PART V
ERROR AND NOISE

SEDUCTIVE ERRORS

A Poetics of Noise

Mark Nunes

The devices, interfaces, and protocols that drive our day-to-day new media practices, it would seem, are informed by a powerful, yet often unexplored assumption: We want to find what we are looking for.

Computers are, after all, elaborate control devices—a "control revolution"[1] technology applied to an everyday life that is increasingly caught up in the flow of information across global networks. The process control systems that grew out of nineteenth-century manufacturing depended upon an abstraction of "information" from material production and flesh-and-blood labor—information that could then be "programmed" for greater efficiency. The computer is a tool of this world, a world that by the mid twentieth century, with the rise of cybernetics as a science of control, promised to regulate and correct all processes toward their purposive ends. Through greater control of information, systems could capture any deviation from intended results as feedback used to correct and maximize performance.[2] We know what we are after, such a control logic declares. And in such a world, "error" serves a very definite purpose: to provide feedback on the deviation of outcomes from a system's goals and intentions.

What happens, however, when error *escapes* its own purpose? What of the *errant error*—a heading that leads us decidedly off course? Error captured serves its purpose, yes. But error *uncaptured* challenges the logic of process control systems by threatening closure with the unexpected and the unintended. In this regard, failures, glitches, mistakes, and misfires suggest a creative potential outside of purpose: a potential we might hazard to call a "poetics of noise."

My reading of poetics in this context owes much to Umberto Eco's discussion of information theory in *The Open Work*, in particular, his reading of poiesis as creative opening.[3] Drawing on Claude Shannon and Warren Weaver's information theory, Eco argues that communication *reduces* information in its desire to actualize signal at the expense of noise. In contrast, poetics *generates* information by sustaining a sense of uncertainty between an actual message sent and the *possible* messages received.[4] Shannon and Weaver call this measure of possibility *equivocation*: "an undesirable uncertainty" that the message received was the message sent.[5] Error, in Shannon's account, no longer merely measures the gap between the actual and the intended, captured as feedback; rather, it serves as a *signature of possibility* within the total information of a system.

In effect, noise is errant signal—what Weaver calls "spurious information."[6] As such, noise is *additive*, yielding a proliferation of choices in possible messages received. To speak of a poetics of noise, then, is to foreground the creative potential of these unintended openings. Equivocation marks an experience of the virtual—a "potential of

potential," in the words of McKenzie Wark, that signals an indetermination that exceeds systematic control.[7] Noise in all its forms—pops, glitches, hacks, and jams—offers a creative potential that exceeds programmatic control by *widening* the gap between the actual and the possible. Noise and error, in this regard, might "take away" from a system's efficiency and performance, but in doing so, these errant signals help reveal the potential of potential. A poetics of noise celebrates the creative potential of going astray.

As such, error is indeed *seductive*, offering up an unintended opening that threatens (with a suggestion of pleasure as well) to lead us astray. As a counterpoint to control technologies, a poetics of noise fails as a feedback mechanism by refusing operational closure; and in doing so it marks the creative potential of equivocation. And there is certainly precedent for considering the artistic potentials of error and noise—Luigi Russolo's Futurist "Art of Noises,"[8] for example, along with a wide range of early twentieth-century engagements with collage and happenstance.[9] Likewise, error in the form of unintended sound—from John Cage's *4'33"* to more recent *glitch* music—provides the basis for what Kim Cascone has called "the aesthetics of failure" in the contemporary computer music scene.[10] With the rise of computer art and other works native to new media, the failure of a control system serves to reveal the creative potential of "aberrant" output.[11] In each instance, a failure in the logic that insists we want what we are looking for reveals a seductive potential beyond the constraints of intention, purpose, and control. Error and noise, in effect, reveal a mode of artistic production that simultaneously exceeds and falls short of the control logic inherent in digital media.

The two projects included in this section offer differing takes on a poetics of noise, and in doing so attempt to explore the creative potential embedded in a "failure" of control logic. At a fundamental level, Ethan Ham and Benjamin Rosenbaum's *Tumbarumba* project exploits the artistic potential of irruptive error. The browser add-in, which embeds fragments of short stories in the text of requested webpages, *corrupts* transmission with "spurious information" that results in a heightened experience of equivocation for the end-user. The "almost vertigo-like experience of stumbling upon a nonsensical sentence in the midst of what seems to be a straightforward online text" gives rise to an opening—not merely an invitation to click on a link that will lead readers to the intruding short story, but an opening onto other, unintended, and fortuitous renderings of the corrupted text. As Benjamin Rosenbaum describes the project, these noisy intrusions offer "a secret door which should not be there." Error creates an "open work" on pages where it is least expected, priming users toward a reading strategy appropriate for a poetics of noise.

With Fernanda Viégas and Martin Wattenberg's project *Luscious*, an aesthetics of the unintended expresses itself through the use of algorithms to produce abstract compositions. By transforming images—in this instance, commercial photography—into a data field, and then using visualization techniques to re-present those images as color weightings, *Luscious* attempts to create, in the words of Viégas and Wattenberg, a "visual anagram" from commercial photography. As a generative work of art, *Luscious* is less concerned with equivocation per se than with a set of (ab)errant practices that decode images into color fields. Each image generated is, in effect, an aberration to the extent that it offers up as an aesthetic object a visualization of embedded data that was never meant to be represented as such. As a generative work of art, its algorithmic manipulations allow for a celebration of spurious information. The ad photographs "contain" and thereby *communicate* these data, but the artistic transformation of the message results in errant output that radically differs from the intended signal.

9 LUSCIOUS*

Fernanda Viégas and Martin Wattenberg

Key Words: Averaging, Bucketing, Color Field Painting, Color Theory

Project Summary

Luscious is a celebration of color and composition. The piece pays homage to fashion designers and photographers, those who create rousing images of light and color that fill the pages of glossy magazines. These elements are the departing point for abstract composition. The goal is to create self-standing, forceful arrangements of color that are far removed from photographic content while still referring to the intended mood.

Situating Luscious Within the History of Art

The power of abstract color to convey emotion has deep roots in art. Movements such as Color Field Painting in the 1940s and 1950s altered the use of color from a supporting element of design to the conceptual focus of painting and composition.[1] Kenneth Noland's concentric-circles paintings (*Targets*) take this preoccupation with color primacy to new ground, exploring the relationship between color and form, creating a new visual language.[2]

The idea of turning photographs into grids of abstract color is not new either. Chuck Close's portraits explore a wide range of pictorial possibilities: from faithful, photorealistic brushwork to more abstract, roughly executed color-ring arrangements.[3] Close's concern with surfacing the content of the original photograph, however, marks a point of divergence for *Luscious*. Whereas the former thrives on the viewer's recognition of the subject matter, the latter is adamant about abstraction from content.

