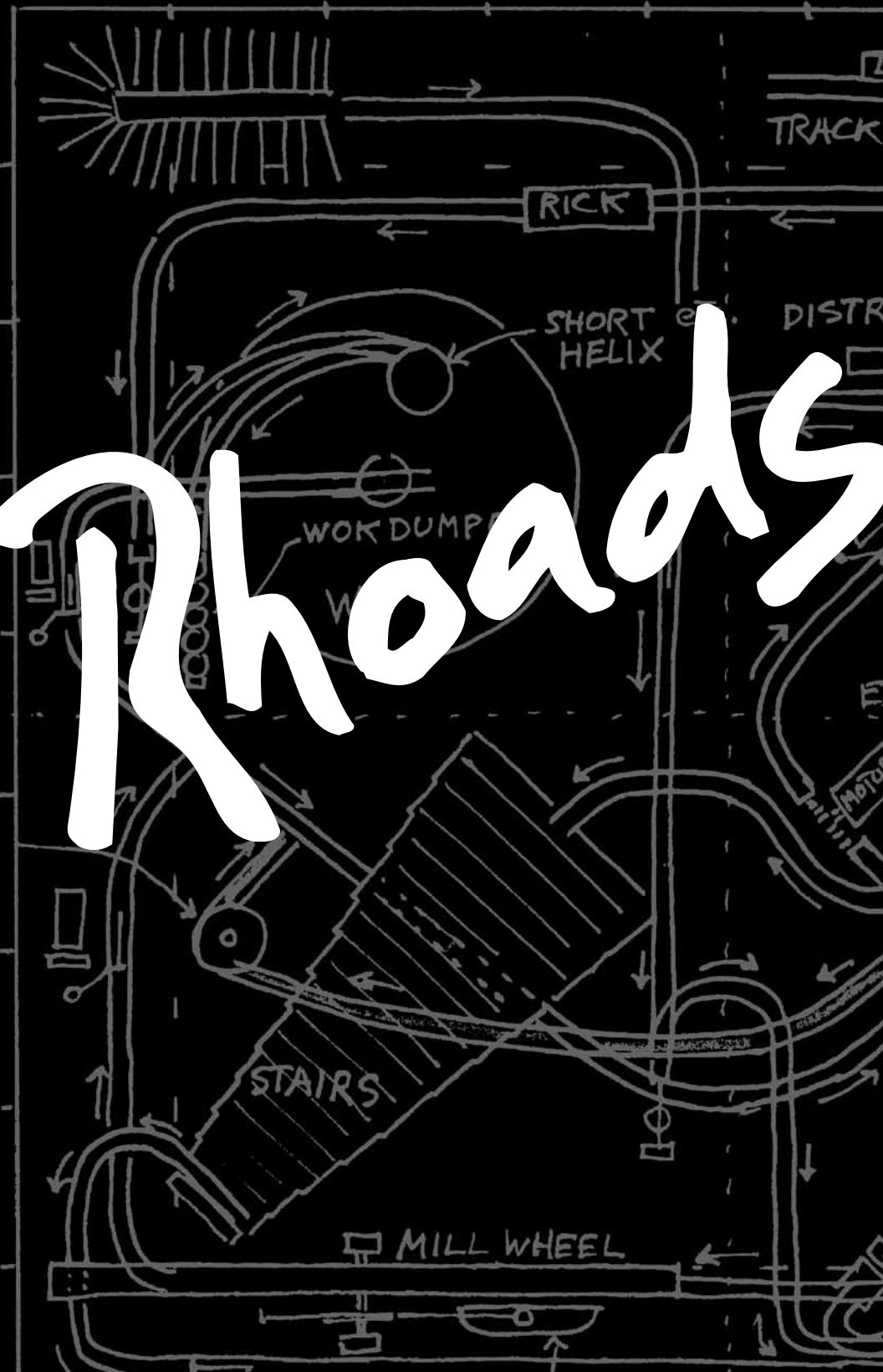


BALL MACHINE SCULPTURES

C A T A L O G



designed by artist George Rhoads
fabricated by Creative Machines Inc.

ABOUT GEORGE RHOADS

George Rhoads is well known for his large audiokinetic ball sculptures that attract and engage people throughout the world. Balls roll and percussion devices clatter and chime in airports, hospitals, art museums, science museums, shopping centers and other public places. Rhoads has designed over 250 unique pieces, virtually all of which are still in operation.

