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MULTIMODAL LITERACIES

AND EMERGING GENRES

EDITED BY

TRACEY BOWEN AND CARL WHITHAUS

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CHAPTER 5

Thinking outside the Text Box

3-D Interactive, Multimodal Literacy in a College Writing Class

Jerome Bump

For more than twenty years now print has been steadily replaced by electronic media, words by images, and literature by movies, television, computers, and video games. Hence, as Richard Lanham (1993, 264) put it, "we can neither preserve the educational system unchanged nor throw out the 'literate' ways of thinking. We have, in some way, to move the humanities from the old to the new operating system." Many of us have embraced the "digital humanities" and hailed the move of literature to the Internet in sites such as Jerome McGann's *Rossetti Archive*. But what about the more basic and essential teaching of writing? Gunther Kress (2003, 1) has stated: "One might say the following with some confidence. Language-as-speech will remain the major mode of communication; language-as-writing will be increasingly displaced by image in many domains of public communication, though writing will remain the preferred mode of the political and cultural elite." More recently, Alan Liu (2011) has stressed that this will be an "ever smaller elite." Some of us have been trying to salvage writing for a wider audience by designing

a new verbal/sensory rhetoric that supports hybrid genres of multimodal "writing." McGann's move from the *Rossetti Archive* to the *Ivanhoe Game* suggests a promising operating system for teaching hybrid genres to today's students: the virtual world, often considered a kind of video game.

Video games "are a *push* technology, providing people entrée into other important technologies, such as computers," and "the online affinity groups that emerge around games function as a kind of *push community*, engaging members in identities, values, and practices, markedly similar to the intellectual and social practices that characterize high level, conceptual communities of innovation in fields such as science, technology, and engineering" (Steinkuehler 2005; see Gee 1999). These communities are growing rapidly in India and China but conspicuously absent among most young learners in this country. Many are attracted to video games, however, and "beneath the veneer of fantasy and seeming childishness . . . videogames are sites for socially and materially distributed cognition, complex problem-solving, identity work, individual and collaborative learning across multiple multimedia and multimodal 'attentional spaces' (Lemke n.d.), and rich meaning-making. . . . massively multiplayer online games (MMOGs) are the quintessential example of such communities" (Steinkuehler 2005, 4). Hence the question arises: Would a use of an MMOG virtual world enable us to *push* the boundaries of English, rhetoric, and composition curriculums, providing these students entrée into truly multimodal composition and the communities of innovation related to it?

ANTIVERBAL BIAS IN NEW WRITING ENVIRONMENTS

For more than ten years this question has driven much of my teaching, but I have encountered two fundamental problems I had not anticipated: increasing antiverbal bias in the "new operating systems" and their instability. As Julia Flanders (2011) has pointed out, scholars have become increasingly dependent on a media structure that has become as invisible as an ideology—until it breaks down. We all assume that electricity will always be available for us, like a force of nature. Even when it is, we are still at the mercy of the kinds of problems Howard Besser (2011) enumerates: failures of display devices, of servers, of network connections; data or application corruption; copyright restrictions; link rot; embedded video content that is multiple hops away; and, of course, rapid disappearance of the content itself (about half a million YouTube videos have

already been taken down). All this is exacerbated by the exponential pace of change in the media itself.

I anticipated some of these problems but not the uncertainty of institutional support for research on the new operating systems caused by ever-changing security, disability, privacy, and financial issues. For example, the computer programs English graduate students developed at my institution in the eighties for the teaching of English (the Daedalus system) came under fire by the intellectual property committee; the MOO (multiuser object-oriented) virtual world we then created was shut down for institutional security and disability access concerns; and finally our extensive teaching site on our university's island in the *Second Life* (*SL*) MMOG was torn down almost as soon as it was constructed, apparently for financial reasons.

Ironically, electronic media like these are said to be "persistent." Alex Games (2009), the expert who evaluated our MOO, explained that "'persistence' is a common term used in the computer disciplines to refer to the permanence in computer memory of software entities even when they are not in immediate use." He believed at the time that in our MOO student projects "will remain available even after they have left the university," that it was a place where "a multitude of experiences and perspectives" came together "in a single, shared space over long periods of time," a place where "future generations of students can enter and participate," "a place to both give permanence and historical context to their experiences," ultimately a "virtual public space for humanistic writing on the internet" (ibid.). In fact, not long after this statement was made, the MOO was removed by the systems analyst on the grounds of security and access issues, never to be seen again, with nothing effectively archived.

A similar fate met even my students' electronic portfolios, which facilitated more effective letters of recommendations and better job applications. Even though my institution, the University of Texas at Austin, has a goal of electronic portfolios for all students, the institutions' lawyers and my department, terrifed by FERPA (Family Educational Rights and Privacy Act) guidelines, demanded that all the portfolios that had been published by my students on the Web over the past fifteen years be deleted. Even if this massacre of the innocents had not occurred, with no secure institutional commitments to maintaining student electronic portfolios, such a fate becomes almost inevitable when the instructor of the students is no longer on the faculty.

The lesson seems to be that "software entities" and "computer

memory" are not "persistent" but volatile, ephemeral, even evanescent. After participating in the MOO "space," one of the students saw campus buildings in a new way and "wondered how many more generations of people would have the chance to utilize and respect them." The answer for the MOO's virtual space was "none," but the answer for the campus buildings, including the library, remains "many." In other words, it may be that at this time some of the new operating systems are too unstable even to sustain experiments, much less replace the old humanities. There is still no true digital equivalent of a library: electronic media can and often do vanish almost as soon as they appear, leaving no record, no archive of their existence (other than verbal accounts such as this one). In other words, though we can still go to Harvard to study the contexts of the writing assignments of the 1830s, possibilities for more research on the use of programs cited earlier (Daedalus, the MOO, and our *SL* buildings) have already vanished without a trace into cyberspace. Even when librarians try to archive such materials, the obstacles prove enormous. Besser (2011) has pointed out that in the case of e-mail and social media, we barely can deal with archiving messages, much less their social connections; in fact, *Facebook*'s terms seem to forbid such preservation. Student access can be blocked or restricted by other corporations as well, such as *SL* or *Blackboard* (Rumsey 2011).

People also vanish. New faculty members who plunge wholeheartedly into the digital humanities, leaving the old print ways behind, such as books and articles, may soon disappear themselves. Even if one's work in the field persists long enough to be considered for tenure or promotion, the instability of the digital humanities remains a concern for those who evaluate new faculty members.

ANTIVERBAL BIAS IN DESIGNERS AND USERS OF VIDEO GAMES

The other problem I had not fully anticipated was increasing antiverbal bias in designers and users of video games. There are currents flowing stronger and stronger it seems in these new media toward the rejection of not just print literacy but verbal media and the thinking processes associated with them. The goal at times seem to be the death of words altogether, language replaced entirely by technological imagery. This attitude was evident in the sandbox virtual world, *Second Life*. When my students found themselves alone in *SL*, they found a world of very few words. Indeed, at times it seemed to me that *SL*, like video games, was not only basically nonverbal but even antiverbal. After all, the basic

method of learning in the computer world seems to be trial and error, on your own. If you get effective help, it is usually someone showing you, by example, how to do a task, not putting the process into words. In any case, without someone to show them how to build in *SL*, my students seemed lost in that virtual world.