Color has also found a place of prominence in digital and new media art. Most work has sought to create color "aggregates" out of content. Shahee Ilyas' *Flags by Colours*, for instance, shows the proportion of colors in country flags around the world.[4] The result is a matrix of 224 pie charts, each representing color usage on an individual flag.

In addition, artists have turned color into a narrative device. In *The Top Grossing Film of All Time*, Jason Salavon reduces each frame of the movie *Titanic* to a single colored pixel.[5] These pixels are laid out sequentially, forming a storyline in pure color.

Luscious partakes of this rich tradition of color and abstraction with a slightly different process and focus. Rather than using reductive methodologies, *Luscious* is a generative work. Starting from a photograph, the goal is not to aggregate all information in the image to a single data point but rather to produce an alternative, abstract composition based on the colors in the original picture.

Technical Perspective: How Was *Luscious* Built?

One of the hallmarks of new media art is the interplay between artistic aspirations and technological possibilities. Our goal for *Luscious* was to mute the meaning of a picture and divert attention from composition. By taking an image and rearranging it—that is, making a kind of visual anagram—we sought to clarify the music of hues and tones.

Although this process subtracts information, the opposite is true from the point of view of the computer. In fact, to make a meaningful visual anagram requires adding a set of invisible scaffolding (what a computer scientist would call "data structures") to each image. Like any scaffold, these structures disappear from the final work, but have a profound effect on its shape. For that reason, and because this process sheds light on some of the unique properties of new media art, we'd like to describe our method in detail, including technical details.

What Is a Color?

Some of the smartest philosophers and scientists have debated the ontology of color (what a color *is*), and arguments about color theories continue to this day.[6] But for better or worse, images on a computer short-circuit these arguments by reducing vision to ones and zeros. To be precise, in most common image formats today, a picture is divided into tiny square pixels represented by the three numbers, ranging from 0 to 255, describing the levels of red, green, and blue light. In this system, for example, the triple (0,0,0) is black, while at the other end of the spectrum (255,255,255) is white. The numbers follow the laws of additive color, so the triple (255,255,0), which contains bright red and green but no blue, is an electric yellow. That's all there is, in the computer's world, to color.

Given the simplicity of model, you might think that it would be easy for a computer program to find the essential colors in any digital image. For example, you might tell the computer to list all the colors—the red, green, blue triples—in order of frequency of occurrence, and pick five or ten that appear most frequently. The trick is that simple colors like pure black, white, or yellow rarely occur in photographs. Instead, each pixel is slightly different, with a (203,183,102) value perhaps having a neighbor of (201,179,99). That means that most photographic images contain thousands of different colors, with no one dominating the color field.

To turn thousands of colors into a representative handful we had to find a way to group related colors into clusters. Before describing our method fully, we'll describe a few ways that did not quite work, but that did provide some intuition for our final technique.

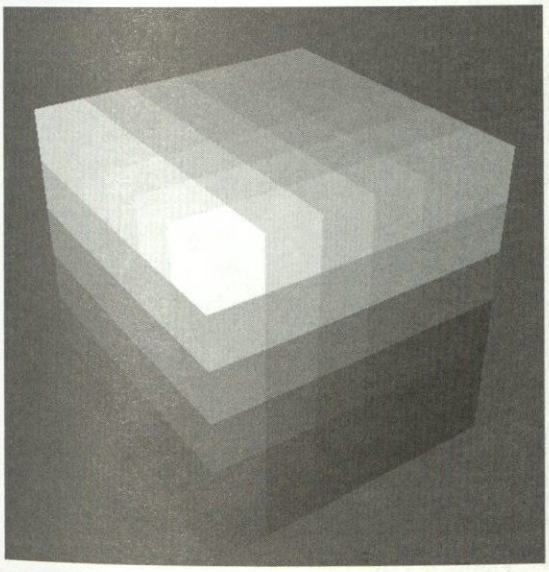

Figure 9.1 The RGB color model mapped to a cube.

How Do You Pick Out the "Key Colors" of an Image?

One way of combining color triples is *averaging*. We could look through all the pixels and find the average red value, the average green value, and the average blue value. This procedure defines an "average pixel" color to represent the image. We tried this, and the results were interesting but uninspiring. Simple averaging turned dramatically colored images into uniform beige or khaki.

A second way of getting around the problem of having too many colors is *bucketing*. Allowing 256 different levels of red, green, and blue means that there are potentially millions of possible colors. This problem has turned up in many technical situations. For example, in the 1990s, when web browsers first became popular, many computers could not display this many colors, so browser authors simplified by creating a special palette of "HTML colors" where there were only six possible values for red, green, or blue, resulting in only 216 different possible combinations.

We could have tried the same idea, changing the values of all the colors in a picture to nearby round numbers. That would change a triple like (248,251,21) into the familiar electric yellow (255,255,0). The problem, as the first generation of web designers will happily complain to you, is that the bucketed palette is *too* simple: using these basic colors obliterates the kind of chromatic subtlety we were hoping to visualize.

Although neither bucketing nor averaging work by themselves, by combining them we discovered a useful technique. Our final method began by creating 216 "buckets" of color, one for each of the three sections of the color cube corresponding to the familiar HTML colors.

Our program—written in Java, familiar to many digital artists as the language of the processing system—adds each pixel in the input image to its corresponding bucket. After all the pixels have been added, some buckets will be more full than others. For a typical image, if we plot the buckets that have more pixels as bigger cubes, we would have a picture that looks something like Figure 9.3.

Our program then looks for buckets that are bigger than any of their neighbors in three-dimensional space. The software then averages the values of all the pixels in these "key buckets" to arrive at a few final colors.

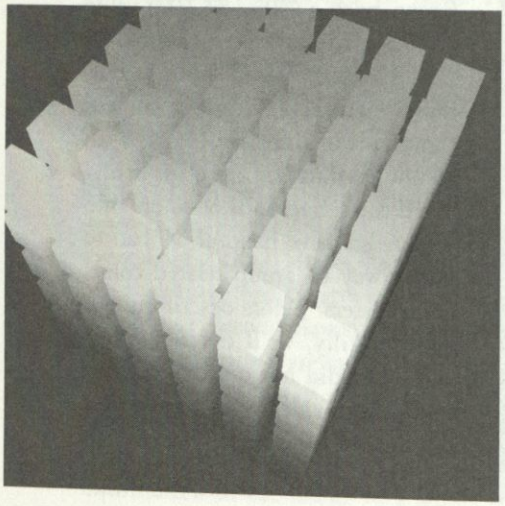

Figure 9.2 Buckets of color.

