

Variability  
Time + Motion

## Elements of Media

Four perspectives on the question, what are the properties of new media? <small>Compiled by David Tamés, <a href="http://kino-eye.com">http://kino-eye.com</a></small>			
<p>Literature / Interactive Fiction</p> <p><b>Janet Murray</b></p> <p><i>Four characteristics that make [new media] a powerful vehicle for literary creation.</i></p> <ol style="list-style-type: none"> <li>1. Procedural</li> <li>2. Participatory</li> <li>3. Spatial</li> <li>4. Encyclopedic</li> </ol> <p><small>Source: Janet Murray, <i>Hamlet on the Holodeck: The Future of Narrative in Cyberspace</i>, Free Press, 1997.</small></p>	<p>Communication Design</p> <p><b>Jan Kubasiewicz</b></p> <p><i>Values and concepts we use to understand the phrase, "the language of dynamic media."</i></p> <ol style="list-style-type: none"> <li>1. Information <ul style="list-style-type: none"> <li>- Communication</li> <li>- Representation</li> </ul> </li> <li>2. Time + Motion <ul style="list-style-type: none"> <li>- Sequentiality</li> <li>- Narrative</li> </ul> </li> <li>3. Interaction <ul style="list-style-type: none"> <li>- Interface</li> <li>- Information Visualization</li> <li>- Narrative</li> </ul> </li> </ol> <p><small>Source: Jan Kubasiewicz, "The Atlas of Dynamic Media," <i>Massaging Media 2</i>, AIGA Design Conference, Boston, Massachusetts, Keynote Address, 2008.</small></p>	<p>Narratology</p> <p><b>Marie-Laure Ryan</b></p> <p><i>Five fundamental properties of digital media.</i></p> <ol style="list-style-type: none"> <li>1. Reactive and interactive nature</li> <li>2. Multiple sensory and semiotic channels</li> <li>3. Networking capabilities</li> <li>4. Volatile signs</li> <li>5. Modularity</li> </ol> <p><small>Source: Marie-Laure Ryan, "Will New Media Produce New Narratives?" in Marie-Laure Ryan, Ed., <i>Narrative across Media: The Languages of Storytelling</i>, University of Nebraska Press, 2004.</small></p>	<p>Media Studies</p> <p><b>Lev Manovich</b></p> <p><i>Five principles of new media: general tendencies of a culture undergoing computerization.</i></p> <ol style="list-style-type: none"> <li>1. Numerical Representation</li> <li>2. Modularity</li> <li>3. Automation</li> <li>4. Variability</li> <li>5. Transcoding</li> </ol> <p><small>Source: Lev Manovich, <i>The Language of New Media</i>, The MIT Press, 2001.</small></p>

So back to David Tamés’ four perspectives on the properties of new media. Lets explore Time+Motion by Kubasiewicz, and Variability by Manovich.

there are many  
does not have to be interactive

we will use these as an organizing principle for this course. this course should give you skills to explore these elements, how do they influence experience?