In the eighties, adventure games such as *Zork* were based entirely on textual communication, but the quest for the "no-typing interface" soon began (Moberly 2008). Images, in the form of icons, soon began to replace many of the text elements and the text windows began to shrink. The latest development is the rise of voice chat to replace the last remaining uses of writing in games and virtual worlds. The text boxes in virtual worlds such as *World of Warcraft* and *SL*—essential for hearing-impaired players, for those seeking a different "voice," and for teachers using virtual worlds to teach writing—have long been regarded as obstacles to greater "immediacy" and more "immersive" experiences. Voice chat proponents describe text boxes as unreal, inauthentic, "primitive," "outdated," "bizarre," and "irrelevant" vestiges of the "dark ages of communication." Conversely, they describe voice chat as a revolutionary "improvement," an "economic and technological imperative" required for "efficient communication and collaboration." One voice chat company, Vivox, equates typing with "an in-game death sentence for players" (Moberly 2008).

Other designers state explicitly that verbal thinking itself must die. One of the primary critiques of the effects of multimedia on us is our declining attention span, our inability to concentrate for any length of time (Birkerts 1994, 27; see Postman 1985; Healy 1990; Kernan 1990; Stoll 1995; Sanders 1995). This tendency is accelerating in the current generation, partly because of their increasing use of the Internet. The result seems to be that at times mindlessness has replaced mindfulness. The normative word in one classic of web design is indeed "mindless" (Krug 2006, 41). The "first law of usability" in *Don't Make Me Think!* is "I should be able to 'get it'—what it is and how to use it—without expending any effort thinking about it" (ibid., 11). The author concedes that sometimes, "particularly if you're doing something original or ground-breaking, or something very complicated you have to settle for *self-explanatory* . . . it takes a *little* thought to 'get it'—but only a little" (ibid., 18). "Reading" has become anathema: "we don't read pages. We scan them [because] we're usually in a hurry"; looking "at most Web pages," the author of this web design book says, "I'm struck by the fact that most of the words I see are just taking up space, because no one is ever going to read them" (ibid., 22, 48).

This "refusal to read" is said to be typical of what has been called "the Dumbest Generation": until now, "no generation trumpeted *a-literacy* (knowing how to read, but choosing not to) as a valid behavior of their peers" (Bauerlein 2008, 40). Admittedly, this generation is not "dumb" in its own world of short communications such as texting and Twitter, which move us toward new definitions of literacy, and some employers may hire them just to skim data sets and reduce them to charts, tables, and other visual formats.[1] However, this new "literacy" increases impatience with the kind of time-consuming, careful, critical, "close" reading and writing genres that are traditionally the capstones of the college experience and crucial to the advance of civilization.

READING AND CONCENTRATION IN THE AGE OF MASSIVELY MULTIPLAYER ONLINE GAMES

The impatience of practitioners of the new "literacy" extends even to reading relatively short, practical texts, such as directions. The rule is "Instructions must die" (Krug 2006, 47). If we supply detailed directions to the current generation of students, what happens? Do most of the students read them? Would we? Many of us clearly have a strong tendency to do rather than to read. "Faced with any sort of technology, very few people take the time to read instructions. Instead, we forge ahead and muddle through" (ibid., 26). For example, how many of us, when given the task of assembling something we have purchased, have the patience to really take the time first to read the directions carefully? How many of us just skim them or skip them and plunge instead into the assembly process as fast we can, carefully reading the directions only when we discover that part left over?

Employers usually expect college graduates to be able to read, analyze, and follow directions, but in multimedia, the rule is "Instructions must die" (Krug 2006, 47). Apparently instructions must die also in many ordinary writing assignments. We assume that "writing will remain the preferred mode of the political and cultural elite" (Kress 2003, 1), but even my advanced honors students disliked reading directions for assignments. If they were not multitasking or rebelling against being told what to do, they were in a hurry, had other priorities, and no patience for any but the simplest directions. Although they were highly verbal, like other college students, they seemed to prefer someone showing them what to do, an instant fix, rather than "reading" detailed directions.

Technical writers are now taught that instead of providing detailed instructions, they should provide good training sessions and video tutorials (with previews and screen shots), showing users how to do it, and set up expert support sites as well as user forums where the clients can help each other and suggest changes to the developers (formerly known as "writers"). These suggested changes in turn lead to additional usability testing, focus groups, attitudinal surveys (do students like it?), formative evaluation (tests in classrooms), think-aloud protocols, and more identification of the "affordances" or capabilities of the technology (Spiro 2011). Simple, easily accessible instructions with many examples are to be provided for them to turn only to as a last resort. Moreover, these instructions have to at least appear to be brief, organized hypertext documents with details hidden, to be supplied only as needed. Even when it comes to directions, apparently the fewer the words the better.

EXPERIMENTS WITH POSSIBLE FUTURES FOR THE TEACHING OF WRITING

What does this say about the future of teaching writing? Obviously, we cannot simply assume that pedagogical gaming is a good way to teach writing to the Internet generation, for games and virtual worlds are not only unstable, their antiverbal messages are all too obvious, undercutting our attempts to salvage at least some aspects of print literacy. Is reserving writing for the elite the only solution? For the moment that seems to be the case. Hopefully some day there will be stable electronic libraries for preserving the history of electronic research in writing and we can reduce and even counter some of the antiverbal messages, including those coming from the surrounding culture. Perhaps we could remove the live chat option from a virtual world, liberate words from the tiny text boxes to which they have been relegated, and make them essential to success in that game. If and when that day comes, we will be able to build on the experiments such as the following, conducted in virtual worlds like MOOs and *SL* before live chat was introduced.

Both of these worlds are known as "sandbox" games. The focus of K–12 game research was in a fairly traditional genre: the narrative. However, Edward Miller (2007, 17), senior researcher at the Alliance for Childhood, criticized K–12 educational games because they fail "to teach higher-order thinking and encourage creativity and imagination in the classroom." These abilities are especially important at the college level, of course. So we turned to "sandbox" MMOGs. Instead of providing a set narrative like most of the other video games, a sandbox game invites members not just to write their own narratives, but to invent new

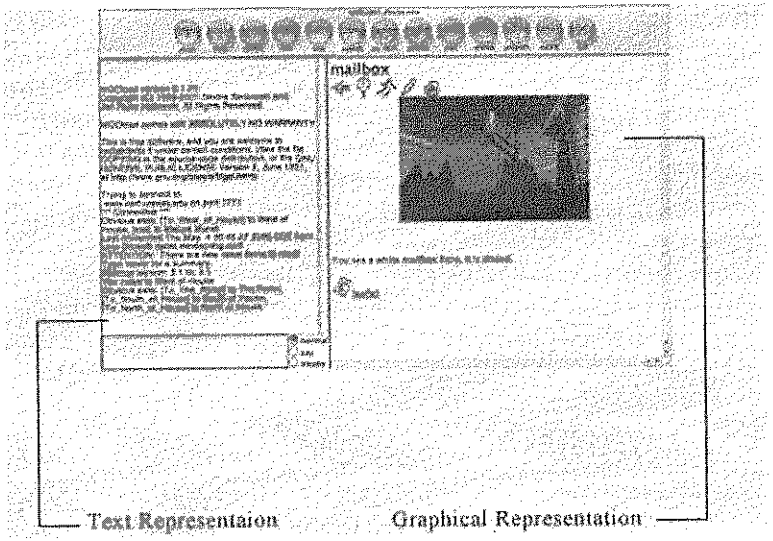

FIGURE 5.1. EnCore MOO interface.

hybrid genres by creating their own objects as well as their own avatars, thereby participating in the construction of a new virtual world. Their "objects" could be scripted actions or characters ("bots") as well as buildings, rooms, landscapes, sculptures, paintings, and so on.