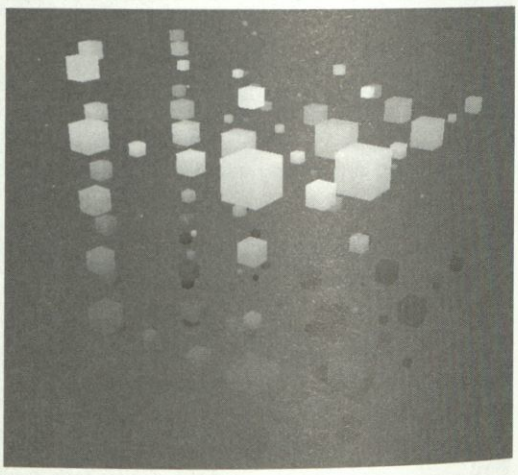

Figure 9.3 Buckets with more pixels represented as bigger cubes.

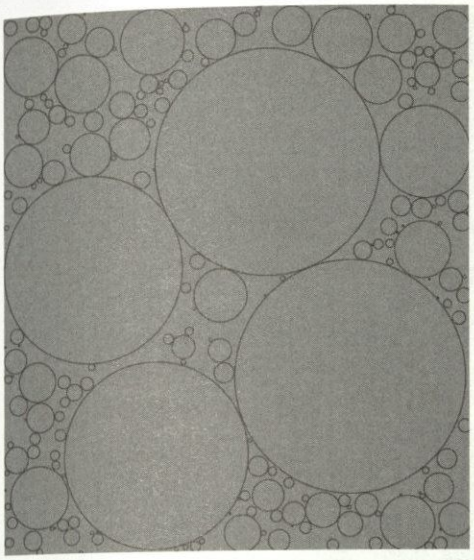

Figure 9.4 A circle template.

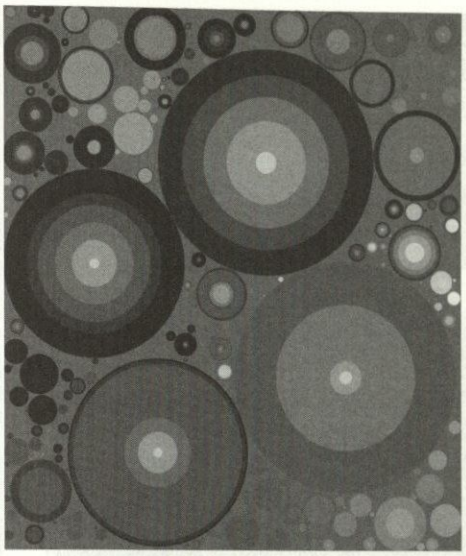

Figure 9.5 The resulting image where color is filled in by the software program developed for *Luscious*.

What Do You Do With Key Colors Once You Have Them?

In the final step we arranged these colors into concentric circles. For each image to which we applied the *Luscious* method, we divided the image into a set of non-overlapping circles to create a template for the program to fill. Then the program picked out key colors in each of the circles, and drew them in concentric rings.

Luscious Gallery

Working with a set of 26 advertisements from women's fashion magazines, the *Luscious Gallery* focuses on five different lines of products: clothing, accessories, cosmetics, travel, and drinks. Each composition in the gallery combines ads from one of these categories. *Italian Blues* displays clothing advertisements by Valentino, Gucci, and Armani. Even though the focus of the composition is the color blue, each designer invites different tones to his creations. While Valentino dwells on fresh turquoise shades in harsh contrast with bright whites, Gucci mixes less-saturated blues with earthy hues, and Armani descends to a much darker palette allowing for the occasional sober blue.

Escape focuses on travel, using ads by Holland American Line, St. Regis Hotel, and Hawaii Islands as the starting point for the color compositions. Here the gentle blues and greens of water and mountains play against the starkness of St. Regis's black-and-white sophistication. Echoing the multiplicity of travel desires and expectations, the colors express the excitement of sunny days followed by glossy, edgier aspects of nights out.

In addition to "themed" compositions, our initial explorations included pieces that focused on a single brand. *Absolut Luscious* is a composition of three Absolut Vodka ads. Playing off the highly saturated, mostly monochromatic palettes, the piece evokes the vivid, eclectic nature of the original images. *Rosso Valentino* dabs a splash of the maestro's classic red against a pungent background of turquoise and black.

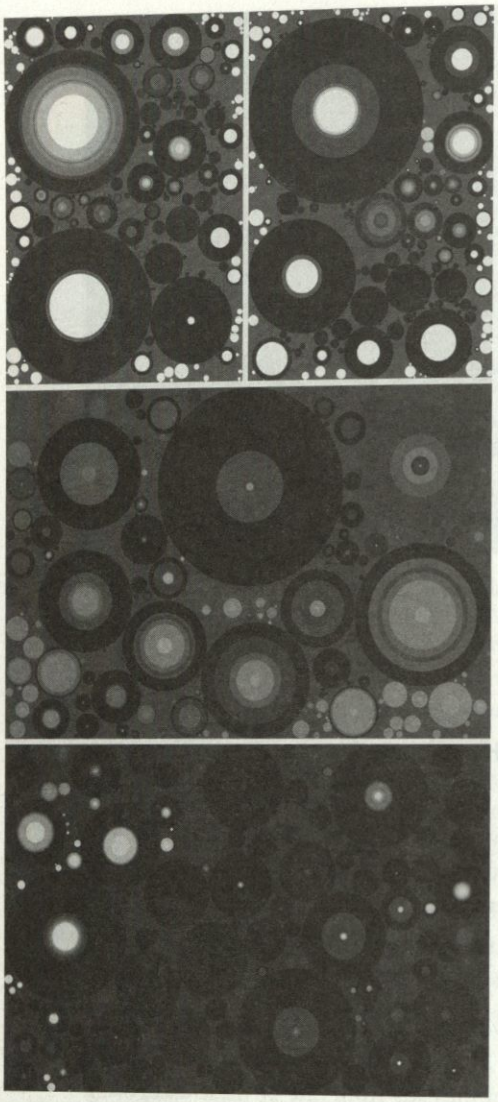

Figure 9.6 *Italian Blues*, part of the Luscious Gallery collection, Fernanda Viégas and Martin Wattenberg 2010.