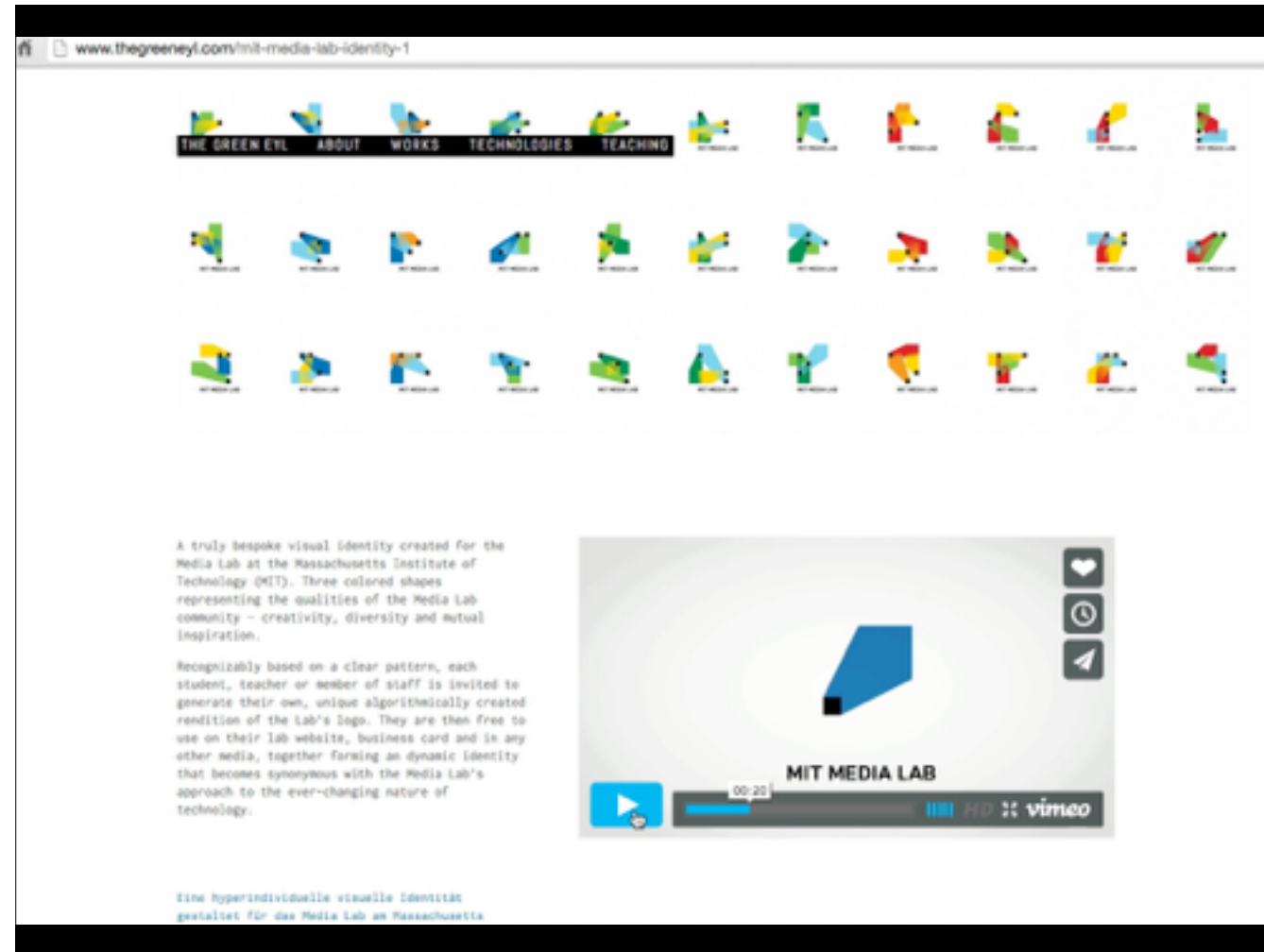
Janet Murray = the New Media Reader: Janet wrote this chapter "Inventing the Medium", p3-11  
p6  
 \* Procedural - execution  
 \* Participatory - manipulation by user  
 \* Spacial - embodying dimensionality, computer can present itself to us as a place, one which we enter and do not wish to leave  
 \* Encyclopedic - huge capacity  
 " as William Faulkner once described the aspiration of the novelist, the whole world in one sentence."

Lev Manovich

A large orange rectangle with a thin black border, centered on the page. The word "Variability" is written in white text in the center of the rectangle.