While the first MOOs were composed almost entirely of text, with only ASCII drawings serving as images, and were quickly adapted for English courses, they were soon competing with Internet "hypermedia"—words, graphics, sounds, animation, and video integrated by hyperlinks—which addressed both sides of the brain and invited multiple intelligences (Gardner 1993; Bump 1999). Hence the EnCore MOO, out of the University of Dallas, was developed, which allowed access to the Web and thus to Internet multimedia. The first sandbox virtual world that we tested at our institution was called "*Mappa Mundi*, an Educational MOO for writing and composition." This MOO interface was divided fairly equally between a text box and a multimedia space, representing for us the ideal balance of verbal and visual rhetoric (fig. 5.1).

We tested the capacity of this multimedia MOO to facilitate virtual place-based education because many of my writing courses were based on semiotics: reading the world as text, thus educating the right as well as the left side of the brain. Whenever possible, I lead students out of the classroom to places, usually on campus, that invite the questions and answers

of our curriculum. My aim is to counteract the tendency of multimedia and Internet use to cause "an estrangement from geographic place and community" (Birkerts 1994, 27). Another way to do that perhaps is to use the Internet itself to increase the sense of place in students. I began by expanding the meaning of the word Cynthia Haynes and Jan Holmevik applied to MOOs: "archi*textural*" (Haynes and Holmevik 1998, 4). The leader of the research, Alex Games, began by observing our campus excursions that he decided were "experiential activities reminiscent of what Lewis Mumford calls the *regional survey*"; ultimately he observed the students learning "what Paulo Freire would call *reading the world*" (Orr 1992, 10, emphasis in the original; Freire and Macedo 1987, qtd. in Games). As the students learned that each building represented not only an individual architect's vision but centuries of European traditions, they discovered, as Games put it, "what Freire called the *colonizing nature* of discourse and by questioning it" began that liberation that Freire associated with literacy (Freire and Macedo 1987, qtd. in Games, emphasis in the original).

We attempted to transfer that experience to a virtual world and in some ways succeeded: our MOO embodied "a *sense of place* uncommon in most other electronic media" (Meyrowitz 1985, qtd. in Games, emphasis in the original). At first the goal was to give ordinary students a sense, however primitive, of what it was like to experience study abroad. Because our English department had a summer program at Oxford, students were asked to re-create Oxford and its people. Eventually, the focus shifted to adding a similar version of our own campus. In both cases, in the MOO the students soon became designers of their own worlds, building interconnected "rooms" in which they placed "bots": programs that could carry on very simple "conversations" with the MOO reader. As "the students came to see architecture as a form of writing," they practiced a radical version of "archi*text*ural" writing to explore "Freire's *ways to write and rewrite the world* in dialogue with each other" (Orr 1992, 10, emphasis in the original; Freire and Macedo 1987, qtd. in Games). They transformed "*knowledge through new constructions and representations of reality*" (Chandler-Olcott and Mahar 2003; New London Group 1996, qtd. in Games). The result was a wide variety of "*hybrid texts*" (New London Group 1996, qtd. in Games, emphasis in the original): new forms created by integrating different ways of reading and writing the world. However, because of a fear that the open-source MOO software could be penetrated by hackers, and a fear that the MOO could not be very well adapted to vision-impaired users, the system analyst was ordered to destroy these hybrid texts and the MOO that produced them.

We had to move our project to another environment. The sandbox MMOG that had received the most publicity at this point was the "3-D" virtual world *SL*. One obvious advantage was that by adding the three dimensions of virtual worlds to multimodal pedagogy we could enhance not only engagement by both sides of the brain, but also active learning, the kind of learning that enables college students to retain what they learned longer than the average of two weeks after the course is over. As one of our team members put it:

> Three-dimensional virtual worlds such as *Second Life*, *Active Worlds*, and *There* [provide] experiential learning opportunities unavailable in traditional learning environments (Gee 2003; Kirriemuir and McFarlane 2003; Dede et al. 2005; Prensky 2006). Additionally, some have suggested that there exist positive effects specific to virtual worlds, such as creating a sense of social presence in interactions. Hence 'virtual worlds . . . are expected to have a large impact on teaching and learning within higher education in two to three years (EDUCAUSE 2007b). [Yet] to date, relatively few . . . pioneering studies have initiated inquiry into how to use virtual worlds in instructional settings. (Trapaghan 2007)

This is especially true of English studies. While it is said that "a plethora of literacies congregate around the ever-expanding subject English as the prime site for innovation and development" (Matthewman, Blight, and Davies 2004, 153), rarely attempted was teaching English *in* virtual worlds, requiring writing not just in a small text box but in hybrid genres created *in* and *for* that 3-D world. Although Harvard Law already offered a course entirely in *SL*, English, rhetoric, and composition were conspicuous by their absence in Megan Conklin's (2007) "101 Uses for *Second Life* in the College Classroom." A few teachers had their students write about cyberculture in traditional academic genres after they explored *SL*, but I know of none who asked students to write *in* the virtual world itself. Our specific hypothesis was that by requiring the use of words in hybrid genres *in* the virtual world itself, we could better test the appeal of massive, multimedia, multiplayer, interactive, 3-D social virtual worlds to facilitate the teaching of multimodal composition, especially hybrid genres, putting students on the cutting edge of the visual-verbal, print-online divide.

From 2006 to 2008 we tested our hypotheses in two kinds of first-year writing courses at a large American state university. We began in 2006–7 with a two-semester, required, honors first-year English course.[2] In 2007–8 we compared a new section of this honors course with a first-year

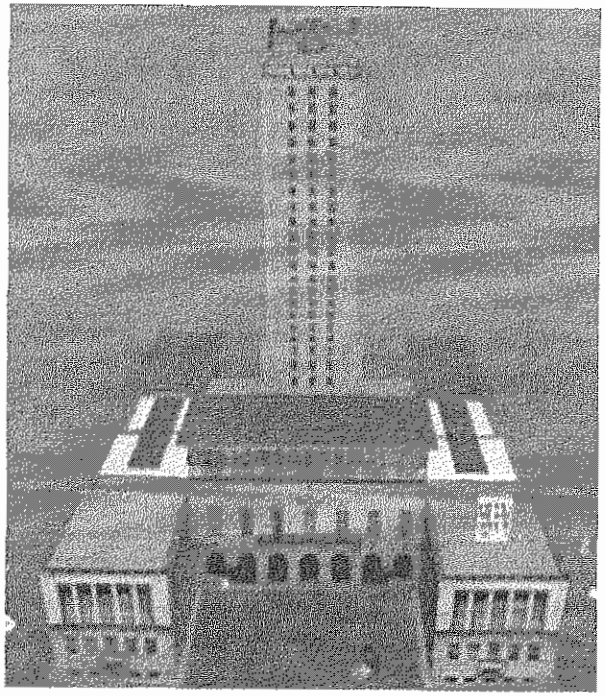

Figure 5.2. The main building on our island in *Second Life*.

seminar that met the university's basic requirements for substantial writing. The honors students in the fall of 2006 were more verbal than the first-year seminar students, but in a survey that featured the question, "Do you feel more skilled about technology skills than other students your age," 93 percent answered "yes"; 86 percent felt confident playing virtual world games such as *SL*; 76 percent liked the use of games in class; and 70 percent liked playing video games.[3]