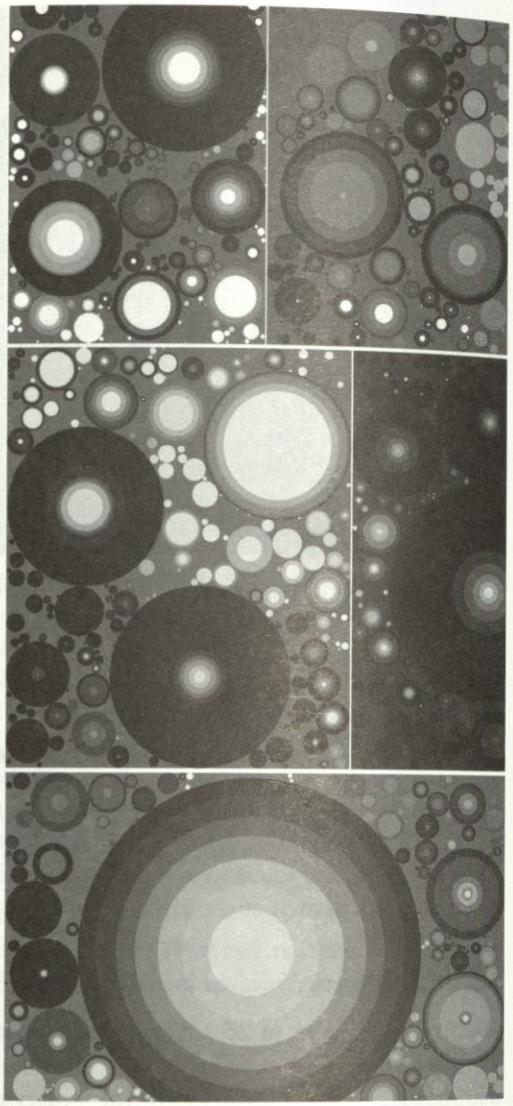

Figure 9.7 *Warm Glow*, part of the Luscious Gallery collection, Fernanda Viégas and Martin Wattenberg 2008.

By segmenting hues into peak regions, the concentric circles in *Luscious* also reveal subtle plays of color that might be lost when looking at the original photographic images. The Holland America Line advertisement, for instance, with its focus on an impossibly yellow pear, may conceal its special, blue lighting. This highlighting effect is underscored by a set of bluish circles in *Luscious*.

Outcomes and Conclusions

Looking at pictures in a magazine is like walking through a crowded market. You're confronted by so many people calling out for attention, so many simultaneous conversations, that it's hard to hear any one voice. Indeed, you may not even want to

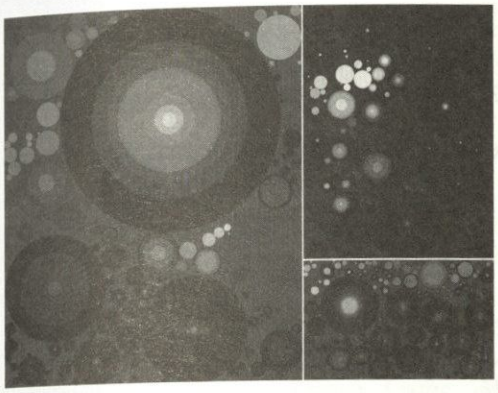

Figure 9.8 *Escape*, part of the Luscious Gallery collection, Fernanda Viégas and Martin Wattenberg 2008.

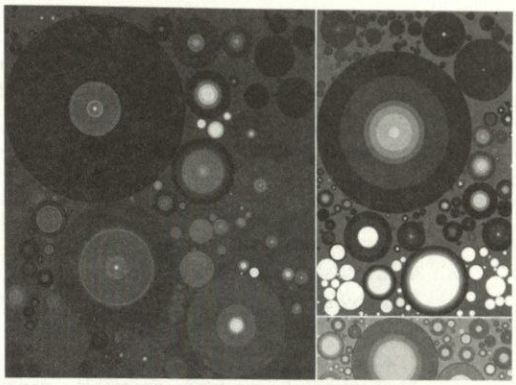

Figure 9.9 *Absolut*, part of the Luscious Gallery collection, Fernanda Viégas and Martin Wattenberg 2010.

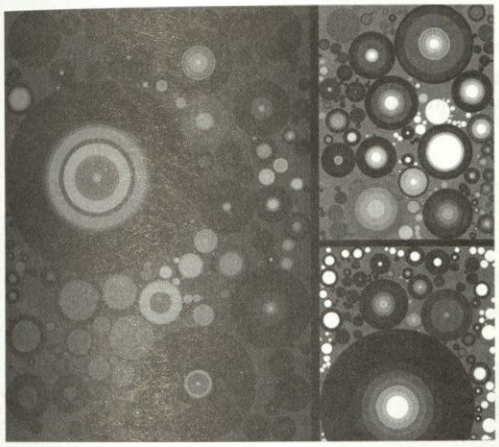

Figure 9.10 *Valentino*, part of the Luscious Gallery collection, Fernanda Viégas and Martin Wattenberg 2010.

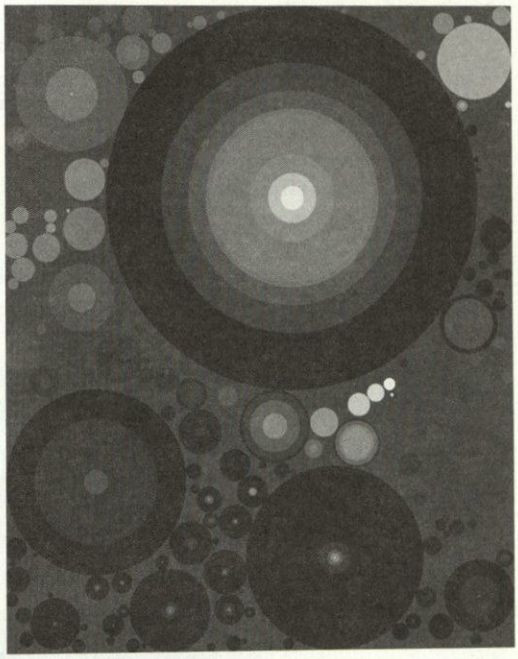

Figure 9.11 The final Holland America Line composition created for *Luscious* by Fernanda Viégas and Martin Wattenberg.

hear most of these voices—the nakedly commercial pitches, the clichéd words. Yet to cover your ears completely would be to surrender too easily.