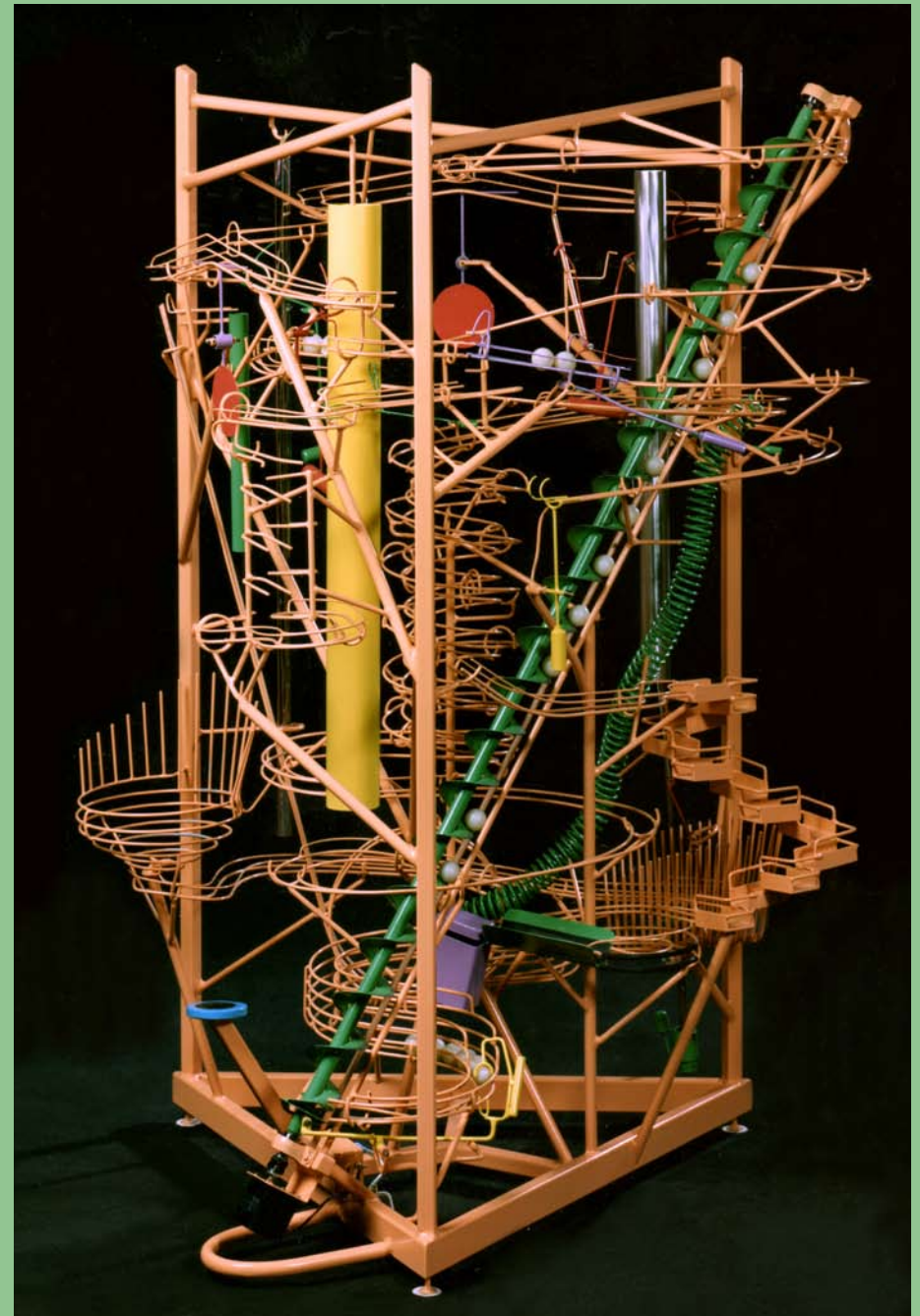
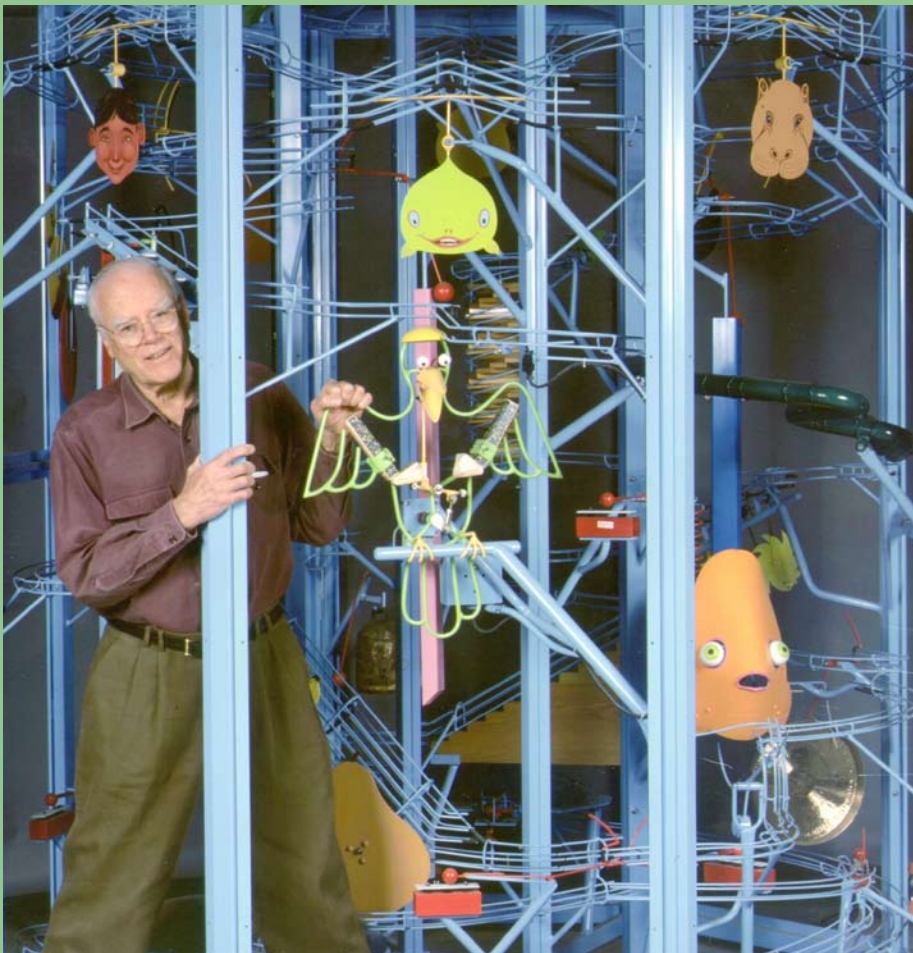
As a child Rhoads was always drawing. He constructed diverse mechanisms, among which were a Ferris wheel, a barometer, an astronomical clock and a sailing bicycle. A gifted painter, he began in the late fifties to show welded steel sculptures and kinetic copper fountains as well as paintings. His first audiokinetic sculptures were small, some involving the use of rolling balls to impel various sound and motion devices. Quirky and unique, these attracted the attention of David Bermant, a builder of shopping centers and patron of technological artists. Bermant aided Rhoads in many ways in their 35 year association, and has commissioned wind sculptures, fountains, and several large rolling ball pieces.