The first step was to create a *place* for us in *SL*, a virtual campus of our university, thereby helping students "create a sense of place" for their university experience, a recommendation of the Boyer Commission on Educating Undergraduates in the Research University (1998). Therefore, during the summer Alex Games built the main building of our university in painstaking detail on our new island in *SL* (fig. 5.2):

Games also created a version of the campus creek, with trees, and added a Greek amphitheater for debates. (This area, with the students' buildings, is the section that was demolished soon after we built it.) In

the fall the students were given their first assignment: to "write" their "road maps" *in* this world. The "road map" is a visual-verbal-musical presentation of the most important places in the student's life. In first-year courses it is also a relatively painless transition from one genre of high school hypermedia "writing" to college "writing." Even the weakest students are able to make impressive PowerPoint presentations and many students often spend inordinate amounts of time on it, producing very creative and effective autobiographical works. Most students are also able to transform their road maps into movies or websites. All the students then make brief in-class presentations of their road maps and thus get to know each other and create a sense of community. (This road map assignment also triggered the FERPA complaint that led to the demolition of all student portfolios.)

The challenge in this particular class was to put the road map *in SL* somehow. One of the most obvious ways was to convert one's PowerPoint presentation into a website, then somehow link that website to a location in the virtual world. It is not difficult to make a limited web version of a PowerPoint presentation, but putting the link in *SL* was the challenge. The students discovered that the easiest way to put multimodal text into *SL* was to embed a "webloader" script in an object. When a user discovered and then selected such a visual sign in the virtual world, an Internet browser screen opened with the usual 2-D mix of multimedia and text enlarging the message of the sign. For most students this *SL* object was essentially a billboard that presented the first picture in a series. *SL* provided many opportunities to go beyond the multimedia and interactive potential of the Encore MOO. For example, one student, Brad Barry, actually made a series of boardwalks in *SL* from one webloader picture to the next, at one point over the creek. In this hybrid genre one's avatar had to virtually walk through his life (fig. 5.3).[4]

Another student, Mauro Caffarelli, added a third dimension to his hybrid "writing" genre when he used an *SL* note-writing script to embed texts about his life *in* four 3-D objects. First there was a billboard on the creek with the text (fig. 5.4): "As you walk down the river towards the horizon, you shall find four distinct objects that symbolize four great aspects of my life: religion, academics, athleticism, and music. Within each of the objects are two or three notes with concise narratives explaining how I have evolved in the four subjects over the course of my life. Some of them start from when I was of a young age, others begin at a time only three years ago. In order to access the notes, right-click on the object."

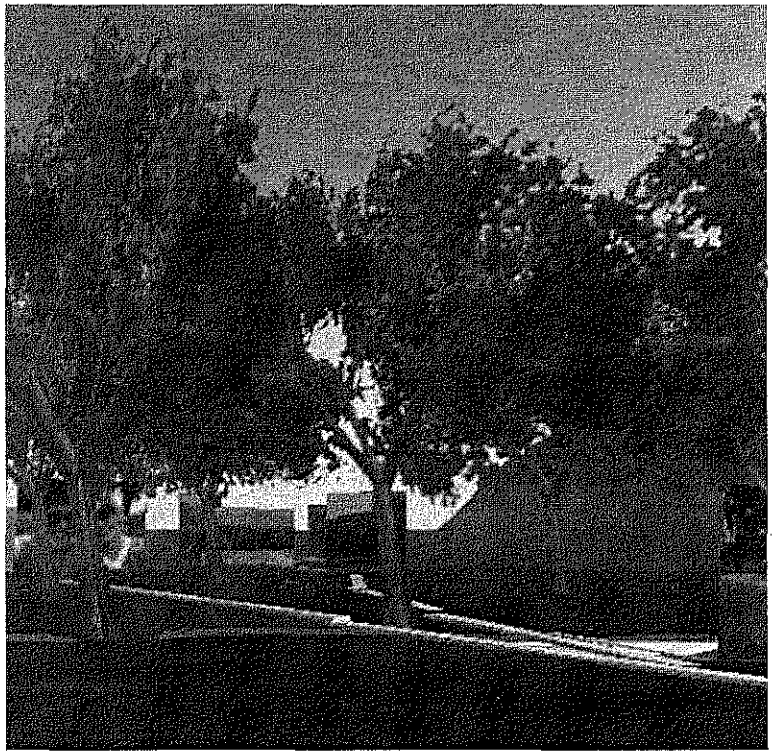

FIGURE 5.3. Brad Barry's boardwalks in *Second Life*.

Mauro sculpted four very difficult objects, a very complex, time-consuming process in *SL* that required not only creativity and imagination, but also higher-order thinking, including knowledge of geometry. He actually embedded text in the objects themselves, creating a true 3-D hybrid writing genre. Like Brad, Mauro also incorporated the interactive motions of a "reader" who had to learn to walk or fly along the creek (or walk in/under its water) to find the objects as well as "select" them to read the text. By forcing the reader to "walk the talk" to briefly experience someone else's life, Mauro, like Brad, helped us cross the divide between self and other. They helped us move toward another pedagogical goal of my courses: stretching the sympathetic imagination, "the ability of a person to penetrate the barrier which space puts between him and his object, and, by actually entering into the object, so to speak, to secure

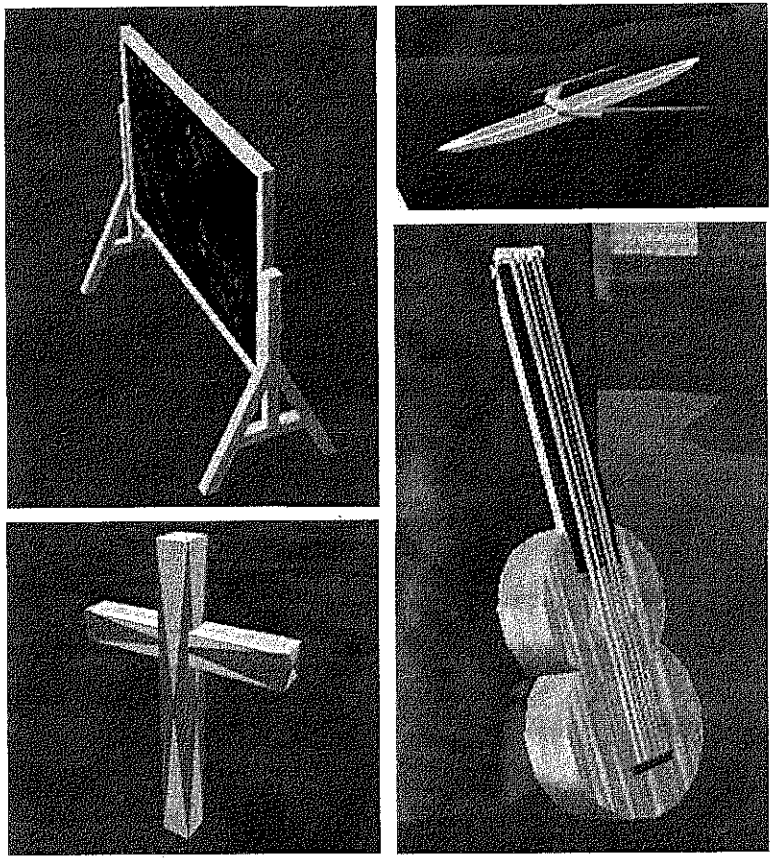

FIGURE 5.4. Mauro's objects.

a momentary but complete identification with it" (Bate 1945, 144). By connecting the sympathetic imagination to another of the course goals—multicultural understanding—this exercise helped us meet some of the diversity goals of our university.