Luscious is our solution to this problem: a kind of translucent filter, letting through aspects of mood and light while erasing traces of commercial ambition. This translucency is achieved through a mathematical transformation of the numbers that define digital color. The result of using this filter is a new view of familiar images.

We view the pieces in *Luscious* as highly emotional, which may seem paradoxical, given the coldly mathematical process behind them. After all, how can a computer program express emotions? The answer, at least in this case, is that the program is not inventing new feelings to communicate, but rather unmasking intensely human signals in danger of being drowned out by noise.

Notes

* Images associated with this chapter should be viewed in color. See the Routledge website, www.routledge.com/textbooks/9780415882224 or the artists' website, http://hint.fm/projects/luscious.

1. Colour Field Painting. Tate Glossary: www.tate.org.uk/collections/glossary/definition.jsp?entryId=71.
2. www.kennethnoland.com.
3. www.chuckclose.com.
4. http://shaheeilyas.com/flags.
5. http://salavon.com/TGFAT/Titanic.shtml.
6. See for example, Josef Albers, *Interaction of Color*, New Haven, CT: Yale University Press, rev. edn., 1975.

Bibliography

Albers, Josef. *Interaction of Color*. New Haven, CT: Yale University Press, rev. edn., 1975.

Links

http://hint.fm/projects/luscious/
www.tate.org.uk/collections/glossary/definition.jsp?entryId=71
www.kennethnoland.com
www.chuckclose.com
http://shaheeilyas.com/flags
http://salavon.com/TGFAT/Titanic.shtml

10 TUMBARUMBA

Ethan Ham

Key Words: Alternate Reality Game, Algorithm, Browser Add-on, Extratextual, Dadaism, Dialectic, Facial Recognition, Generative Art, Liminal, Ludic, Open Work, Surrealism, Tmesis

Project Summary

Tumbarumba is a web browser add-on that occasionally inserts a story fragment into a webpage as it loads. The result is an absurd sentence that is reminiscent of the Surrealist exquisite corpse game. If the inserted fragment is clicked upon, the entire story will emerge and take over the page.

Project Developer Background

In 2006, I was commissioned by New Radio and Performing Arts, Inc. to create *Self-Portrait*[1] for the Turbulence.org website. *Self-Portrait* centers on an automated search

Figure 10.1 "Little M@tch Girl" by Heather Shaw as displayed by *Tumbarumba* on the *New York Times* website.

through photographs that have been uploaded to Flickr.com. Using facial-recognition software to scan the photographs, *Self-Portrait* looks for faces that match my own to varying degrees of similarity. All of the matches are "false positives" because I do not actually appear in any of the photographs. To make these errors more likely, I adjusted the program to be generous in what it considers to be a facial match. I wanted the matching algorithm to have some rigor, but did not want it to be so accurate that matches were never found. My loose target was to find one or more matches per week. As of May 2010, the program has found 466 matches out of the 10.25 million photos it has evaluated (about 2.8 matches per week).

As *Self-Portrait*'s facial recognition software analyzes photographs, it occasionally detects a face where none actually exists—the machine equivalent of seeing shapes in clouds. I find these photographs particularly intriguing. It is as if a spark of imagination exists in the midst of the computer's cold logic. I also like the fact that there is no way to automate finding these errors of anthropomorphism as the machine has no way of knowing when it makes a mistake. So if I want to collect the erroneous images, I have to do the same sort of grunt work that I had relegated to the computer program for *Self-Portrait*.

These face-where-there-is-none photographs became the basis for *Anthroptic*,[2] an artistic/literary collaboration with author Benjamin Rosenbaum. Benjamin wrote eight interconnecting short stories to accompany eight of the anthropomorphized photographs.

Anthroptic was included in a show I had at the PS122 Gallery, New York. I was obliged to monitor the gallery during some of its open hours. While observing the gallery's visitors, I was struck (not for the first time) by how little time people spend

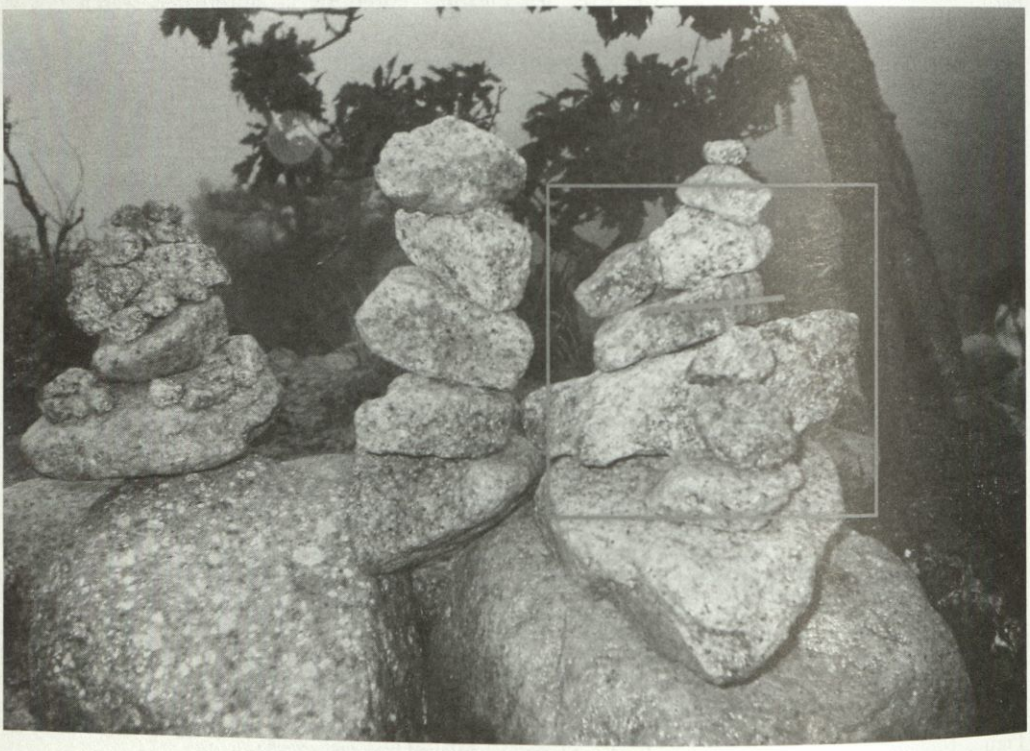

Figure 10.2 Detecting a face where none exists. Photograph by Pam Cash, CC-BY-NC-ND.

looking at art. An artwork that took months to create might capture a gallery visitor's attention for only a couple of seconds. In contrast, media such as literature, film, music, and dance are able to hold the gaze and attention of audiences far longer than an instant.

