1 REVENGE OF THE TEXT

There is a room in the Musée d'Orsay that I call the "room of possibilities." The museum is roughly set up chronologically, happily wending its way through the nineteenth century, until you hit this one room with a group of painterly responses to the invention of the camera—about a half dozen proposals for the way painting could respond. One that sticks in my mind is a trompe l'oeil solution where a figure is painted literally reaching out of the frame into the "viewer's space." Another incorporates three-dimensional objects atop the canvas. Great attempts, but as we all know, impressionism—and hence modernism—won out. Writing is at such a juncture today.

With the rise of the Web, writing has met its photography. By that, I mean writing has encountered a situation similar to what happened to painting with the invention of photography, a technology so much better at replicating reality that, in order to survive, painting had to alter its course radically. If photography was striving for sharp focus, painting was forced to go soft, hence impressionism. It was a perfect analog to analog correspondence, for nowhere lurking beneath the surface of either painting, photography, or film was a speck of language. Instead, it was image to image, thus setting the stage for an imagistic revolution.

Today, digital media has set the stage for a literary revolution. In 1974 Peter Bürger was still able to make the claim that "because the advent of photography makes possible the precise mechanical reproduction of reality, the mimetic function of the fine arts withers. But the limits of this explanatory model become clear when one calls to mind that it cannot be transferred to literature. For in literature, there is no technical innovation that could have produced an effect comparable to that of photography in the fine arts."[1] Now there is.

If painting reacted to photography by going abstract, it seems unlikely that writing is doing the same in relation to the Internet. It appears that writing's response—taking its cues more from photography than painting—could be mimetic and replicative, primarily involving methods of distribution, while proposing new platforms of receivership and readership. Words very well might not only be written to be read but rather to be shared, moved, and manipulated, sometimes by humans, more often by machines, providing us with an extraordinary opportunity to reconsider what writing is and to define new roles for the writer. While traditional notions of writing are primarily focused on "originality" and "creativity," the digital environment fosters new skill sets that include "manipulation" and "management" of the heaps of already existent and ever-increasing language. While the writer today is challenged by having to "go up" against a proliferation of words and compete for attention, she can use this proliferation in unexpected ways to create works that are as expressive and meaningful as works constructed in more traditional ways.

I'm on my way back to New York from Europe and am gazing wearily at the map charting our plodding progress on the screen sunk into the seatback in front of me. The slick topographic world map is rendered two dimensionally, showing the entire earth, half in darkness, half in light, with us—represented as a small white aircraft—making our way west. The screens change frequently, from graphical maps to a series of blue textual screens announcing our distance to destination—the time, the aircraft's speed, the outside air temperature, and so forth—all rendered in elegant white sans serif type.

Figure 1.1. DOS Startup screen on an airplane.

Watching the plane chart its progress is ambient and relaxing as the beautiful renderings of oceanic plates and exotic names of small towns off the North Atlantic—Gander, Glace Bay, Carbonear—stream by.

Suddenly, as we approach the Grand Banks off the coast of Newfoundland, my screen flickers and goes black. It stays that way for some time, until it illuminates again, this time displaying generic white type on a black screen: the computer is rebooting and all those gorgeous graphics have been replaced by lines of DOS startup text. For a full five minutes, I watch line command descriptions of systems unfurling, fonts loading, and graphic packages decompressing. Finally, the screen goes blue and a progress bar and hourglass appear as the GUI loads, returning me back to the live map just as we hit landfall.

What we take to be graphics, sounds, and motion in our screen world is merely a thin skin under which resides miles and miles of language. Occasionally, as on my flight, the skin is punctured and, like

getting a glimpse under the hood, we see that our digital world—our images, our film and video, our sound, our words, our information—is powered by language. And all this binary information—music, video, photographs—is comprised of language, miles and miles of alphanumeric code. If you need evidence of this, think of when you've mistakenly received a .jpg attachment in an e-mail that has been rendered not as image but as code that seems to go on forever. It's all words (though perhaps not in any order that we can understand): The basic material that has propelled writing since its stabilized form is now what all media is created from as well.

Besides functionality, code also possesses literary value. If we frame that code and read it through the lens of literary criticism, we will find that the past hundred years of modernist and postmodernist writing has demonstrated the artistic value of similar seemingly arbitrary arrangements of letters.