Variability

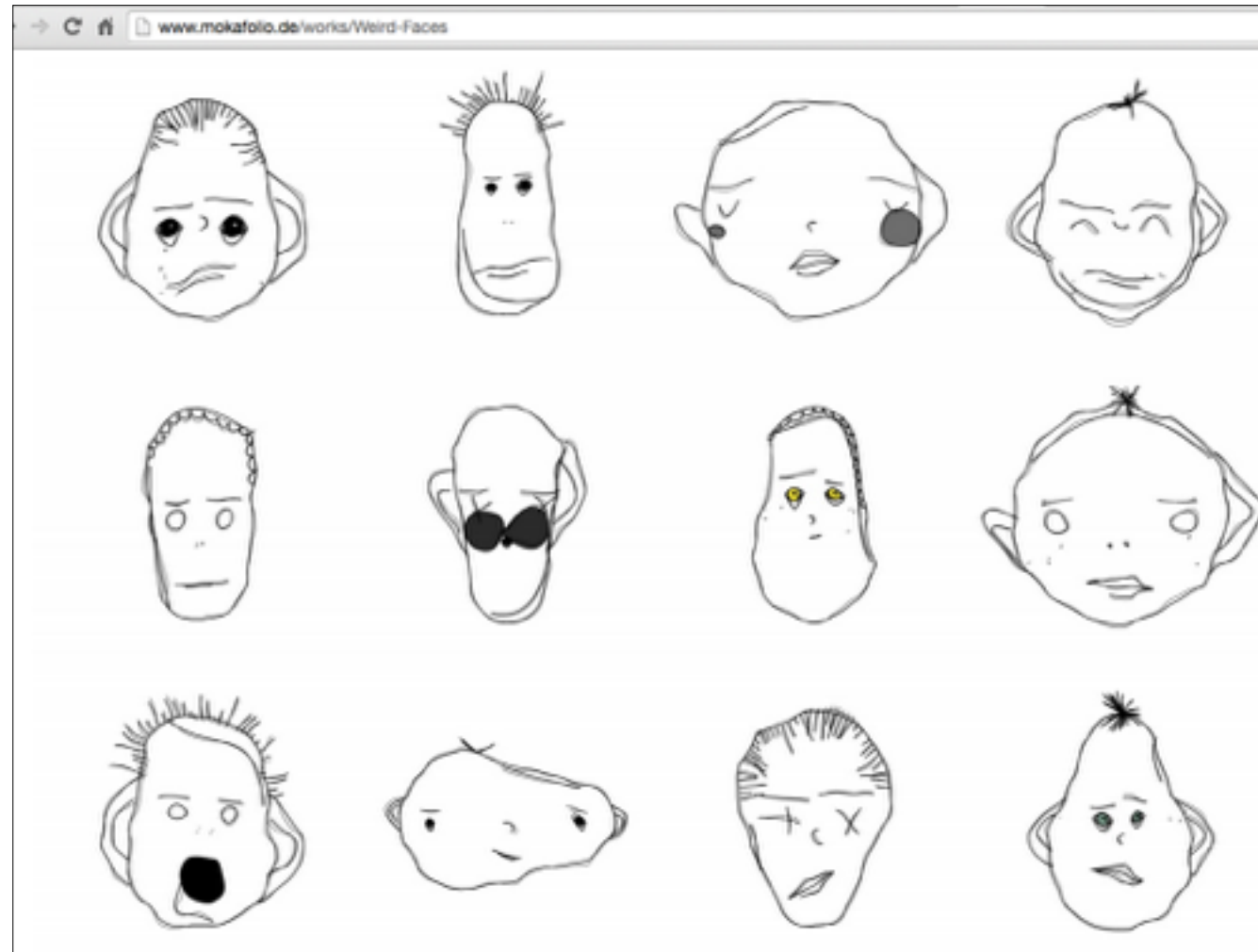
so what is programming for art  
dynamic media in the context of art



We already saw the MIT Media Lab branding program, written in Processing. An excellent example of variability. Varying a few parameters, then redrawing the system.

MIT media lab branding by TheGreenEyl and E Roon Kang made in Processing.

The new visual identity of the MIT Media Lab inspired by the community it comprises: Highly creative people from all kinds of backgrounds come together, inspire each other and collaboratively develop a vision of the future.