I wanted to create an artwork that lingers and demands attention. To do so, I decided that my next project would involve creating a web browser add-on. An add-on is a small program that extends a web browser's functionality. Building an add-on would enable me to embed an artwork into web browsers, which in turn would create an artistic space that people would enter every time they opened the browser. Even if my viewers only give the add-on/artwork a momentary consideration each time it is encountered, the time spent with the work would accumulate. In a way, I wanted my conceptual-leaning artwork to be on view for the same luxurious amount of time given to a poster on a dorm room wall.

Introduction to *Tumbarumba*

After we finished *Anthroptic*, Benjamin Rosenbaum suggested having a second collaboration in which we switch roles: instead of Benjamin using photographs as the raw material for short stories, I would use short stories as the raw material for an artwork. We combined that criteria with my proposal that our project take the form of a web browser add-on, and began brainstorming. What emerged is *Tumbarumba*,[3] an anthology/artwork add-on for web browsers.

Tumbarumba is indirectly named after the town of Tumbarumba in New South Wales, Australia, which inspired John O'Grady's poem "The Integrated Adjective" (also known as "Tumba-bloody-rumba"). The poem, in turn, popularized tumbarumba as a synonym for tmesis—the inserting of one word in the midst of another word or phrase. *Tumbarumba*'s title refers to this act of textual insertion: the artwork occasionally combines a fragment of a story (from a set of 12 stories by 12 authors[4]) with a sentence on a webpage that is being viewed. For example, this sentence was modified from one appearing on the *New York Times* website:[5] *Each team's top two draft picks share Caribbean heritage, but Giants General Manager or even a jack surgeon*. The first half of the sentence is news article text, while the text that follows the word "manager" comes from a short story by Heather Shaw.[6] "Manager" connects the two sentence fragments because it is a word that they share in common. The resulting absurd sentence is reminiscent of the Surrealist exquisite corpse game. If the viewer clicks on the inserted fragment, the entire story emerges and eventually takes over the page.

In much the same way that *Tumbarumba* was motivated by my desire to change the instantaneous judgment many bring to art, Benjamin wanted to transform the author–reader relationship:

> Towards this end, the surprise of the unexpected text—the surreal moment of "falling through" the fabric of the everyday, taking a wrong turn and finding yourself in a topsy-turvy otherworld—is central. It is about the interleaving of the fantastic, the imagined, and the intimacy of fiction into a different context. When we go intentionally to read a work of fiction, we are prepared and approach it defensively from a distance. We are ready to judge; we watch ourselves to see if we are entertained. When we read the news, or check how our stock portfolio is doing, or look at someone's blog or a product website, we are defensive in a different way. We do not expect the interior monologue of a character in a crisis to intrude in, for example, an analysis of the nutritional content

> of grains. And so there is the chance of creating this magical, liminal space in which the reader experiences a moment of true wonder, the kind they would experience if they *really* found a magic door in the back of a wardrobe, and not just read about it at a safe mediated distance.[7]

Umberto Eco describes our culture as being one in which our poetic enjoyment must be

> artificially induced by means of an intentionally suggestive construct ... not only do we have to be pushed to enjoy our freedom to enjoy, but we are also asked to evaluate our enjoyment, and its object, at the very moment of its occurrence.[8]

Tumbarumba is an attempt to disguise the artificial suggestive construct so that the reader is tricked into a non-dialectical moment of wonder.

Benjamin and I agreed that we wanted unexpected text to trigger this wonder via a mild conceptual crisis. As we worked on the project, however, we realized that we differed on how that crisis should resolve.

Tumbarumba's Flow

When a webpage loads, the *Tumbarumba* add-on decides whether or not it will attempt to manipulate the page's HTML code. The decision is essentially arbitrary and is determined by an algorithm that uses the page's content and a unique identifier associated with each installation of *Tumbarumba* as input.

The next step *Tumbarumba* takes is to check the webpage for any words that match a list of keywords for a particular short story. Each story's keyword list was created out of all of the words in the story that are not among the most common 300 words in the English language. This is an excerpt from the end of the keyword list for Heather Shaw's "Little M@tch Girl":

> vacant|vacation|vacations|vantage|vast|vial|vibrators|vividly|voided|vomit|waggled|walk|walked|wall|walls|wanted|ward|watched|weaving|wedging|Wednesday|week|weekend|weeks|wet|whatever|wherever|whole|whorls|whose|willing|wimpy|wine|winter|within|without|woman|wondered|wonderful|wood|wore|worked|workers|worried|worry|wounds|yearned|years|yellow|yesterday|yet|young|younger|zombie

If any of these words match one of the words on the webpage—for example "wine" in the keyword list matching "wine" in the text of a Wikipedia entry on "Rice Wine"—then *Tumbarumba* can proceed.

The add-on selects a sentence on the webpage that contains the keyword. It attaches the first half of the sentence (the words that precede the keyword) with the second half of the short story's sentence (the words the follow the keyword). The Wikipedia Rice Wine page is as follows:

> Rice brew typically has a higher alcohol content (18–25%) than wine (10–20%), which in turn has a higher alcohol content than beer (3–8%).[9]

When this entry is combined with the story's following sentence:

> This close, the burnt metal smell was nearly over-powering the other common Mission smells: wine, vomit, phlegm and feces.[10]

The result is the following hybrid text:

> Rice brew typically has a higher alcohol content (18–25%) than wine, vomit, phlegm and feces.

Along with changing the text, *Tumbarumba* also adds HTML code so that rolling over the inserted text causes the cursor to change to a pointer. If the viewer spots the inserted text and clicks on it, the next sentence from the story appears on the webpage. After a random number of clicks (and additional sentence fade-ins), the entire original page fades out, and a page containing only the text from one of the 12 stories fades in. The story's text is formatted using the webpage's original layout, which can greatly affect the story's linearity. Any images on the page are replaced with photographs from Flickr.com that are selected using tag searches that utilize the story's keyword list.

Errors and Alternate Realities

Benjamin and I do most of our collaboration via email because he lives in Switzerland and I am in New York City. During one of our brainstorming sessions, an idea emerged

Figure 10.3 "Temp" by Greg van Eekhout as displayed by *Tumbarumba* on the *New York Times* website.

that we developed into *Tumbarumba*. The idea was to create an artwork that "while it is engaged, the user would never be 100% sure if she's experiencing a story or if it is a real webpage." I wrote:

> I'm thinking that we provide the sort of experience that Oedipa Maas has in *Crying of Lot 49*—where she isn't sure what is real & what isn't. This is partly inspired by EA's *Majestic* ... but rather than just having hoax websites, we'd actually have the plugin hack the websites the user is browsing.