Here's a three lines of a .jpg opened in a text editor:

ˆ?Îj€≈ÔIðfl¥d4·‡À,†ΩŃÎóªjËqsõëY”Δ″/å)1Í.§ÏÄ@˙’ʃJCGOnaå$ë¶æ
QÍ″5ô’5å
p#n›=ÁẄmÃflÓàüú*Êœi”›_$îÛµ}Tß‹æ′’[“Ò*ä≠ˇ
Í=äÖΩ;Í”≠Õ ¢ø¥}è&£S¨Æπ›ëÉk©ı=/Á″/”˙ûöÈ>∞∞ad_ïÉúö·€Ì—éÆΔ’aø6ªÿ-

Of course a close reading of the text reveals very little, semantically or narratively. Instead, a conventional glance at the piece reveals a nonsensical collection of letters and symbols, literally a code that might be deciphered into something sensible.

Yet what happens when sense is not foregrounded as being of primary importance? Instead, we need to ask other questions of the text. Below are three lines from a poem by Charles Bernstein called "Lift Off," written in 1979:

HH/ ie,s obVrsxr;atjrn dugh seineocpcy i iibalfmgmMw
er,,me”ius ieigorcy¢jeuvine+pee.)a/nat” ihl”n,s
ortnsihcldseløøpitemoBruce-oOiwvewaa39osoanfJ++,r”P[2]

Intentionally bereft of literary tropes and conveyances of human emotion, Bernstein chooses to emphasize the workings of a machine

rather than the sentiments of a human. In fact, the piece is what its title says it is: a transcription of everything lifted off a page with a correction tape from a manual typewriter. Bernstein's poem is, in some sense, code posing as a poem: careful reading will reveal bits of words and the occasional full word that was erased. For example, you can see the word "Bruce" on the last line, possibly referring to Bruce Andrews, Bernstein's coeditor of the journal L=A=N=G=U=G=A=G=E. But such attempts at reassembling won't get us too far: what we're left with are shards of language comprised of errors from unknown documents. In this way Bernstein emphasizes the fragmentary nature of language, reminding us that, even in this shattered state, all morphemes are prescribed with any number of references and contexts; in this case the resultant text is a tissue of quotations drawn from a series of ghost writings.

Bernstein's poem comes at the end of a long line of modernist poetry and prose that sought to foreground the materiality of language while allowing varying levels of emotion or sense to come through, throwing into question traditional notions of authorship. Stéphane Mallarmé's *Un coup de dés jamais n'abolira le hasard* (A throw of the dice will never abolish chance; 1897) is a poem whose words—and their placement on the page—have been subjected to chance, scattering stability, controlled authorship, and prescribed ways of reading to the winds. Words are no longer primarily transparent content carriers; now their material quality must be considered as well. The page becomes a canvas, with the negative spaces between the words taking on as much import as the letters themselves. The text becomes active, begging us to perform it, employing the spaces as silences. Indeed, the author himself reiterates this by claiming that "the paper intervenes each time as an image."[3] Mallarmé asks us to consider the act of reading—whether silent or aloud—as an act of decoding by actualizing and materializing the symbols (in this case letters) on a page.

Mallarmé's letteristic materiality inspires others to explore the same: whether it's Gertrude Stein's columns' eye-tickling repetitions or Ezra Pound's later *Cantos*, writers continued to treat words materially as the century progressed. Parts of Pound's epic are filled with

barely decipherable words comprised of dozens of languages jammed together with annotations and references to nonexistent footnotes:

> chih, chih!
> wo chih[3] chih[3]
> wo[4–5] wo[4–5] ch'o[4–5] ch'o[4–5]
> paltry yatter.[4]

It's a sound poem, a concrete poem, and a lyrical poem all rolled into one. It's both multilingual—bits of Chinese mingle with the "patter" of English—and nonlingual. Pound's constellations hold the page like calligraphic strokes begging to be spoken aloud. This is active language, reminiscent of the sorts of tag clouds that you see today on Web pages, language that begs to be interacted with, to be clicked on, to be highlighted and copied.

James Joyce's thunderclaps are the ten one-hundred-letter words scattered throughout *Finnegans Wake*, a six-hundred-page book of compound words and neologisms, all of which look to the uninitiated like reams of nonsensical code:

> bababadalgharaghtakamminaronnonnbronntonnerronnuonnthunntrobarrhounawnskawntoohoohoordenenthurknuk

Spoken aloud, it's the sound of thunder. This, of course, goes for the rest of *Finnegans Wake*, which, on first sight, is one of the most disorienting books ever written in English. But hearing Joyce read/decode a portion of *FinneganswWake*, most famously his own recording of the "Anna Livia Plurabelle" section, is a revelation: it all makes sense, coming close to standard English, yet on the page it remains "code." Reading aloud is an act of decoding. Taken one step further, the act of reading itself is an act of decoding, deciphering, and decryption.