In his sculptures, Rhoads strives to demystify technology. He says that "machines are interesting to everybody, but people usually don't understand them because, as in a gasoline engine, the fun part goes on inside the cylinder. So I've restricted myself to mechanisms that you can see and understand quickly." The chief goal of his machines is to engage people in play. He sees himself as a prophet of the mature industrial age, a time in which the upheaval and human suffering brought about by the industrial revolution will have subsided, and, for machines as well as people, there will be no distinction between work and play.

James Seawright, director of the visual arts program at Princeton University, says of Rhoads' sculptures, "they embody almost every basic element of machinery, combined in a bewildering variety of ways. There's a level of mechanical genius behind inventing complex mechanisms; that's what George has. You look at one of his pieces and get a sense of overall design, but then you must trace out the details for yourself. The enjoyment comes from seeing your expectations fulfilled."

In 1970 Rhoads moved to upstate New York, where he now lives. There he began working closely with Bob McGuire who constructed the sculptures and installed them in such far-flung places as Guam, Seville, Kobe, and Seoul. Bob McGuire worked closely with George Rhoads over a thirty year period to develop the tricks and techniques for making reliable audiokinetic sculptures. Together they created over 250 such sculptures around the world, every one unique and virtually all of which are still in operation.

In 2007 Bob McGuire retired from making audiokinetic sculptures and invited Creative Machines to continue his partnership with George Rhoads. Creative Machines had its own history making interactive exhibits and public art and so welcomed the chance to take on this exciting work. Bob worked closely with Creative Machines for several months, training their people in his specialized techniques. Today, George Rhoads trusts Creative Machines to make his visions a reality as he continues to design new sculptures and new devices for the balls to interact with.



"We have found that people watch 'Archimedean Excogitation' for much longer than they do exhibits of the very same mechanical devices - gears, levers, pulleys, and the like - that are displayed elsewhere in the museum in a more didactic fashion."

Larry Bell, associate director
Boston Museum of Science

"There is no question in my mind that George Rhoads is the most appropriate work for public spaces being done in America today. I put them in shopping centers because it makes a better day for people no matter who they are - rich or poor, educated or not. They get enjoyment out of it, talk about it, and then others come out to see it, too."

David Bermant,
President, National Shopping Centers

"We want to thank George Rhoads ... for the superb audiokinetic sculpture that you created and installed in the lobby of the Columbia Presbyterian Babies and Children's Hospital. The animal figures that you incorporated into the piece are sensational. I'm sure they will entertain and delight thousands of children, and their parents, in the years to come. A children's hospital is a perfect setting for this fun work of art."

John M. Franks
The Carmel Hill Fund



GEORGE RHOADS' BALL MACHINE SCULPTURES



Calliope Borealic 2010

14.5' x 9' x 3'
Anchorage Museum
Anchorage, Alaska



Kugelarium 2007

6'6" x 7' x 7'
private collection
Gentilino, Switzerland

Carousaball

16' x 15' x 3'
Children's Medical Center
Austin, Texas

Minimenagerie 2006

5'6" x 4' x 4'
private collection
West Simsbury, Connecticut

Lalaballoopa

7' x 20' x 3'
Reuter's Children's
Outpatient Clinic
Asheville, North Carolina

Globe Theater

5' x 5' x 2'
Shriner's Hospital for Children
Portland, Oregon

Kinetic Ball Theater 2009

6'10" x 10' x 14"
Children's Hospital Boston
Boston; Massachusetts

Viewaball You

17' x 6'6" diameter
YouZeum
Columbia, Missouri

Symphony of the Spheres

6' x 9' x 3'
private collection
Naples, Florida

Festiball

6'6" x 7' x 7'
Shriner's Children's Hospital
Springfield, Massachusetts



Magic Menagerie 2008

16' x 7' x 3'
National Taiwan University Hospital
Taipei, Taiwan



Life is a Ball

6'6" x 4'6" x 4'6"
WMS Gaming
Waukegan, Illinois

Tower of Sisyphus 2005

40' x 10' diameter
Chesapeake Energy Corporation
Oklahoma City, Oklahoma

Ball Game II

6' x 5' x 2'
Joe DiMaggio Children's Hospital
Hollywood, Florida

**Newton's Daydream**

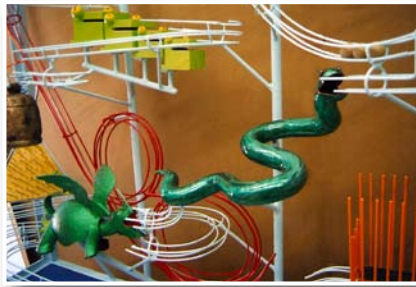
30' x 36' x 36'
Clark Planetarium
Salt Lake City, Utah