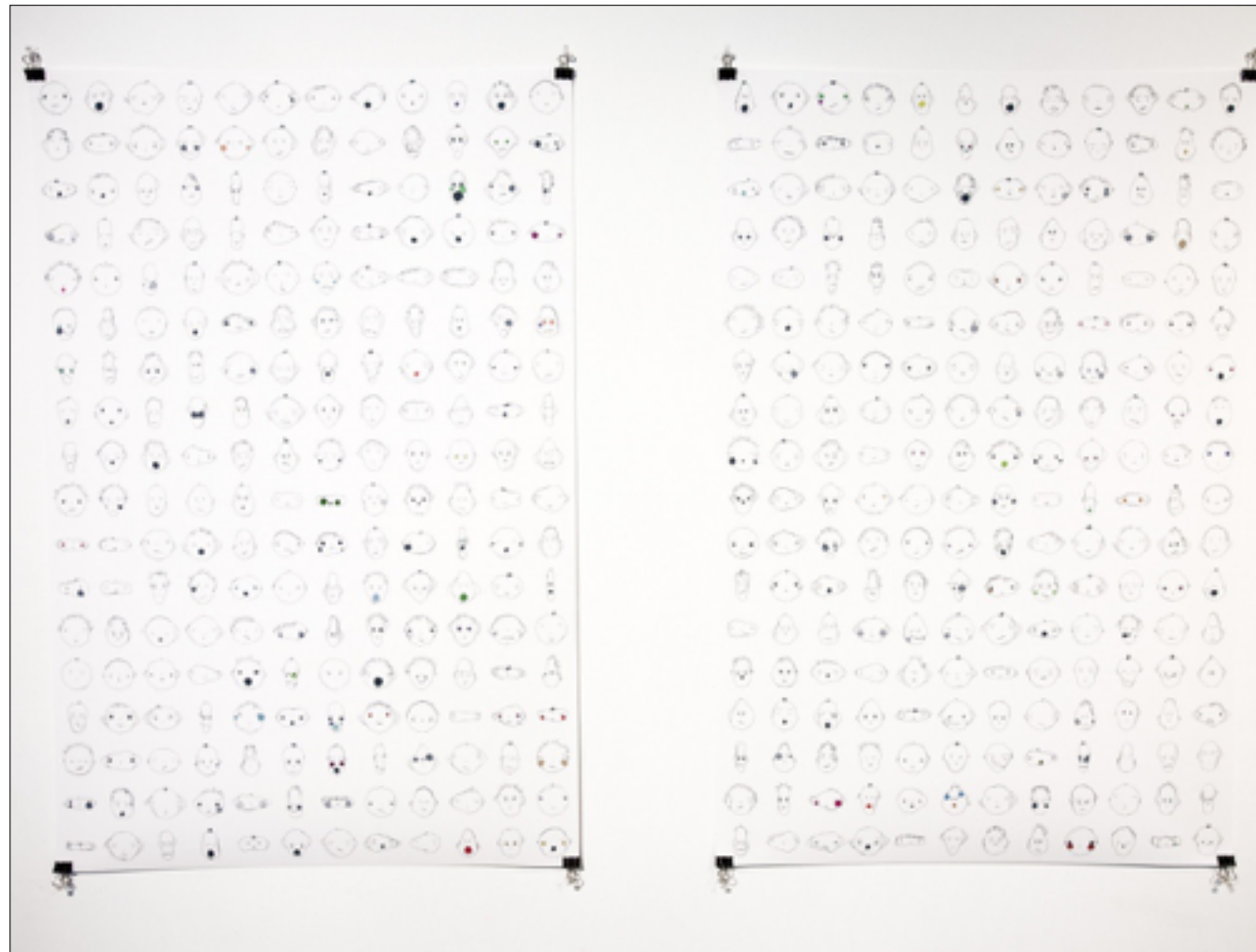
Taking another look at Weird faces by Matthias Dorfelt (written in paper.js). He has created a system for drawing faces, and then varies parameters to his system. Eye type, color, size, face type, hair direction and size etc...