Majestic[11] was an alternate reality game. Alternate reality games blur the line between the game world and the real world and often extend beyond the usual game platforms. In the case of *Majestic*, the game's content included websites for imaginary organizations and businesses that players were expected to search for and stumble upon. Players were not always certain what was fictional and what was real. As a result, a number of players telephoned the Central Intelligence Agency, having mistaken its website for part of the *Majestic* game world. *Majestic* also automatically contacted players with faxes, Instant Messages, and threatening phone calls. Yes, the game actually would call up its players and threaten them.

Benjamin and I co-founded an online game company in the 1990s, so it is natural for us to incorporate some of the vocabulary of games into our projects. This is evident not only in the inspiration we found in alternate reality games, but also in how *Tumbarumba* can play out in a goal-oriented, game-like manner. *Tumbarumba*'s project website contains a grayed-out table of contents that lists all of the stories contained within the anthology. As each story is discovered, its title on the table of contents becomes an active link to the page on which the story can be found. Some *Tumbarumba* users enjoy the ludic challenge of actively hunting out and uncovering all of the stories.

However, this achievement-oriented approach to *Tumbarumba* undermines the disorienting experience that Benjamin and I would like the artwork to provide. We want users of *Tumbarumba* to have not only the pleasure of finding and reading the stories, but also the almost vertigo-like experience of stumbling upon a nonsensical sentence in the midst of what seems to be a straightforward online text.

Artists who create generative art (art that is automatically created according to a set of rules) are often immunized against fully appreciating the results. Golan Levin once described generative artists as those who create the illusion of an algorithm having control.[12] Just as stage magicians are not mesmerized by their own tricks, generative artists can see through the mechanical trickery that creates the fiction of artificial creativity. Yet I am as susceptible as anyone to *Tumbarumba*'s effect. When reading Jason Kottke's blog, I was flummoxed by this piece of news:

> *Is Cropping A Photo Lying?*
> David Hume Kennerly took a photo of Dick Cheney and his family cooking a meal. Cheney is in the foreground on the right side of the frame, cutting some meat, not food—human bodies. Newsweek used the photo in their magazine, only they cropped out the family and just showed the former VP stabbing a bloody piece of meat with a knife to illustrate a Cheney quote about CIA interrogation methods. Kennerly cried foul.[13]

I re-read the part about Cheney cutting up human body meat several times, trying to make sense of it. Eventually, it occurred to me that this shocking news might actually

be *Tumbarumba*'s doing. Sure enough, rolling my cursor over the questionable phrase it changed to a pointer cursor, and clicking the phrase brought Kiini Ibura Salaam's "Bio-Anger" into view. *Tumbarumba*, triggered by the keyword "meat," had intervened and altered the phrase "cutting some meat while some other family members chat and bustle in the background."

Tumbarumba's textual manipulation is not always as effective (and amusing) as this example. Often the result is grammatically incorrect and nonsensical. However, it is not unknown for humans to write ungrammatical nonsense.[14] *Tumbarumba* sensitizes its users to textual absurdities—of which only a fraction are the effect of the add-on. This heightened awareness is as much of the artwork's experience as is its direct effects. As with any good alternate reality game, the effect can extend beyond the virtual world and into the physical. When I come across an awkward phrase in a physical book or magazine, I occasionally pause for a moment and think I should roll a cursor over the questionable text to see if it is an effect of *Tumbarumba*.

Seeing the Stories

When creating *Tumbarumba*, Benjamin and I were closely aligned in wanting the readers to have the experience of stumbling upon the stories. This can be seen in the invitation to participate that Benjamin sent to his fellow writers:

> Tumbarumba is a conceptual art project that will transform your fiction, creating weird, shocking, transient hybrids which intrude into the everyday, menacing or enticing readers with strangeness, before revealing your stories to them.
>
> Tumbarumba is a secret door which should not be there. Tumbarumba is a strange cave where your story will get secret powers. Tumbarumba will turn your fiction from an ordinary child into a bird, like the brothers in the fairy tale, and it will fly invisibly among us and readers will find it where they least expect it.
>
> Some will stumble upon it. Some will seek it out with grit, luck, and perseverance. But each reader will have to find each story themselves.[15]

Benjamin was particularly interested in the fact that the contributing authors did not know the context in which their works would be seen. Consider how Kafka's *The Metamorphosis* (1915) might be perceived if it were in a book that had the trappings of science fiction (such as a rocket ship on the cover) as opposed to being presented as serious literature.[16] The extratextual trappings in which a story is encased greatly impacts how it is read. When presented as literature, we might view Gregor Samsa's transformation into a giant beetle as metaphor. If presented as science fiction, then there is the expectation that Samsa's condition has a specific cause (perhaps an alien virus) that will prove to be integral to the plot. Authors usually know the context in which their work will be read and will attempt to "come up with a text that satisfies and subverts these expectations."[17] *Tumbarumba*'s contributing authors did not know the form that the project would take, and this lack of knowledge affected what they wrote. Tim Pratt, for example, said that he suspected it would be a weird project, so he wrote a weird story: "Merely knowing it was experimental—not even knowing the parameters of the experiment—made me feel free to write something more experimental."[18] Similarly, Haddayr Copley-Woods wrote:

> I found it both freeing and challenging. I had no idea what the format would be, or what it was, exactly. So that made me be more willing to experiment. But it

> also made me want to really push my boundaries. I didn't want to have some story that didn't really push any boundaries, fictionwise, if it was going to be in a boundary-pushing form.[19]

Historical and Critical Perspectives

Tumbarumba has Dadaist and Surrealist lineages. As mentioned earlier in the chapter, *Tumbarumba*'s method of combining sentence halves evokes the classic Surrealist's technique/game of exquisite corpse. An exquisite corpse is a collaborative sentence or drawing that results from several independently created components (sentence fragments, sketches, drawings, or photographs) made without prior knowledge of individual contributions (beyond a few structural guidelines). The name, exquisite corpse, is derived from the sentence generated the first time the game was played: *Le cadavre exquis boira le vin nouveau* [*The exquisite corpse will drink the new wine*].[20]

The Surrealism of *Tumbarumba* goes beyond the surface similarity of technique. Surrealists desired to free creativity from conscious control and the users of *Tumbarumba* find themselves almost unwittingly participating in just such an exercise. When coming upon *Tumbarumba*'s juxtaposed sentence fragments, our pattern-obsessed brains automatically create unlikely narratives while trying to make meaning of the nonsensical words.