Water Works Gizmo 2004

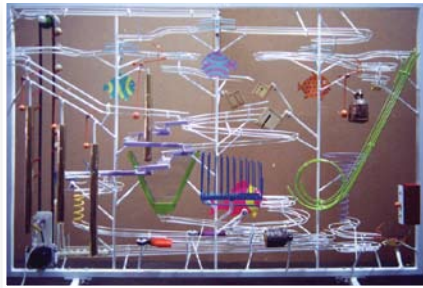
8'6" x 12' x 18"
Flint River Center
Flint River, Georgia

**Symphony of the Spheres****2009****Wallpiece LI**

3' x 5' x 8"
private collection
Albuquerque, New Mexico

**Poetry in Motion**

7' x 7' x 18"
Comer Children's Hospital
Chicago, Illinois

**Wallpiece L**

3' x 5' x 8"
Community Hospital of Monterey
Monterey, California

Ball Zoo

6'6" x 4' x 4'
Driscoll Clinic
Brownsville, Texas

Electric Ball Circus II 2003

5'6" x 4' x 4'
ABT Electronics
Glenview, Illinois

Wallpiece XLIX

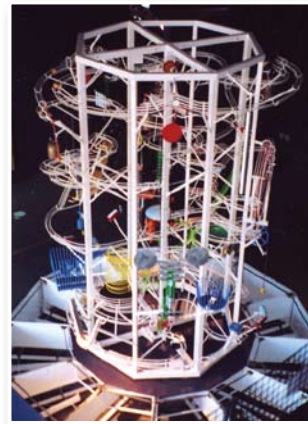
3' x 5' x 8"
private collection
Jacksonville, Florida

Kinetikon

7' x 9' x 9'
National Science & Education Museum
Taipei, Taiwan

Carnival of the Animals 2002

7' x 12' x 8'
Lincoln Children's Museum
Lincoln, Nebraska

**La Maquina de Betancourt**

3000mm x 2400mm diameter
Museo Elder
Las Palmas, Grand Canary Island

Cavortech

25' x 8' x 8'
Avampato Discovery Museum
Charleston, West Virginia

Ball Play

6' x 4' x 4'
Fukui Lions Club
Fukui, Japan

Fun Ball Box 2001

6'6" x 4' x 4'
Children's Memorial Hospital
Chicago, Illinois

Ballnasium

12' x 7' diameter
Explora
Albuquerque, New Mexico

**Loopy Links**

7' x 6' diameter
Adventure of the Seas
Royal Caribbean Cruise Lines

Peaceaball Kingdom

17' x 8' diameter
University Children's Hospital
Chapel Hill, North Carolina

It's Only a Game 2000

7' x 6' diameter
Explorer of the Seas
Royal Caribbean Cruise Lines

Funkinetic

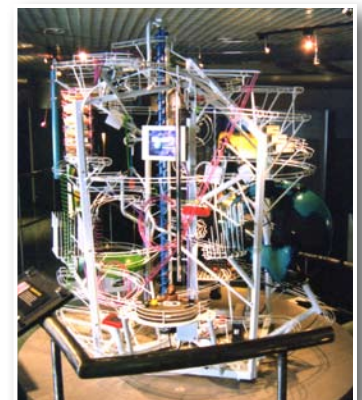
8' x 12' x 6'
Singapore Science Centre
Singapore

Trophy Won

6' x 5' x 2'
private collection
West Palm Beach, Florida

Funball Box

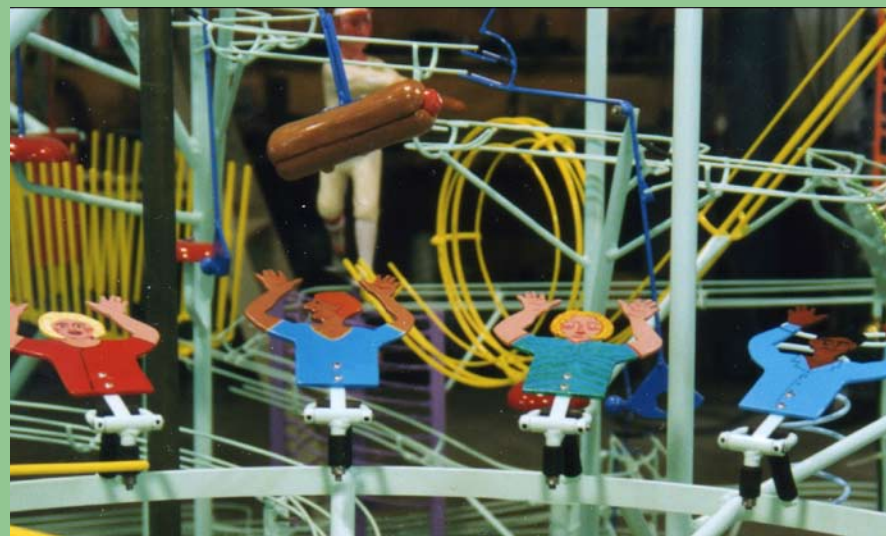
6' x 4' x 4'
Children's Memorial Hospital
Chicago, Illinois