These road maps prepared the students for their first major formal "writing" project. They were to design their own campus master plan and then communicate it in a truly "architextual" hybrid genre: simultaneously composing essays and buildings in *SL*. Their rhetorical task was to integrate their verbal arguments for their own campus master plan into the virtual buildings that exemplified their master plan's style of architecture, to somehow fix their arguments *onto* or *into* the buildings

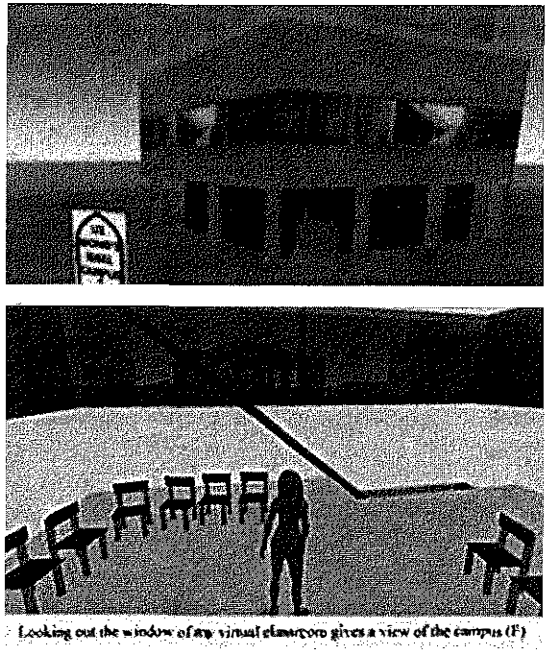

FIGURE 5.5. The breakthrough.

themselves. In other words, they were to construct in *SL* models of the kinds of buildings they wanted to see on campus and embed words in these structures to persuade others to adopt these edifices as models for their campus architecture master plan.

We knew that for our liberal arts students (as opposed to gamers and architectural engineers), advance planning is obviously crucial to meet such a challenge. Our preparation seemed to be fairly thorough, but a month before the course was to begin, our *SL* adviser, Games, transferred to a different university. At first, in the absence of our building expert, constructing true 3-D buildings that one could walk into and "inhabit" in *SL* seemed impossible. However, one student, Elizabeth Wong, stayed up all night and was able to construct such a building (fig. 5.5).

The other students gained confidence and went on to produce some extraordinary buildings of their own (fig. 5.6). This process of creating radically hybrid genres by constructing buildings and embedding texts was very time-consuming, and I doubt these students would have succeeded if they had not been a special class of very advanced, extremely

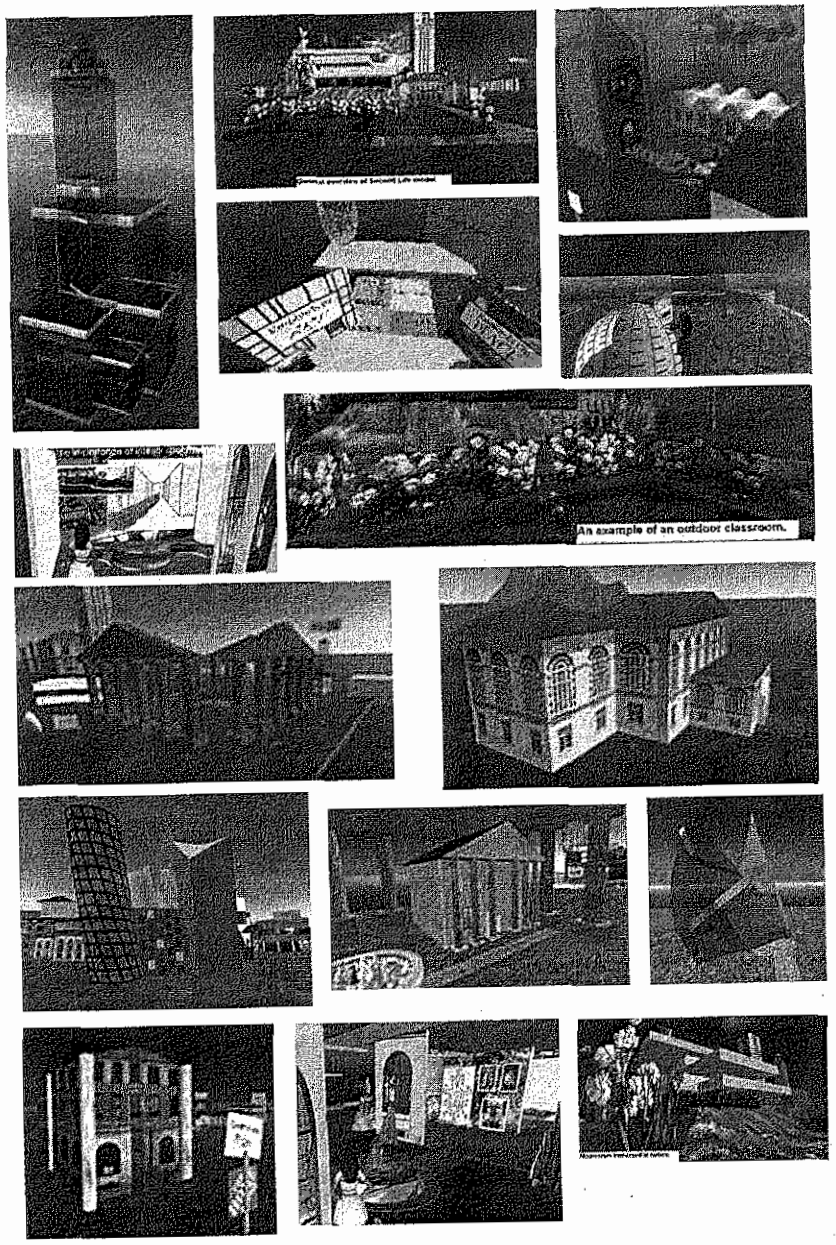

FIGURE 5.6. The result, a virtual campus.

competitive students. As Mauro had shown, in the *SL* virtual campus the most visual but in some ways most difficult way to integrate text and architecture was to embed the text itself in part of a building. Another option was a "Thincbook," a virtual simulation of a book, with covers, pages that turned, and so on. When the students added them to their projects, they thus seemed to resurrect print literacy in the new virtual world. Though the atavistic Thincbooks were difficult to master, some students were able to put their entire multimedia projects in them. In other words, the 2-D mix of words and images they would have put on the Internet was now inserted into the pages of these virtual books, which were then put on or near their buildings. The "reader" was able to "turn" the pages of the books and "read" the project and get an overview of it before exploring further. Often the "writer" also provided more embedded texts in the buildings.

There is no doubt that these archi*text*ural assignments stimulated the creativity of the students and helped them embrace multiple modes: linguistic, visual, spatial, and many added aural on their own. They were forced "to assume responsibility for determining the representational systems that best suit the work they hope to accomplish" (see Jody Shipka's chapter in this collection) and to "stay alert to *how* and *why* we make these combinations of materials" (see Shipka in this collection; Wysocki 2004). Ultimately, they discovered building as a valuable model of composing and how to write from inside the object one has created, as in "L's" comment in the interview below about how she was able "to feel what I think."

