Honors 1360 – Spring 2015

Here are some links related to the material we've been talking about so far.

Fractals and chaos

- http://classes.yale.edu/fractals/
  - Mike Frame's excellent tutorial website on all kinds of interesting things related to fractals and chaos. Try some of his software. (It's written in JAVA and you probably have to first allow your computer to "trust the site." [Google "trust a java site."] It's a JAVA thing; sorry.)
- https://www.youtube.com/watch?v=0jGaio87u3A
  - This is the Mandelbrot Set zoom we looked at.

Generative Art

- https://www.youtube.com/watch?v=MwHQx9BrHQc
  - An interview with Harold Cohen, the creator of AARON. In the background you will occasionally see both the new and old AARON versions producing pictures in real time. (Can you tell which is which?)
- http://socks-studio.com/2014/03/05/the-aesthetics-of-chance-ellsworth-kellys-spectrum-colors-arranged-by-chance-i-to-viii/
  - Ellsworth Kelly's "chance" paintings.
- http://www.philipgalanter.com/generative_art/bibliography.html
  - An excellent bibliography of generative art examples.
- http://www.thepaintingfool.com/
  - Simon Colton's artificial artist.
  - Videos: https://www.youtube.com/watch?v=m2KWQ47LBXQ and https://www.youtube.com/watch?v=MZoliFtz4MA
  - Related, eDavid: http://www.informatik.uni-konstanz.de/en/edavid/
- http://weavesilk.com/
  - Computer finger-painting.

Generative Music

- https://www.youtube.com/playlist?list=PLaFqttwBveNRu4olgqWNin7qdRaVnVk97
  - Pieces by David Cope's "Emily Howell.
  - See also: http://www.engadget.com/2013/04/11/david-cope/
- http://music.columbia.edu/cmc/musicandcomputers/popups/chapter1/xbit_1_1.php
  - Sonification examples
- http://www.earslap.com/
  - Interesting make your own generative music site; try Otomata and Circuli and look at/listen to his other stuff.
- http://www.doctornerve.org/nerve/pages/nervmenu.htm
  - Doctor Nerve's main page.
  - See also: http://www.doctornerve.org/nerve/pages/interact/mrkvform.shtml
    You should play with the "Markov" string generator. Try entering a short, repetitive poem, such as Humpty Dumpty. Generate 200 words, say. This is how Doctor Nerve produces their new compositions, except they input musical notes and duration (such as, C#q, "C

sharp quarter"). For it to work you need to input strings with different pairs containing one same entry (e.g., C#q Fh C#q Gh – note the spaces between the entries). Example:

In:
Writing a Limerick's absurd,
Line one and line five rhyme in word,
And just as you've reckoned,
They rhyme with the second;
The fourth line must rhyme with the third.

Out:
Writing a Limerick's absurd,
Line one and line five rhyme in word,
And just as you've reckoned,
They rhyme with the third.
Writing a Limerick's absurd,
Line one and line must rhyme with the second;
The fourth line five rhyme with the third.
Writing a Limerick's absurd,
Line one and line must rhyme in word,
And just as you've reckoned,
They rhyme with the third.
Writing a Limerick's absurd,
Line one and line must rhyme with the third.
Writing a Limerick's absurd,
Line one and line five rhyme in word,
And just as you've reckoned,
They rhyme with the second;

(Think of it as jazz.)

Illusions

- http://dianadeutsch.ucsd.edu/psychology/pages.php?i=201
  - This is Diana Deutsch's incredible website. Listen to all of her cool auditory illusions.
- http://www.earslap.com/article/combination-tones-and-the-nonlinearities-of-the-human-ear.html
  - The missing note illusion.
- http://gizmodo.com/this-audio-illusion-will-make-you-never-trust-your-ears-1593113324
  - "The Constitution Center …"
- http://io9.com/these-auditory-illusions-are-absolutely-bewildering-1583521150
  - Shepard tones.
- http://www.design.kyushu-u.ac.jp/~ynhome/ENG/Demo/illusions.html#13
  - Melody of silences.

- http://www.michaelbach.de/ot/
    - Michael Bach's encyclopedia of optical illusions.

Fractal images

- http://classes.yale.edu/fractals/software/software.html
    - Frame's Yale website software. We explored the iterated function systems programs Deterministic IFS and Random IFS in class. (Remember, you might have to allow your browser to run the JAVA routines (see above).)
- http://classes.yale.edu/fractals/panorama/Art/Forgeries/Forgeries.html
    - This page has a few fractal forgery examples.

3D printing

- https://www.youtube.com/watch?v=e0rYO5YI7kA
    - Short intro to 3D printing.
- http://www.ted.com/talks/avi_reichental_what_s_next_in_3d_printing?language=en#t-19136
    - Interesting TED talk.
- http://vimeo.com/116582567
    - Animated 3D printed sculpture.