**Eureka**

8'6" x 8' diameter
Discovery Communications
Bethesda, Maryland

Wallpiece XLVIII 1999

3' x 5' x 6"
private collection
Rancho Palos Verdes, California



Based on Balls, "The Wave"

1998

Ball Circus

6' x 4' x 4'
Tachikawa Medical Center
Nagaoka City, Japan

Gizmopolis

7' x 10' x 3'
The Hotchkiss School
Lakeville, Connecticut

Wallpiece XLVI

3' x 5' x 6"
private collection
Eastsound, Washington



Color Coaster

27' x 7' diameter
Stepping Stones Museum
Norwalk, Connecticut

Science Takes a Holiday

14' x 14' x 2'
Museo Interactivo Mirador
Santiago, Chile

S'Marblous

6' x 6' x 5'
Museum of Glass
Corning, New York

Vulcan's Dream

7' x 18' x 7'
McWane Center
Birmingham, Alabama

Based on Balls

41' x 10' x 10'
Chase Field Ballpark
Phoenix, Arizona

Main Street Ballroom

18' x 5' x 5'
Blue Cross Blue Shield
Rochester, New York



Holiday for Technology

6' x 21' x 18"
Allen Bradley Company
Mayfield Heights, Ohio

Circus of the Spheres

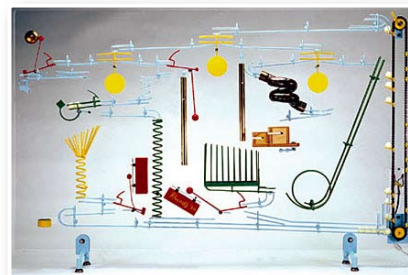
17' x 16' diameter
Sci-Port Discovery Center
Shreveport, Louisiana

Salubrifactorium

7' x 6' x 30"
Children's Hospital
New Orleans, Louisiana

Creature Ball Circus 1997

6' x 4' x 7'
Children's Hospital
Denver, Colorado



Odyssey of the Spheres

3' x 5' x 10"
limited edition (100)

Angel Music

7' x 8' x 2'
Los Angeles International Airport
Tom Bradley Terminal
Los Angeles, California

Life Renews Itself

5' x 5' x 5'
Nanba Railway Station
Osaka, Japan

Gizmonasium

17' x 20' x 3'
Children's Hospital of Philadelphia
Philadelphia, Pennsylvania

Pythagorean Fantasy

7' x 10' x 3'
College of Engineering
University of Colorado
Boulder, Colorado

Melodious Menagerie

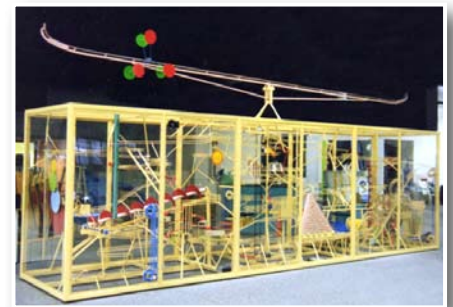
7' x 8' x 5'
Children's Hospital
University of Kentucky
Lexington, Kentucky

Creative Caper

4' x 8' x 1'
Children's Hospital
University of Kentucky
Lexington, Kentucky

Bippity Boppity Balls

6' x 7' x 7'
Children's Hospital Boston
Boston, Massachusetts



Homage to the Art of Science

11' x 24' x 5'
Imagination Station
Toledo, Ohio

Wallpiece XLVII

3' x 5' x 8"
private collection
New York, New York

Spirit of Technological Liberty

5'6" x 4' x 4'
Advanced Industrial Technologies
Cleveland, Ohio



Dragon dumper detail

2008

Science in Recess 1996

14' x 7' x 6'
Indianapolis Children's Museum
Indianapolis, Indiana

**🌀 Zippy Zoo**

7' x 6' x 30"
Columbia Presbyterian
Babies & Children's Hospital
New York, New York