This campus building project was clearly successful in three other respects: 100 percent of the students agreed that their "awareness of campus architecture has increased because of SL"; they had created "a sense of place" for their university experience, as recommended by the Boyer commission. The campus they created helped them overcome the divide between the individual and the group; like Charles Soukup (2004, 20), they "discovered that the ability to collectively construct the environment enhanced participants' sense of social community." More than 80 percent felt that a virtual campus of their university in *SL* would be "a good recruiting tool"; "good for freshman orientation"; and "good for retaining alumni interest." A full 77 percent found that their "sense of U.T. as my alma mater increased because of *SL*."

The relation of *SL* to multimodal writing was more complicated, however. The interviews conducted during the first semester by Michael Mayrath—like Games, a graduate student in educational psychology,

revealed that the goals of discovery learning and increased engagement by both sides of the brain bad been achieved by some of the students. Indeed, the result seemed to be a new hybrid rhetoric of persuasion and important changes in point of view:

MM: How is *SL* influencing how you write?

L: It let me talk from the inside about architecture.

MM: Is it making writing easier or more difficult?

L: I think it makes it easier.

MM: Does having a virtual identity in *SL* make a difference in the way that you wrote your assignment?

L: Sort of. When I'm talking about my virtual pictures, I can really describe the view from a person. Like being inside it. Coming from my *SL*, I can say I took my avatar up into the building I can look out and see. It changes the perspective I can write from.

MM: It sounds like it's more of a first-person experience rather than a third-person experience. Is that right?

L: Yeah. . . . It's really cool to take your avatar and be able to walk into the building and then you can take the camera and look up and look out the windows. It's a lot easier to feel what I think.

MM: Do you think what you are doing in *SL* is related to composition and rhetoric in world literature?

L: Definitely, in the description of the class he said we will be looking at world literature as the world around us rather than actual books.[5] So learning about iconography has made me aware of stuff; then building in *SL*, where you're actually creating a world with its own symbols and stuff.

MM: How has *SL* affected your interest level in this course?

L: For our class I'm definitely more interactively involved.

As this interview reveals, at least some of the students were aware of our goal of a new 3-D visual-verbal rhetoric.

There is also no doubt that *SL* activated the students' imaginations. When the evaluators came at the end of the first semester of the experiment to do focus groups, the students responded on note cards that were then assembled and discussed. The students emphasized how much their creativity was stimulated (fig. 5.7). But they also vented their frustration (fig. 5.8).

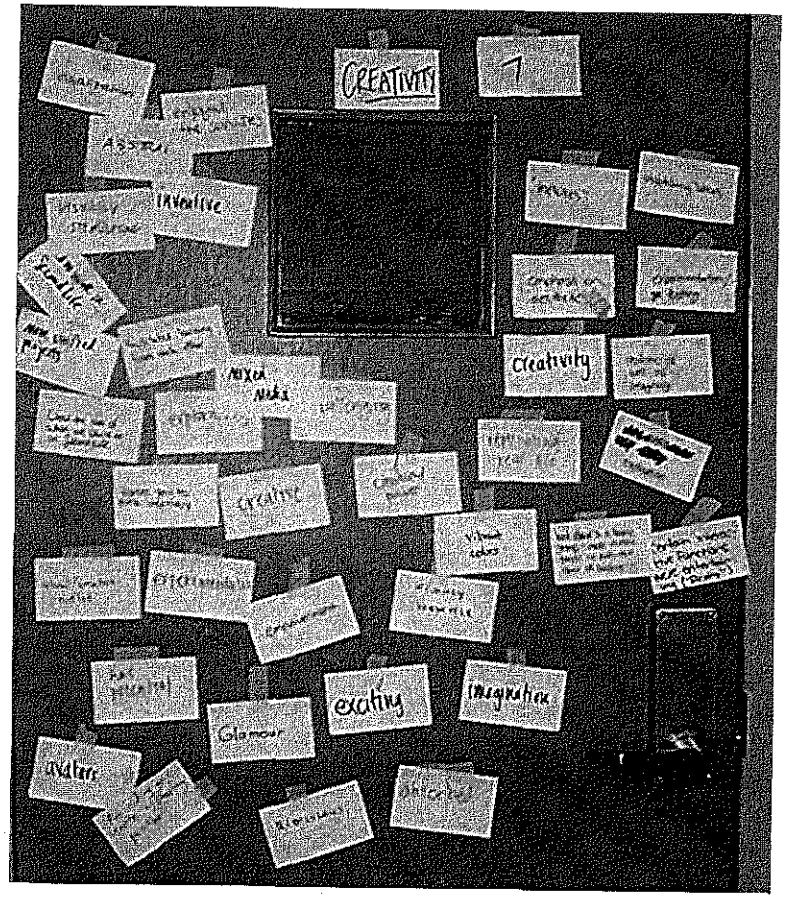

FIGURE 5.7. The creativity.

There were various causes of this aggravation, many related to the steep learning curve and maintenance and security problems in *SL*. *SL* was a rapidly growing site with hundreds of thousands of users, and permissions and other matters were difficult to resolve at a distance. For example, as Mauro had shown, in the *SL* virtual campus the most visual but in some ways most difficult way to integrate text and architecture was to embed the text itself in part of a building. Some students were able to do this, but the results were usually not visible to others because of the complex *SL* layers of permissions. In addition, *SL* was often down for maintenance and even when it wasn't, almost every time the students logged

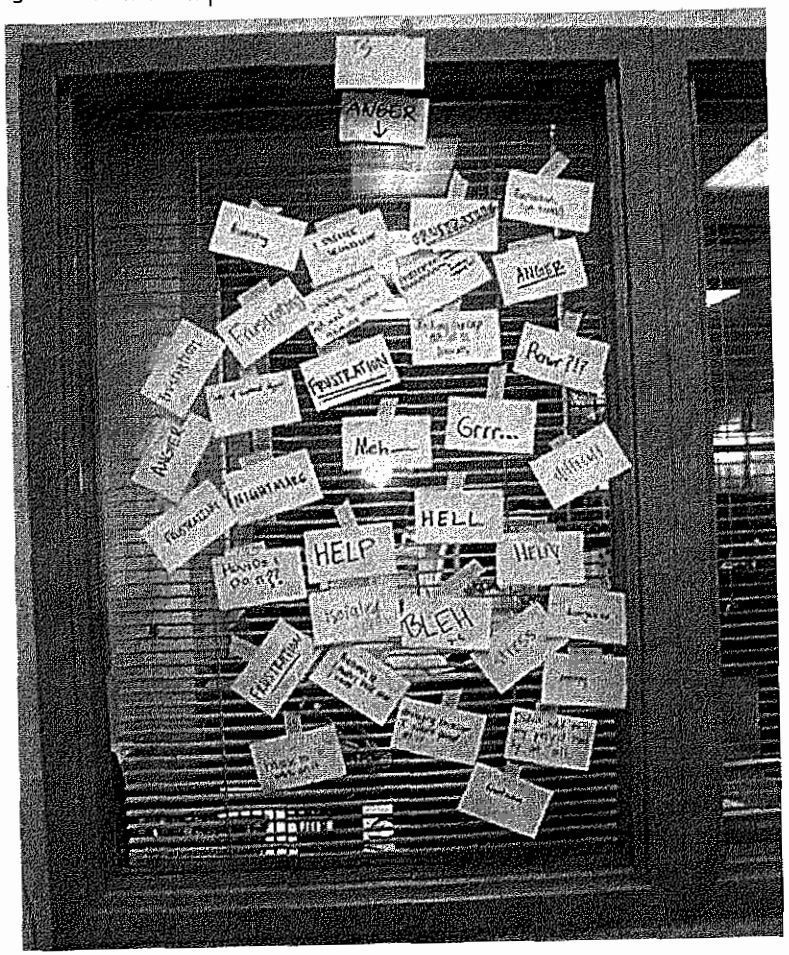

FIGURE 5.8. The frustration.

onto the program, they had to download and install a new desktop client. One time it was shut down completely for days to deal with a security breach and a change of passwords.

