada

ARTIST'S STATEMENT

My work is a personal visualization of patterns and structures emerging from mathematical processes that are simulated by computer programs I design. Each work is an attempt to make a visual connection with the enormous complexity and unity that lies within the rich mathematical objects that inspire my images. The computer code I have shaped over the last twenty years contains sections that define the composition, colour and texture of each piece. Much of my work is based on the extraordinary and often chaotic behaviour that emerges from feedback loops of the form $x_{n+1} = f(x_n)$ where f is a function that I carefully constructed for its mathematical and artistic interest. Since artist's brains are also constructed from feedback loops, I see a parallel between my own work generated by a computer and traditional art generated by networks of neurons put in place by evolutionary imperatives encoded in our DNA. I wonder whose art is more intentional, the artist who explicitly creates the feedback loop or the artist who is guided by the feedback loops in their own brain?

BRIEF BIO

Bill Ralph grew up in North Bay, Ontario, Canada where it can be very cold, and has always been interested in mathematics, music and art. He spent three years in Toronto studying piano and composition before switching to mathematics at the University of Waterloo where he obtained a Ph.D. in Algebraic Topology. He is currently on the mathematics faculty of Brock University in St. Catharines Ontario where he helped

design the MICA program which is a new approach to the teaching of mathematics using technology. Several years ago, he was commissioned to design a piece of multimedia software to teach calculus and moved to San Francisco to create the CD that is now called "Journey Through Calculus" which has been shown at universities across the world. While studying the behaviour of certain chaotic dynamical systems, Professor Ralph became interested in exploiting their complexity to create the visual art which has been exhibited in several solo shows. He is also interested in financial mathematics and some of his research can be found at www.portfoliomath.com. Recently, he was asked to go to Papua New Guinea where he joined an international team to help a university set up a new undergraduate program in mathematics.