Fantasia de Ferrocarril

6' x 5' x 3'
Department of Transportation
San Juan, Puerto Rico

Wallpiece XLV

3' x 5' x 8"
private collection
Ithaca, New York

Highball

29' x 8' x 12'
Ogden City Mall
Ogden, Utah

Zippo on the Go

7' x 7' x 7'
Zippo Manufacturing Co.
Bradford, Pennsylvania

Bolas Bulliciosas

6.6m x 2.2m x 2.2m
Parque Plaza Sesamo
Monterrey, Mexico

Softopia

20' x 5' x 5'
Softopia Information Center
Gifu City, Japan

Wallpiece XLI

3' x 5' x 8"
private collection
Ithaca, New York

1994**Woody**

32" x 48" x 2"
collection of the artist
Ithaca, New York

Quantum's Last Leap

17' x 6' diameter
Sciencenter
Ithaca, New York

The Roll of Balls in Therapy

7' x 4' x 14"
Columbia-Presbyterian Hospital
New York, New York

Celestial Ball Garden

10' 6" x 5' x 5'
Green Mall
Kouzu, Japan

Wallpiece XLII

3' x 5' x 8"
private collection
Taipei, Taiwan

Wallpiece XLIII

3' x 5' x 8"
private collection
Ithaca, New York

Gateway VI

5'6" x 3' x 3'
private collection
Ithaca, New York

Incrediball Circus 1993

6' x 4' x 4'
San Diego Children's Hospital
San Diego, California

**🌀 Sweet Morning Love Tower**

41' x 10' x 10'
Aekyung Department Store
Seoul, Korea

Make a Joyful Noise

18' x 7' x 7'
Rubenstein Yoav Properties
Golden Mall
Rishon Lezion, Israel

Maquina del Vacilon

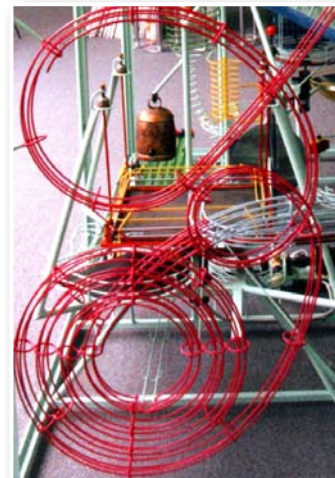
6' x 10' x 5'
Museo del Nino
Mexico City, Mexico

**🌀 Incrediball Circus II**

9' x 20' x 1'6"
Akron Children's Hospital
Akron, Ohio

Wallpiece XL

3' x 5' x 6"
M. H. Segan
New York, New York

**🌀 Gravitational Synergistic (Kinetic-Acoustic) Narrow-Parameter Fractal Paradigm**

7' x 10' x 5'
Science Spectrum
Lubbock, Texas

Celestial Balldergarten

7' x 7' x 7'
Philadelphia International Airport
Philadelphia, Pennsylvania

Wallpiece XXXVI 1992

3' x 5' x 6"
Devereux Foundation
Goleta, California

Osaka Piece

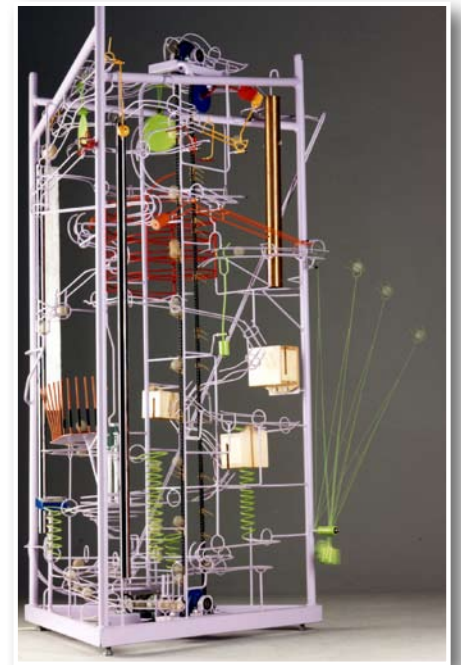
6'6" x 5' diameter
Osaka Science Museum
Osaka, Japan

