

# Visual Mathematics

The official public web page for Math 801-10 : Visual Mathematics  
A Dean's Seminar for Freshmen  
(This page remains: currently under construction!)

## Recommended Visual Math Software:

- **Fractint:** <http://spanky.triumf.ca/www/fractint/fractint.html> The classic PC fractal program. Try Winfract MS Windows version.
- **Winfeed:** <http://math.exeter.edu/rparris/winfeed.html> A great program that draws many types of fractals
- **Tyler:** <http://www.superliminal.com/geometry/tyler/Tyler.htm>, Draws regular and semi-regular tessellations, and more. Web based applet is also available as java application.
- **MusiNum:** <http://www.mns.brain.riken.jp/~kinderma/musinum/musinum.html>: Fractal music software.
- Jeff Week's amazing software including **Kali** and **Kaleidotile** : <http://geometrygames.org/>
- **Tess32:** <http://www.soft411.com/company/Pedagogy-Software-Inc/Tess.htm>
- **Pretzangles:** <http://www.pretzangles.com/index.html>
- **Anamorph Me!:** <http://www.anamorphosis.com> (see also <http://myweb.tiscali.co.uk/artofanamorphosis/AnamorphMe-README.txt> )
- **QuasiG:** <http://condellpark.com/kd/quasig.htm> A program for drawing Penrose tilings
- **Boids:** [http://www.navgen.com/3d\\_boids/](http://www.navgen.com/3d_boids/) Simulation of bird flocking behavior
- **Life32:** <http://psoup.math.wisc.edu/Life32.html> Fully featured program to play Conway's game of Life
- **Life** <http://www.robmaeder.com/projects/code/life.php> Easy & basic program to play Conway's game of Life

## Artists & Mathematicians:

- Thomas Banchoff: <http://www.math.brown.edu/~banchoff/>
- Dror Bar-Natan: <http://www.math.toronto.edu/~drorbn/Gallery/index.html>
- Paul Bourke: <http://astronomy.swin.edu.au/~pbourke/>
- Brent Collins: <http://www.mi.sanu.ac.yu/vismath/col/col1.htm>
- Santiago Calatrava: <http://www.calatrava.com/>
- Bill Casselman: <http://www.math.ubc.ca/~cass/>
- H. S. M. Coxeter: <http://www.math.toronto.edu/coxeter/art-math.html>
- Hop David: <http://clowder.net/hop/index.html>
- Stewart Dixon: [http://emsh.calarts.edu/~mathart/portfolio/SPD\\_Math\\_portfolio.html](http://emsh.calarts.edu/~mathart/portfolio/SPD_Math_portfolio.html)
- M. C. Escher: <http://www.mcescher.com/home.html>
- Robert Fathauer: <http://members.cox.net/tessellations/index.html>
- Helaman Ferguson: <http://www.helasculpt.com/>
- Mike Field: <http://nohung.math.uh.edu/~mike/>
- R. Buckminster Fuller: <http://www.bfi.org/>
- Natalie Priebe Frank: <http://math.vassar.edu/Faculty/Priebe/default.html>
- Nat Friedman: <http://math.albany.edu:8000/~artmath/>
- Chiam Goodman-Strauss: <http://comp.uark.edu/~strauss/>
- Alfred Gray: <http://math.cl.uh.edu/~gray/>
- George W. Hart: <http://www.georgehart.com/>
- Sol LeWitt: <http://www.smith.edu/artmuseum/exhibitions/spectrum/edle Wittfull.htm>
- Rochelle Newman: <http://www.dmh.net/creativecrosslinks/sheli.htm>
- Charles Perry: <http://www.cs.berkeley.edu/~sequin/SCULPTS/PERRY/>
- Marjorie Rice: <http://tessellations.home.comcast.net/>
- Tony Robbin: <http://tonyrobbin.home.att.net/>
- John Robinson: <http://www.cpm.informatics.bangor.ac.uk/sculpture/sculpture.html>
- Paul Rosenthal: [http://www.math-inf.uni-greifswald.de/mathematik+kunst/ausstellung\\_0.html](http://www.math-inf.uni-greifswald.de/mathematik+kunst/ausstellung_0.html)
- Rudy Rucker: <http://www.mathcs.sjsu.edu/faculty/rucker/>
- Brian Sanderson: <http://www.maths.warwick.ac.uk/~bjs/>
- Lana Schneider: <http://fiberarts.org/design/articles/algebra.html>
- Lillian F. Schwartz: <http://www.lillian.com/>
- Richard Evan Schwartz: <http://www.math.umd.edu/~res/>
- Henry Segerman: <http://www.stanford.edu/~segerman/>
- Carlo Sequin: <http://www.cs.berkeley.edu/~sequin/>

Wayback Machine: <http://www.archive.org/web/20040608000548/http://home.gwu.edu/~robinson/vm/visual.html>

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### Online Art Galleries:

Hands on Math: <http://geometrygames.org/>

Anamorphosis: <http://www.anamorphosis.com/>

World of Mathematics (by Eric Weissstein): <http://mathworld.wolfram.com/topics/MathematicalArt.html>

### Pages on topics of interest:

- The book Flatland on-line: <http://www.alcyone.com/max/lit/flatland/>
- Polyhedra
  - Paper Models of Polyhedra: <http://www.korthalsaltes.com/>
  - V. Bulatov's polyhedra collection: <http://www.physics.orst.edu/~bulatov/polyhedra/>
- Tilings of squares by squares: [http://www.maa.org/editorial/mathgames/mathgames\\_12\\_01\\_03.html](http://www.maa.org/editorial/mathgames/mathgames_12_01_03.html)
- Math in the movies: <http://world.std.com/~reinhold/dir/mathmovies.html>
- Architecture
  - Federation Square in Australia: <http://www.fedsq.com/>

### Surveys of Math and Art:

American Mathematical Society: <http://www.ams.org/new-in-math/cover/art1.html>

### Other "Math & Art" Courses:

- Dartmouth University: <http://www.math.dartmouth.edu/~matc/>
- Indiana University: <http://mypage.iu.edu/~mathart/viewpoints/lessons/>
- MIT: <http://www.soemadison.wisc.edu/edpsych/facstaff/dws/ew/ewinfo.html>

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