Weird faces by Matthias Dorfelt created in paper.js

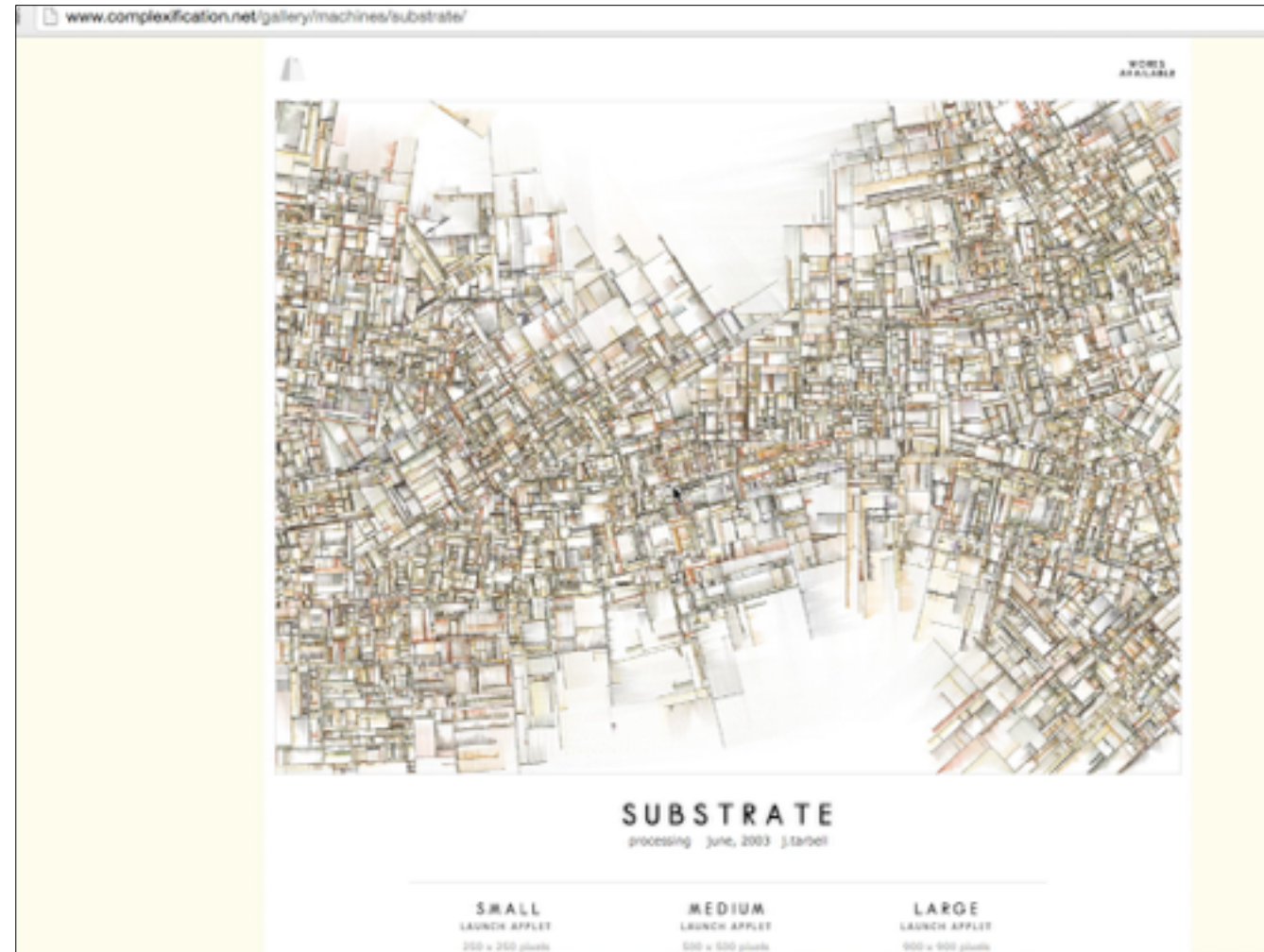
<http://www.creativeapplications.net/javascript-2/weird-faces-study-by-matthias-dorfelt-using-paperjs/>

<http://www.mokafolio.de/#!project=21>

<http://www.mokafolio.de/works/Weird-Faces>



his final piece, is actually just printed out faces from his algorithm, with random parameters fed to the computer to generate each sheet.



And we already saw Substrate by Jared S Tarbell. Think of this piece in terms of variability. Each printed work, is just the result of the computer running with random changes in the parameters, the set of rules is always the same. A line is drawn at a random location, if it hits another line, two more lines are started.