Harborland

28' x 8' x 8'
Harborland Development
Kobe, Japan

Circus of the Spheres

6'6" x 5' x 7'
Rainbow Babies & Children's
Hospital Cleveland, Ohio

**🌀 Uridice**

5'6" x 3' x 3'
Discovery Science Center
Costa Mesa, California

Moballization

3' x 12' x 1'
College of Engineering
Boston University
Boston, Massachusetts

Global Enerjoy

7' x 12' x 1'
Future Energy Pavilion
Expo 92
Seville, Spain

Gateway III

5'6" x 3' x 3'
private collection
Tokyo, Japan

1991

Gateway IV

5'6" x 3' x 3'
private collection
Tokyo, Japan

Wallpiece XXVII

3' x 5' x 6"
private collection
Ithaca, New York

Super Ballpark

10' x 6' diameter
Kwasha Lipton Corporation
Fort Lee, New Jersey

Bodyworks

16' x 5' diameter
Ibaragi Prefecture Health Center
Ibaragi, Japan

Wallpiece XXXVII

5' x 3' x 6"
private collection
Manhattan Beach, California

Wallpiece XXXVIII

3' x 5' x 6"
Magic House
St. Louis, Missouri

Wallpiece XXXIX

3' x 5' x 6"
private collection
Nokomis, Florida

American Dream

6' x 3' x 3'
Sanyo Railways Himeji Station
Himeji, Japan

**Lalaballoosa**

6'6" x 4' x 4'
St. Louis Children's Hospital
St. Louis, Missouri

Newton's Dream

14' x 14' x 5'
Franklin Institute
Philadelphia, Pennsylvania

1990**Hail to the Victor**

5' x 1' x 1'
Bruce Zenkel
New York, New York

Magic Clock

7'6" x 7'6" x 6"
Japan Retailing Center
Tokyo, Japan

Wallpiece XXXI

3' x 5' x 6"
The Tech Museum
San Jose Airport
San Jose, California

Gateway II

5'6" x 3' x 3'
private collection
Tokyo, Japan

**Science on a Roll**

16' x 12' x 4'
The Tech Museum of Innovation
San Jose, California

Wallpiece XXXII

3' x 5' x 6"
private collection
Brentwood, California

Wallpiece XXXIII

3' x 5' x 6"
O'Brien Energy Systems
Philadelphia, Pennsylvania

Wallpiece XXXIV

3' x 5' x 6"
private collection
Tokyo, Japan

Wallpiece XXXV

3' x 5' x 6"
private collection
Tokyo, Japan

Wallpiece XXV

3' x 5' x 6"
private collection

1989**Having a Ball**

14' x 14' diameter
Ontario Science Center
Toronto, Ontario

Wallpiece XXVI

3' x 5' x 6"
private collection
St. Louis, Missouri

(untitled)

5'6" x 6' x 3'
private collection
Philadelphia, Pennsylvania

Wallpiece XXVIII

3' x 5' x 6"
private collection
Japan

**Programaball**

5'6" x 3' x 3'
Gateway Design Development
Lowell, Massachusetts

Incrediball Clock

28' x 10' x 10'
Plaza Camino Real
Carlsbad, California

(untitled)

10' x 19' x 2'
private collection
David Sharps
Jersey City, New Jersey

Global Circus II

7' x 10' x 4'
Rockingham Center
Rockingham, Western Australia

Wallpiece XXIX

3' x 5' x 6"
private collection
Greenwich, Connecticut

Wallpiece XXX

5' x 3'6" x 6"
private collection
Atlanta, Georgia

Wallpiece XVI

3' x 5' x 6"
private collection

1988**Wallpiece XVII**

3' x 5' x 6"
Moore International
Great Neck, New York

Wallpiece XVIII

3' x 5' x 6"
TASC, Inc.
Reading, Massachusetts

Ball Game

30' x 15' x 8'
Forest Fair Mall
Cincinnati, Ohio

**Chockablock Clock**

46' x 13' x 9'
Strawberry Square
Harrisburg, Pennsylvania

Wallpiece XXIII

3' x 5' x 6"
private collection
New York, New York

Wallpiece XXIV

3' x 5' x 6"
private collection
Encino, California

Pelota Pagoda

26' x 10' x 10'
Micronesian Mall
Tamuning, Guam

Wallpiece XX

3' x 5' x 6"
private collection
St. Louis, Missouri

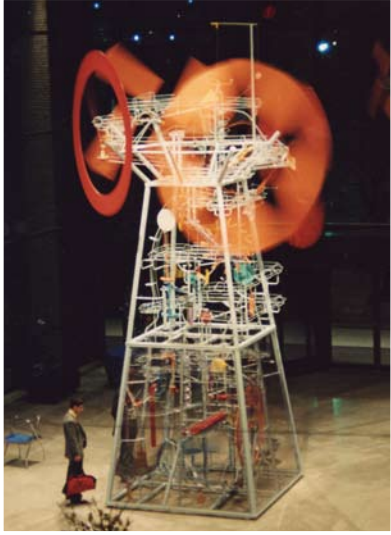
1987

Wallpiece XXI

3' x 5' x 6"
private collection
Las Vegas, Nevada

Wallpiece XXII

3' x 5' x 6"
private collection
New York, New York

**Archimedean Excogitation**

27' x 8' x 8'
Museum of Science
Boston, Massachusetts

Wallpiece XIV

3' x 5' x 6"
private collection

Watchamaballit

26" x 8' x 8'
Champlain Center
Plattsburgh, New York

Global Circus

7' x 10' x 4'
Northland Shopping Centre
Melbourne, Australia

Wallpiece XV

3' x 5' x 6"
private collection

Wallpiece XIX

3' x 5' x 6"
private collection
Washington, D.C.

Goldberg Variations 1986

6'6" x 7' x 7'
Logan Airport, Terminal A
Boston, Massachusetts

Wallpiece IX

3' x 5' x 6"
private collection
New York, New York

Wallpiece X

3' x 5' x 6"
private collection
Paris, France

Perpetuball Motion Machine

26' x 8' x 8'
Salmon Run Mall
Watertown, New York

(untitled)

9' x 10' x 10'
West Edmonton Mall
Edmonton, Alberta

Wallpiece XI

3' x 5' x 6"
private collection
Rye, New York

Wallpiece XII

5' x 5' x 6"
private collection
New York, New York

Wallpiece XIII

3' x 5' x 6"
Butler Institute of Art
Youngstown, Ohio

Blue Shamrock

40" x 8" x 50"
private collection
Santa Barbara, California

**Exercise in Fugality**

6'6" x 7' x 7'
Logan Airport, Terminal E
Boston, Massachusetts

Ball City 1985

27' x 10' x 10'
West Edmonton Mall
Edmonton, Alberta

Magic Clock (Slim Clock)

6' x 4' x 2'
David Bermant Foundation
Santa Barbara Airport
Santa Barbara, California