Computer code, made up of numbers—1s and 0s—can't possibly have any literary or aesthetic value. Or can it? The twentieth century was brimming with number poems. Take this transcribed excerpt from a series called "Seven Numbers Poems" by British poet Neil Mills, published in 1971:

1,9
1,1,9
1,1,1,9
9
1,1,1,1,9
8,4
1,1,1,1,1,9
8,4
8,4

If you read it aloud, you'll find it transform from a seemingly random bunch of numbers into a complex and beautiful rhythmic poem. Mills states, "I believed that the meaning which emerged in the reading of poetry lay primarily in intonation and rhythm, and only secondarily in semantic content i.e. that what was important was how something was read, rather than what was said—the human voice functioning as musical instrument."[5]

The contemporary Japanese poet Shigeru Matsui writes what he calls "Pure Poems," which come closest to the alphanumeric binaries we find in computer code. Begun in early 2001 and currently numbering in the hundreds, they are based on the 20 x 20 grid of standard Japanese writing paper. Every "Pure Poem" consists of four hundred characters, each a number from one to three. Originally written in Chinese script, which figures the numbers one, two, and three with a single, a double, and triple dash accordingly, later poems are written with roman numerals.

1007-1103
III III I III I III I III III II II I II I I II II II I III
II II III II III II III II II I I III I III III I I I III II
III III II I I I II III I II I II I II II III I III II III
II II I III III III I II III I III I III I I II III II I II
I I III II II II III I II III II III II III III I II I III I
III I II I III III II II I II III II I I II I III III II I
II III I III II II I I III I II I III III I III II II I III
I II III II I I III III II III I III II II III II I I III II
I III II I I III II II III II I I I III II I II III II III

III II I III III II I I II I III III III II I III I II I II
II I III II II I III III I III II II II I III II III I III I
I I II I III I II II III II III III III I II I II III I II
III III I III II III I I II I II II II III I III I II III I
II II III II I II III III I III I I I II III II III I II III
I III II I I I II II I II II I III III I III II III III II
III II I III III III I I III I I III II II III II I II II I
II I III II II II III III II III III III II I I II I III I I III
III II II I III I I II I II II III I I III III II III I II
II I I III II III III I III I I II III III II II I II III I
I III III II I II II III II III III I II II I I III I II III

When Matsui reads these poems aloud, they're absolutely precise and hypnotic to listen to.

Read through the lens of these examples, a translation of a common computer icon graphic into its hex code has literary value. Here is the code that's rendered into the *W* that you see in your Web browser's address bar every time you load a Wikipedia page, called a favicon:

0000000	0000	0001	0001	1010	0010	0001	0004	0128
0000010	0000	0016	0000	0028	0000	0010	0000	0020
0000020	0000	0001	0004	0000	0000	0000	0000	0000
0000030	0000	0000	0000	0010	0000	0000	0000	0204
0000040	0004	8384	0084	c7c8	00c8	4748	0048	e8e9
0000050	00e9	6a69	0069	a8a9	00a9	2828	0028	fdfc
0000060	00fc	1819	0019	9898	0098	d9d8	00d8	5857
0000070	0057	7b7a	007a	bab9	00b9	3a3c	003c	8888
0000080	8888	8888	8888	8888	288e	be88	8888	8888
0000090	3b83	5788	8888	8888	7667	778e	8828	8888
00000a0	d6lf	7abd	8818	8888	467c	585f	8814	8188
00000b0	8b06	e8f7	88aa	8388	8b3b	88f3	88bd	e988
00000c0	8a18	880c	e841	c988	b328	6871	688e	958b
00000d0	a948	5862	5884	7e81	3788	1ab4	5a84	3eec
00000e0	3d86	dcb8	5cbb	8888	8888	8888	8888	8888
00000f0	8888	8888	8888	8888	8888	8888	8888	8888
0000100	0000	0000	0000	0000	0000	0000	0000	0000

```
*
0000130  0000  0000  0000  0000  0000  0000  0000  0000
000013e
```

A close reading of the favicon reveals an enormous amount of literary and aesthetic value, rhythmically, visually, and structurally unfolding like a piece of minimalist music. The first column of numbers logically progresses in steps from 0000000 to 0000090, then takes a short derivation into 00000a0—00000f0 before picking back up to 0000100. Patterns occur in the horizontal lines as well, with minute variations on 1s, 0s, 2s, 8s, and 4s in the first four lines, before shifting over to combinations of numbers and letters in the middle section, only to be broken up by several 8888s in the mid to lower portion. Squint your eyes and you can almost discern the *W* embedded within the square of the code. Of course, this isn't poetry, nor was it meant to be, rather it shows us that even seemingly meaningless and random sets of alphanumeric can be infused with poetic qualities. While this language is primarily concerned with transforming from one state to another (from code to icon), those same transformative qualities—language acting upon more language—is the foundation for much of the new writing.