<http://www.complexification.net/gallery/machines/substrate/>

from "Processing" the book

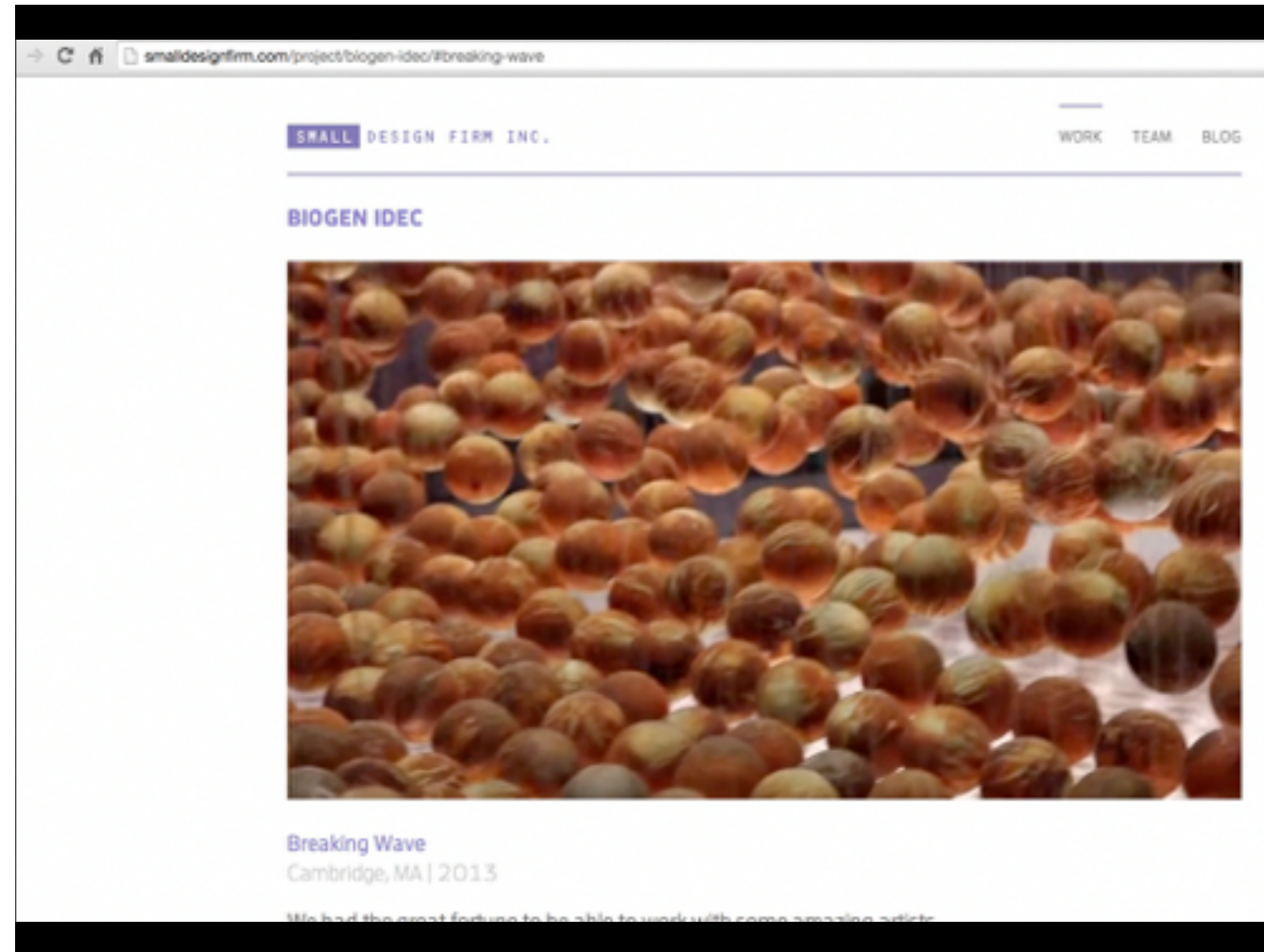
Substrate beings similarly with an empty rectangular region. It has been compared to crystal formation and the emergent patterns of urban landscapes. A single line (known internally as a "crack" since the algorithm was inspired by sunbaked mud cracks) begins drawing itself from some random point in some random direction. The line continues to draw itself until it either (a) hits the edge of the screen or (b) hits another line, at which point it stops and two more lines begin. The one simple rule used in the creation of new lines is that they begin tangents to existing lines. This process is repeated until there are too many lines to keep track of or the program is stopped.



A large orange square with a thin black border, containing the text "Time+Motion" in white.

Time+Motion

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And we already saw Small Design Firm's Breaking Wave at BioGen headquarters. But start to think about in terms of variability. There is a system, and parameters that may vary, the height of each ball.

But there is also the aspect of time. How fast do the balls move? Do they all move at once? How does this influence our experience? How would the experience change if the balls had to return to the ceiling each time we wanted to change shapes, like a bowling alley pin reset?