Wallpiece VIII

3' x 5' x 6"
private collection
New York, New York

Tower of Bauble

32' x 10' x 10'
Move: Science World
Vancouver, B.C. Canada

Wallpiece IV 1984

3' x 5' x 6"
Asahi Shimbun Newspaper
Tokyo, Japan

Sakane Piece

3' x 5' x 2'
IBM Corporation
Tokyo, Japan

Wallpiece V

3' x 4' x 6"
private collection
New York, New York

Wallpiece VI

3' x 5' x 6"
Malcolm Forbes Museum
New York, New York

Wallpiece VII

3' x 5' x 6"
private collection
New York, New York

Having a Ball 1983

12' x 8' x 1'
Move: Don Harrington
Discovery Center
Amarillo, Texas

Wallpiece III

3' x 5' x 6"
private collection
Greenwich, Connecticut

Magic Clock - West Erie

6' x 4' x 2'
West Erie Plaza
Erie, Pennsylvania

42nd Street Ballroom

8' x 8' x 8'
Port Authority Bus Terminal
New York, New York

Wallpiece II 1982

3' x 5' x 6"
private collection
Rye, New York

Good Time Clock

6' x 4' x 2'
David Bermant Foundation
Port Authority Bus Terminal
New York, New York

Wallpiece I 1981

3' x 5' x 6"
private collection
Santa Barbara, California

Magic Clock - Cermak

6' x 4' x 2'
Cermak Plaza
Chicago, Illinois

Splendule 1980

12" x 12" x 7"
collection of the artist

Magic Clock - Hamden

6' x 4' x 2'
Move: Durango Discovery Museum
Durango, Colorado

Kinetic Fountain 1979

5' x 12" x 12"
private collection

Martian Clock 1975

18" x 8" x 16"
private collection

Electric Ball Circus 1974

12' x 8' x 8'
Long Ridge Mall
Rochester, New York

City of Destiny 1970

12" x 30" x 36"
private collection

Chrysalophony 1969

26" x 8" x 8"
private collection

Adventures in Materiality

5' x 3' x 4'
Westinghouse Corporation

Homage to Ludwig 1968

26" x 10" x 10"
private collection





ONE MAN SHOWS

Sola Gallery, Ithaca, NY, 1997
Ruth Siegal Gallery, NYC 1992
Queens Museum, Queens, NY, 1988
Kornblee Gallery, NYC, 1979
Theo Portnoy Gallery, NYC, 1978
Everson Museum, Syracuse, NY, 1976
Arnot Museum, Elmira, NY, 1975
Dobrick Gallery, Chicago, 1971
Chakrian Gallery, NYC, 1969
A. C. A. Gallery, NYC, 1966
Terry Dintenfass, NYC, 1963–64
Gallery Huit, Paris, 1952

GROUP EXHIBITIONS

New York Hall of Science, Corona, NY, 1991
“Playing Around: Toys by Artists,” De Cordova Museum
Group Exhibition, Jacksonville Art Museum, 1991
P.U.L.S.E. II, Santa Barbara University Art Museum 1991
List Visual Arts Center, MIT, Cambridge, MA 1989
Expo ‘88, Brisbane, Australia *Interaction Light, Sound, Motion*
Aldrich Museum of Contemporary Art, 1988
Group Exhibition, The Wadsworth Atheneum, Hartford, Connecticut, 1984
Beethoven,” (exhibition of Beethoven memorabilia) Aachen, Germany, 1970
“An Exhibition of the Art of Paper Folding,” Cooper Union, NYC, 1959
“Painters of the City,” (touring exhibition in the USA and Europe), organized by the
Art Institute of Chicago, 1956

EDUCATION

Academie de la Grande Chaumiere, Paris 1951–52
University of Chicago, A.B. degree, 1946
Art Institute of Chicago, Painting and Drawing, 1945

MUSEUMS

Museum of Modern Art, NYC
The Art Institute of Chicago, Illinois
The Butler Institute of American Art, Youngstown, Ohio
The Wadsworth Atheneum, Hartford, Connecticut

COLLECTIONS

Leonard Bernstein
Malcolm S. Forbes
Lawrence Tish
David Elliot
Herbert Adler
Yevgeny Yevtushenko
David Bermant
William Marsteller
American Scientific Company
Westinghouse Electric Company

ARTICLES & REVIEWS

Morning Edition. National Public Radio, August 15, 2002
Dictionary of the Avant Garde. Richard Kostelanetz. 1993, 2000
This Morning show, ABC TV, June 30, 1997
Artforum, April 1992. Reviewed by Justin Spring
Art in America, April 1992. Reviewed by George Melrod
“Clumper upper to wok dumper” *Smithsonian Magazine*, Oct. 1988
“Krazy Kinetic Kontraptions,” *The Christian Science Monitor*, Feb. 5, 1988
“Timely Projects,” *The New York Times*, Dec. 1988
“Sculpture Fun House,” *New York Time Magazine*, May 31, 1987



The Tower of Babel

The Fun Starts Here!

In this giant audio-kinetic sculpture, you can roll along many ever-changing, but ever-repeating paths. This colourful contraption is a masterpiece of engineering and sound. The thrilling sights and sounds will make you feel like you're in the real world.

The sculpture was created by the artist and architect, and is a masterpiece of engineering and sound.





FOR MORE INFORMATION:

**Creative Machines Inc.
3113 East Columbia Street
Tucson, Arizona 85714**

1-800-861-7937

www.ballmachinesculptures.com