Hence, at the end of the first semester, 53 percent revealed that they did not "really" enjoy the experience of building in *SL* and 65 percent were "glad that we are using *SL* less next semester." This experience is congruent with the research of Sasha Matthewman (Matthewman, Blight, and Davies 2004, 158), who "collected and analysed data which showed

frequent instances of English and technology clashing uncomfortably. . . . The main themes were: technological hitches, lack of technical support, . . . tension between the need for coverage of curriculum content against the time taken up by technology, as well as the time taken by pupils in their exploratory and often time-consuming uses of technology." When the *SL* experiment failed most obviously, as in the building experiment, the basic problem was apparently a gulf between two cultures. The student responses to the *SL* building/writing assignments were ambivalent. Our primary goal of integrating visual and verbal rhetoric was achieved in one respect: in the first semester 71 percent felt that their "understanding of how to integrate visuals and writing improved because of *SL*." Yet only 56 percent agreed that "it is a good idea to use *SL* in a literature and writing course." Most remarkably, only 24 percent agreed that their "writing skills have improved because of *SL*." (During the second semester the numbers were even lower, but there was no *SL* writing assignment that semester, except for an extra-credit informal analysis of our avatar chat transcript.)

A second-semester comment summarized the basic problem: "This program taught us about implementing visual rhetoric, but did not improve our writing." All of the respondents to this survey were first-year honors students who, like English majors, had already mastered print literacy and thus did not easily see the need to add on multimodal composing. Although these very verbal students were no doubt aware on some level that the visual was replacing the verbal in public communication, they were also probably aware that writing was still the key to success in the elite class to which they aspired.

What about the more typical students in the first-year seminar? I had assumed that because of their use of Facebook and multimedia websites in general, most of these students arrived with a sense of multimodal rhetoric, an assumption supported by the unqualified enthusiasm of many of the articles on the subject and by the demands of groups of true believers (see Bauerlein 2008). We assume there is a "growing percentage of students who believe that their ability to communicate using new media will be critical to their futures" (Faigley 2003, 179). Obviously, outside of the classroom the students do prefer visual-verbal rather than merely verbal rhetoric, although they may not be fully aware of this preference. Indeed, it has been said that "more and more students come to college with years of experience writing online and now with publishing on the web . . . we do not have to introduce them to the conversation. They are already in it" (Faigley 2001, 419). However, we need to be more conscious of what

"writing online" and "publishing on the Web" means to most students arriving from high school. In other words, we need to ask, what are they already *in* exactly?

With the exception of a few students like Tia Scoffield Bowen, they are certainly not *in* the world of PowerPoint and other programs they are asked to use in high school.[6] Rather, as Shari Dinkins (2008) has observed: "Outside of class, my young students' lives seemed to be a whirl of online relationships, virtual 'lives', and constant reliance on the same two or three friends through instant messaging, text messaging, e-mail, and phone calls; indeed, 'keyboard bravery,' combined with a lack of modesty produced shocking revelations on social communication sites like MySpace and Facebook." Some students are *in* not only sites like these, but also in "Quake tournaments" (see Cheryl Ball's chapter in this collection) and other 3-D virtual-world multimedia video games.[7] In the future, apparently they will be *in* 3-D hybrids that combine the best of Facebook and *SL*.

However, even though Lester Faigley's *Picturing Texts* (2004) and *Little Penguin Handbook* (2006) were ordered for the class, and the first reading assignment focused on how the new multimedia literacy connects the right and left sides of the brain (Bump 1999), many students did not even identify the integration of text and image in their road maps as "writing." Even after their formal writing *in SL* for the building assignments, some students still did not accept the premise that "writing," meaning writing like that assigned in high school, includes visual as well as verbal rhetoric. In other words, appearances to the contrary, print versus digital literacy, like the left versus the right side of the brain, remains one of the more debilitating antitheses in the university classroom.

In short, students' perceptions and understandings of their own visual and verbal literacies do not always match the teacher's. This is true even of PowerPoint. Matthewman (Matthewman, Blight, and Davies 2004, 157) summarizes experiments in England: when teachers asked their "high school" students to convert a PowerPoint story into a written text, the teachers all agreed "that the translation from multimodal story into written language had proved very problematic," and they agreed with Richard Andrews's (2001, 125–26) conclusion, in his overview of prior research, that the result was "two quite separate sets of creative activity rather than . . . a liberating interaction." The divide is even greater when we move to more adventuresome multimodal composing. Most students do not agree with the statement made by Cheryl Ball, Tyrell Fenn, and Tia Scoffield that "none of us communicate *only* through writing and that

written text itself is multimodal in that it carries visual, spatial, and sonic properties every time we type a new letter-character on the page" (see their chapter in this collection). A few students do know this, to some extent, as the interview between "MM" and "L" (earlier in this chapter) reveals, and no matter what problems arose, those of us conducting these experiments have, as Ball and her coauthors argue, "raised awareness of critical and rhetorical (as well as technological) literacies, [because] difference in teaching modes of communication that students have never 'written in' before requires them to rethink their basic literacies."

RECOMMENDATIONS FOR WRITING AND BUILDING IN A VIRTUAL WORLD

As Tomoko Trapaghan (2007) wrote: "Because the virtual-world environment is not pre-defined, creating effective learning environments in virtual worlds poses substantial demands for instructional design and technical skills with virtual worlds. As yet, there is little empirical literature that addresses how to effectively design instructional activities for use in virtual worlds." So what are the possibilities for more "empirical literature" on multimodal composing in virtual worlds? Where can we take this? Assuming the current instability and antiverbal bias of electronic media can be addressed in the future, more research on hybrid genres that appear when students write *in* the games themselves would be valuable, especially to explore the possibility of a new multimodal rhetoric in which abstractions and examples are more fully integrated.

For this new research on writing and building in a virtual world, my specific recommendations are:

1. choose a virtual world more user-friendly and easier to use than the original *SL*;
2. understand the differences between gamers and the general population;
3. know the differences between teachers' and students' perceptions of visual and verbal literacies;
4. know the limits of discovery learning, especially concerning directions;
5. "provide training, support, and clear directions" for virtual world activities (Trapaghan 2007).

First, we need to choose a stable virtual world that is not based solely on the video game model, does not have a steep learning curve, nor the kind of maintenance, permissions, and security problems that plagued *SL* at that time. In other words, we need to begin with a virtual world designed

for general populations rather than gamers. Such a virtual world must offer the stability, training, support, and clear directions novices need.