Small Design Firm, Plebian Design and Hypersonic Engineering for the Biogen IDEC headquarters lobby

<http://www.hypersonic.cc/projects/breakingwave>

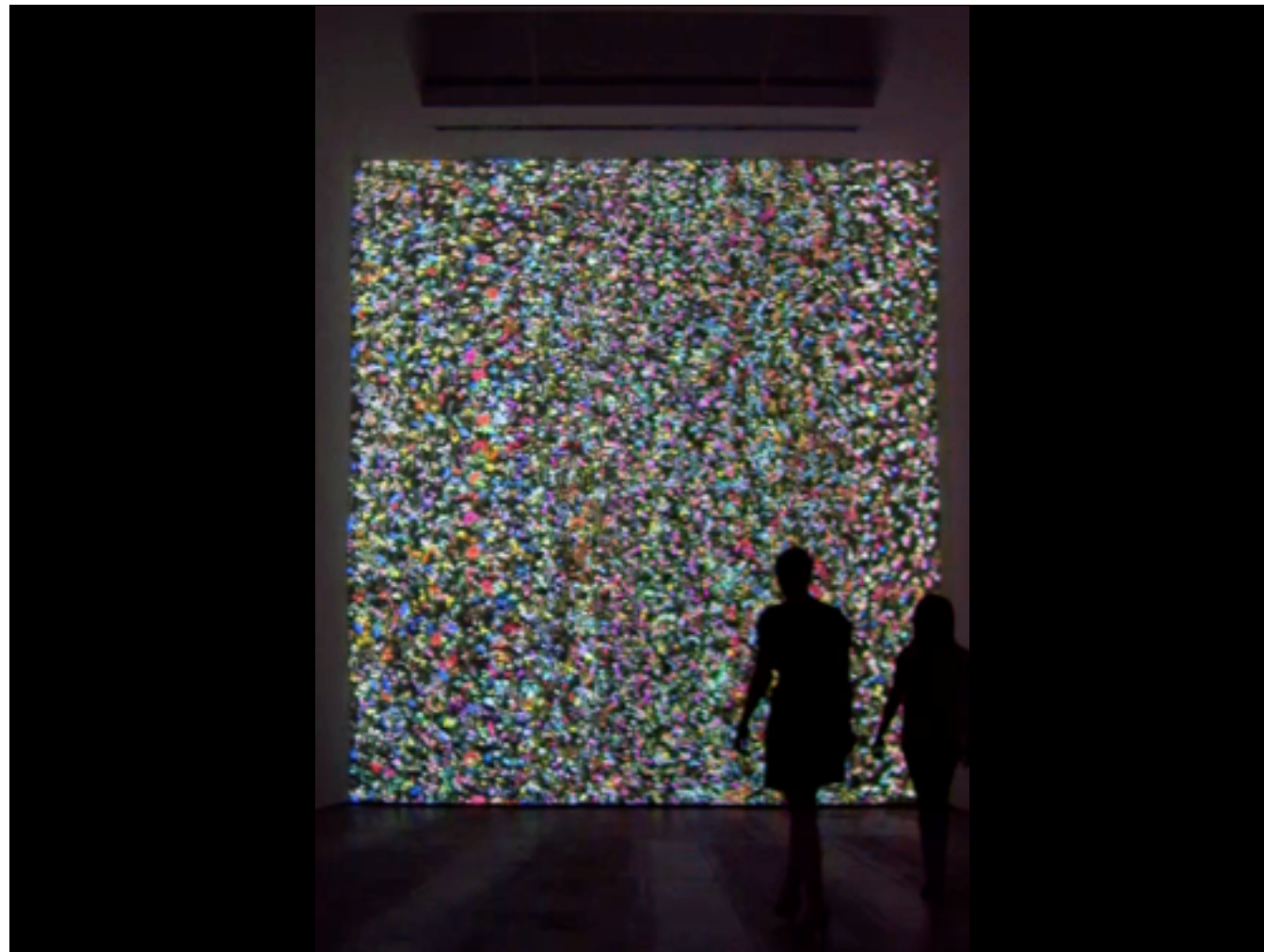
<http://smalldesignfirm.com/project/biogen-idec/#breaking-wave>

Heather Hansen  
The Value of a Line  
—Ochi Gallery



See Heather Hansen exploring drawing with her body. Think about time. What is drawing now, how does the paper change over time? How does the narrative unfold?

see also Janine Antoni who draws with eye-lashes and hair



Daisy Bell by Jennifer Steinkamp 2008

poisonous flowers fall down the screen

[http://jsteinkamp.com/html/body\\_daisy\\_bell\\_08.htm](http://jsteinkamp.com/html/body_daisy_bell_08.htm)