There's a Flickr pool called "The Public Computer Errors Pool" that documents what I experienced on my flight multiplied a hundred.[6] It's a fascinating set of photos. You see a digital elevator button displaying a question mark instead of a number, ATMs in reboot mode, subway advertisement signs with "out of memory" error messages, and flight arrival boards punctured by Windows desktops. My favorite is a larger-than-life size Mrs. Potato Head at an amusement park holding a display with a blue DOS screen filled with cold white letters where clearly something more child-friendly should have been. This photo pool documents the puncturing of the interface covering language.

But don't take my word for it. You can easily create these textual ruptures on your computer. Take any MP3 file—we'll use the prelude from Bach's "Cello Suite No. 1"—and change the filename extension from .mp3 to .txt. Open the document in a text editor, you'll see gobs of nonsensical alphanumeric code/language. Now,

take any text—let's say for the sake of consistency, we take Bach's whole Wikipedia entry—and paste it into the middle of that code. Then save it and rename the file with the .mp3 extension. If you double click it and open it your MP3 player, it'll play the file as usual, but when it hits the Wikipedia text, it coughs, glitches, and spits for the duration of time it takes for the player to decode that bit of language before going back to the prelude. With these sorts of manipulations, we find ourselves in new territory: While many types of analog mashups were created in the predigital age—such as the cutting up and gluing together of two separate LP halves or splicing magnetic tapes into collages—there was no language acting upon other language to form such ruptures. With digital media, we're squarely in the world of textual manipulation, which not too long ago was almost the exclusive province of "writing" and "literature."[7]

We can do the same thing with images. Let's take a .jpg of the famous Droeshout engraving from the title page of the 1623 First Folio edition of Shakespeare's plays and change the extension from .jpg to .txt. When we open it in a text editor, we'll see garbled code. Now let's insert his ninety-third sonnet into it, three times at somewhat equal intervals, and save the file and change the extension back to .jpg.

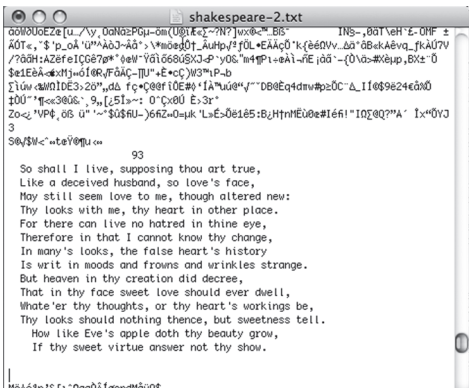

Figure 1.2. Inserting Shakespeare's 93d sonnet three times into the source code of an image.

When we reopen it as an image, the effect that language had upon the image is clear:

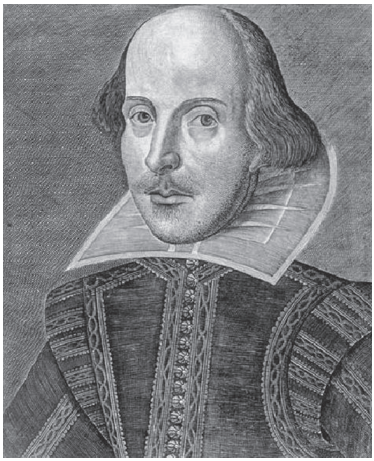

Figure 1.3. The Droeshout Engraving before.
Figure 1.4. The Droeshout Engraving, after inserting text.

What we're experiencing for the first time is the ability of language to alter all media, be it images, video, music, or text, something that represents a break with tradition and charts the path for new uses of language. Words are active and affective in concrete ways. You could say that this isn't writing, and, in the traditional sense, you'd be right. But this is where things get interesting: we aren't hammering away on typewriters; instead—focused all day on powerful machines with infinite possibilities, connected to networks with a number of equally infinite possibilities—the writer's role is being significantly challenged, expanded, and updated.

Quantity Is the New Quality

In the face of unprecedented amount of digital text, writing needs to redefine itself in order to adapt to the new environment of textual