Tumbarumba is what Umberto Eco calls an "open work." An open work is one in which "every performance offers us a complete and satisfying version of the work, but at the same time makes it incomplete for us, because it cannot simultaneously give all the other artistic solutions which the work may admit."[21] An open work might offer a framework in which the text alters based on chance or performer/viewer/reader choice. Eco defines such a work as being in *motion* and says:

> the author offers the interpreter, the performer, the addressee a work *to be completed*. He does not know the exact fashion in which his work will be concluded, but he is aware that once completed the work in question will still be his own. It will not be a different work, and, at the end of the interpretive dialogue, a form which is *his* form will have been organized, even though it may have been assembled by an outside party in a particular way that he could not have foreseen.[22]

Tumbarumba is exactly such a work. Benjamin and I have established a set of rules through which webpage text is manipulated and the anthology's stories are formatted. We cannot predict when and how these rules will be realized, but recognize all the possible occurrences as being an intrinsic part of *Tumbarumba*. In a less literal sense, the authors who contributed stories also created open works. The authors were aware that they did not know the context in which their works would be read, and this awareness led to stories that were experimental and responsive to the unknown.

Conclusions and Outcomes

While Benjamin and I were both comfortable with how *Tumbarumba* manipulates a webpage's text, we were less united about how the stories themselves should be manipulated. Benjamin wanted to ensure the reader could ultimately access the story. He thought the moment of disruption should offer the possibility of opening a door to a new world. Through this door a reader might escape from reading about swine flu on

Washingtonpost.com and find herself in a story about compromised love or dueling monster cities. Benjamin viewed the project as giving the readers a journey, and therefore should also provide a coherent destination. A destination perhaps in the form of a link that would take the reader from the story being displayed using the current webpage's format (as in Figure 10.3) to a page on which it was displayed in a plain, straightforward manner.

I was opposed to ever presenting the story in the "right" way, which I saw as subverting the project's openness. I am enamored of how the stories mutate based upon a webpage's HTML code. It reminds me of Tristan Tzara's famous method for making a Dadaist poem by cutting up a newspaper article and randomly pasting it back together.[23] The machine is, to a degree, generating (or at least editing) the story. For me, one reason for using original, unpublished works in *Tumbarumba* was to ensure that there would be no extant, authoritative version of the stories.

I wanted the reader to be given the task of determining how to read the text—does the reader, for example, read the text in the sidebar first, or does she choose to start with what appears to be the main body of the page? I am not troubled by the possibility of a story being incoherent on a given page. The reader will eventually uncover it on another page, which would give another—perhaps clearer—formatting for story. I find it interesting that the reader is left to determine which, if any, was the right version.

If we were to present the user with a final, official version of a story, we would undermine the legitimacy of the add-on's chance-based story formatting. The rearranged texts would be cute and powerless. Instead of actively engaging with a collaged story, the reader would briefly glance at it before proceeding to the final authoritative destination.

Benjamin, in his role as editor, wanted to protect and do right by his writers just as much as I wanted to protect and do right by the artwork. Our compromise was to move forward with my preference with the understanding that we would revisit the decision if any of the contributing authors voiced a concern upon using the beta-test version of the add-on. None did, so *Tumbarumba* does not present the stories in a linear manner (unless they happen to be found on a webpage that has a linear format).

Notes

1. *Self-Portrait* can be seen at www.turbulence.org/Works/self-portrait.
2. *Anthroptic* originated in 2007 as an artists' book commissioned by The Present Group. An online version of the project is available at www.anthroptic.org.
3. *Tumbarumba* was commissioned by New Radio and Performing Arts, Inc. for the Turbulence.org website. It can be downloaded from www.turbulence.org/Works/tumbarumba or www.tumbarumba.org. A simulation of the add-on's effect can be seen (without installing the add-on) at www.tumbarumba.org/tutorial.html.
4. Benjamin Rosenbaum edited the anthology. The short stories are by Haddayr Copley-Woods, Greg van Eekhout, Stephen Gaskell, James Patrick Kelly, Mary Anne Mohanraj, David Moles, John Phillip Olsen, Tim Pratt, Kiini Ibura Salaam, David J. Schwartz, Heather Shaw, and Jeff Spock.
5. www.nytimes.com (accessed May 3, 2010).
6. Heather Shaw, "Little M@tch Girl," in *Tumbarumba*, ed. Benjamin Rosenbaum, 2008.
7. Benjamin Rosenbaum, email, April 24, 2010.
8. Umberto Eco, *The Open Work*, trans. Anna Cancogni, Cambridge, MA: Harvard University Press, 1989: 100.
9. http://en.wikipedia.org/wiki/Rice_wine (accessed May 31, 2010).
10. Heather Shaw, "Little M@tch Girl," in *Tumbarumba*, ed. Benjamin Rosenbaum, 2008.

11. *Majestic* was published by Electronic Arts and is considered one of the first alternate reality games. It premiered on July 31, 2001 and was discontinued in mid-2002. Though it was not commercially successful (garnering only 15,000 players), it was awarded "Best Original Game" at E3 in 2001 and received a "Game Innovation Spotlight" at the Game Developers Choice Awards in 2002.
12. "Interview by Carlo Zanni for *CIAC Magazine*." Online: www.flong.com/texts/interviews/interview_ciac (accessed May 31, 2010).
13. www.kottke.org/09/09/is-cropping-a-photo-lying (accessed September 18, 2009). Used with permission.
14. When he reviewed this chapter, Benjamin Rosenbaum pointed out (as a case in point) that I had erroneously written "for human to write ungrammatical nonsense" in this very sentence.
15. Benjamin Rosenbaum, email, May 8, 2008.
16. Samuel R. Delany discussed this idea using the same example of Kafka in an interview with Sinda Gregory and Larry McCaffery that was published in *Silent Interviews*, Hanover, NH: Wesleyan University Press, 1994.
17. Delany, op. cit.: 31.
18. Tim Pratt, Instant Message to Benjamin Rosenbaum, May 12, 2010.
19. Haddayr Copley-Woods, Instant Message to Benjamin Rosenbaum, May 12, 2010.
20. André Breton, *Communicating Vessels*, trans. Mary Ann Caws and Geoffrey T. Harris, Lincoln: University of Nebraska Press, 1990: 42.
21. Eco, op. cit.: 15.
22. Ibid.: 19.
23. Tristan Tzara, *Dada manifeste sur l'amour faible et l'amour amer*, 1920.

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Links

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