<http://jsteinkamp.com/quicktime/html/db.html>

Artist: Jennifer Steinkamp

Title: Daisy Bell

Date: 2008

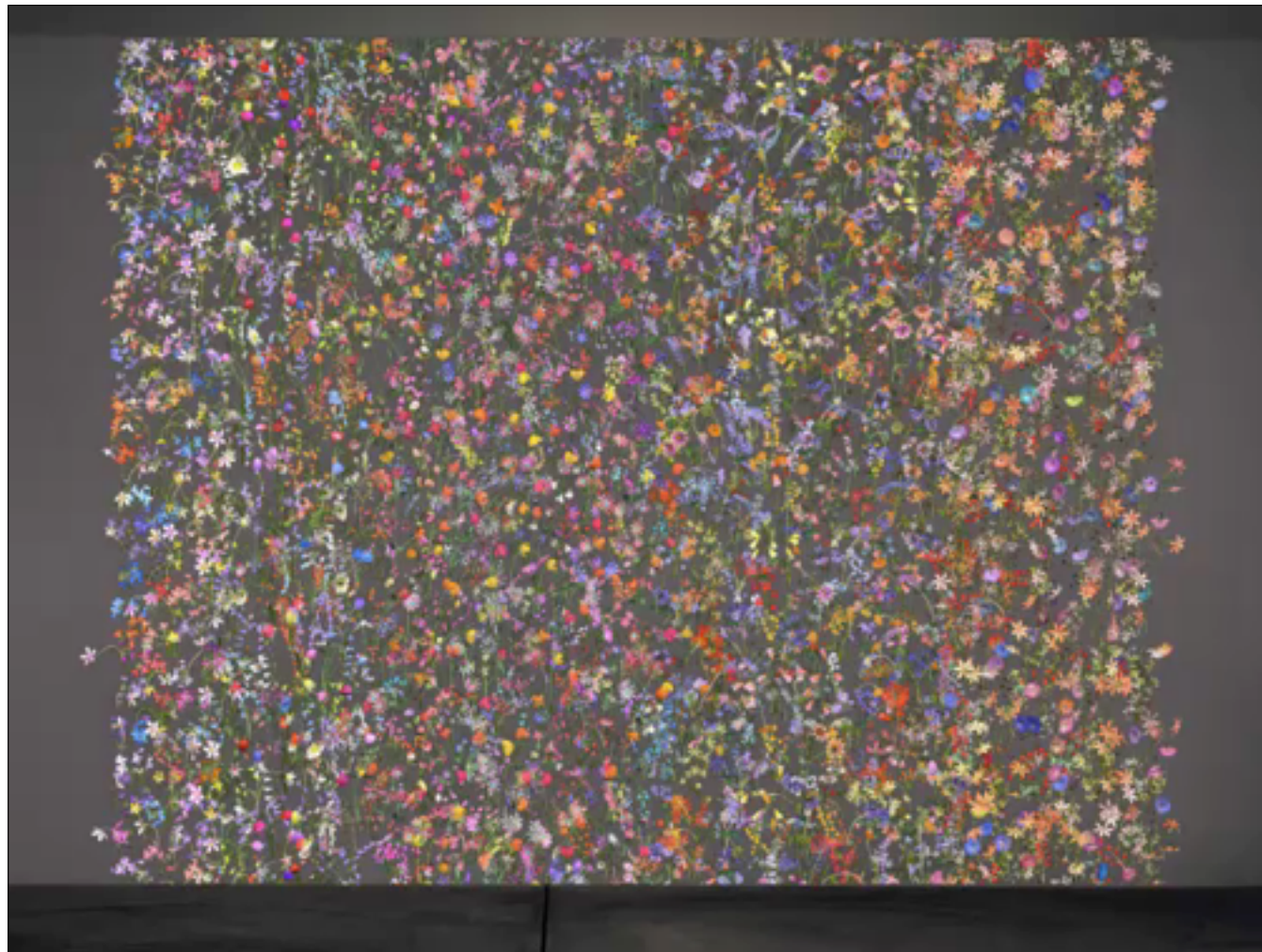
Dimensions: variable, approx. 8-26 feet high, vertical, fits between edge of floor and ceiling.

Equipment: Mitsubishi projectors, Dell OptiPlex or Logisys computers.

Photo Credit: Robert Wedemeyer, Courtesy Lehmann Maupin, NY

Exhibition History:





<http://jsteinkamp.com/quicktime/html/db9.html>