The second recommendation is based on interviews: "Interviewees said that students' difficulties in using *SL* were related to their lack of experience as gamers" (ibid.). Much of the research on the pedagogical use of MMOGs at the college level is based on courses that attract gamers rather than the average students. If we are to tap into the power of virtual worlds for, say, first-year English, we need to acknowledge the important differences among these populations. The average student has played board games, of course, but the directions in such games are fairly clear. In video games, however, most of the rules of the system are withheld from the player, who must learn by playing, testing hypotheses against the physics of the virtual world (Johnson 2005, 42–45). Needless to say, this is not the world most students want to *be in* to find the directions for a major project in a required first-year English class the night before it is due.

Third, according to Shipka's contribution to this edited volume, we must help students "adjust to a framework that explores the communicative potentials of materials, genres, technologies, and rhetorical strategies that are, more often than not, 'new' to them—at least insofar as they are being taken up, explored, and analyzed in a classroom context." To do this, we must first be aware of what their Internet experiences mean to our students. Take, for example, the differences between teachers' and students' perceptions and understandings of visual and verbal literacies. We need to acknowledge that, whatever we think we know about their online activities outside the classroom, inside the classroom "students are accustomed to taking courses where writing is treated as separate from other representational systems (i.e., where the visual design of the page, font choice, and spacing are not discussed)" (Shipka, this collection). In other words, perhaps we should begin with the assumption that many students will not already see that verbal rhetoric is, to some extent, also visual rhetoric. We will have to make more time in our schedules to practice both thinking in general and transcending this dichotomy in particular.

To challenge simplistic dualisms, we can begin by tapping into the students' awareness of the Internet outside the classroom, for it has predisposed them to prefer complexity to simplistic antitheses: "For the TV generation, things are black and white. . . . no middle ground. But this is not the N-Gen world. [The Net's] half-tone, complex world of information, pointers, judgment, and interpersonal connection is the antithesis of the good guys/bad guys world of adults" (Tapscott 1999, 297). We need to draw on this Internet experience to make them more aware of the limits of either-or logic *in* the classroom as well as outside it: helping them see that each pole of antitheses, such as print versus online literacy or verbal versus visual rhetoric, is dependent on the other and that most successful communication combines elements of both. By choosing both-and rather than either-or logic inside the classroom, students will then be able to apply it to rhetoric and writing as well.

Fourth, at times we must accept the limits of discovery learning. Some students want to be told what to write and how to think. As Shipka put it, "this is especially true for students who enter the course expecting that it will provide them with the magic formula for writing 'right' for all time and every occasion" (Shipka, this collection). Even students who are masters of discovery learning in traditional academic settings may feel lost in *SL*.

Fifth, what can we do about directions? What happened in the honors class? A few students figured out how to build in *SL* and they helped the others. This process would have been greatly facilitated if, from the start, we had set up user forums where they could help each other and encouraged them to do so. And, of course, the frustration would have been greatly diminished if we had good training sessions and video tutorials, showing them how to do it, and, finally, provided, as a last resort, hypertext documents clearly organized with details hidden and supplied only as needed.

We hope that some day other students will benefit from what we learned from the honors students' experiments in salvaging print literacy in *SL*, and designers and researchers will be able to adapt features of educational games that not only encourage creativity, imagination, and higher-order thinking in the college classroom, but do so in multimodal formats that integrate the verbal and the visual. However, we must first deal with the instability and antiverbal bias of the "new operating systems" we are being asked to adopt.

NOTES

A brief preview of this chapter appeared in the e-zine *Currents in Electronic Literacy*. See "Teaching English in *Second Life*," *Currents in Electronic Literacy* (spring 2007), http://currents.cwrl.utexas.edu/spring07/bump.

1. Alan Liu (2011) adds that we are moving from close to "distant" reading in many senses of the word, including toward more and more "distance" learning as budget-cutters impose business models of assembly-line efficiency. Amy Earhart (2011) cites one Texas A&M regent who prefers the feedlot model. She traces this business efficiency model to Bill Gates, who argued that technology should be able to reduce the cost of college education to two thousand dollars. Amanda French (2011) suggests that the goal of the total-distance-learning budget-cutters is to reduce the university to a collection of powerful portals that also offers a little physical space for those who desire human contact now and then, something like the building housing the national digital library of Korea.

2. "Composition and World Literature," http://www.cwrl.utexas.edu/~bump/E603/. The use of *SL* in this course was cited in the *Horizons Report* (EDUCAUSE and the New Media Consortium 2007a, 19).

3. See http://secondlife.com/. These surveys, along with interviews and other evaluations were administered by a team that had been assigned to the project by the university's Division of Instructional Innovation and Assessment (DIAA). The team included Joe Sanchez (information studies); Michael Mayrath (educational psychology); Dr. Tomoko Trapaghan (educational psychology); Dr. Linda Dickens and Dr. Joel Heikes (DIIA); and Kyung Huh (systems analyst). Originally the team also included Alex Games (educational psychology), the chief architect of the course, before he moved to the University of Wisconsin.

4. One website can be seen at http://www.cwrl.utexas.edu/~bump/E603/web06/maps/Brad/Brad%20Barry%20-%20Road%20Map/.

5. "Actual books" apparently means here "complete novels" as there was a 720-page course anthology in the first semester, as one can see in the schedule, see http://www.cwrl.utexas.edu/%7Ebump/E603/scheduleFall06.html. The complete novels were deferred to the second semester, see http://www.cwrl.utexas.edu/~bump/E603B07/schedule.html.

6. See Cheryl Ball's chapter, written with Tyrell Fenn and Tia Scoffield Bowen, in this collection.

7. As Tyrell puts it: the reference is to the multiplayer online game Enemy Territory Quake Wars, which requires an Xbox.

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PART II

Multimodal Literacies and Pedagogical Choices

independently toward incorporation and has filmed weddings and couples, documentary-style interviews, birth stories, and company projects. Her online portfolio can be found at http://www.tiasbowen.blogspot.com.

Tracey Bowen is a lecturer on mass communications and popular culture and coordinates an internship program for the Institute of Communications, Culture, and Information Technology at the University of Toronto–Mississauga. Her research focuses on visual literacy and the use of visual rhetoric within digital environments, particularly in terms of globalization and counternormative narratives. Her work has been published through *Inter-Disciplinary Press*, the *Journal of Popular Culture*, *Studies in Art Education*, and *Higher Education Research and Development*. She coedited *Cultural Production in Virtual and Imagined Worlds* with Mary Lou Nemanic (2010).

Jerome Bump (http://www.cwrl.utexas.edu/~bump/) is a professor of English at the University of Texas–Austin. His latest publication is "Racism and Appearance in *The Bluest Eye*: A Template for an Ethical Emotive Criticism," *College Literature* 37, no. 2 (Spring 2010): 147–70. He was the first director of the Digital Writing and Research Lab (http://www.dwrl.utexas.edu/) and the author of essays in *Computers and Education*, *Computers and the Humanities*, and *Currents in Electronic Literacy*. He has written papers on computers and English presented at NCTE, CCCC, CCTE, Computers and Writing conferences, and at the Universities of Paris, Pittsburgh, and Indiana.

Kerrie L. Carsey is an assistant professor of composition and rhetoric at York College of Pennsylvania. Her research interests include rhetorical theory, religious rhetorics, composition pedagogy, and the history of rhetoric. She received her PhD from Miami University in 2011.

Colin Charlton is an associate professor of rhetoric and composition at the University of Texas–Pan American. He coordinates the Transitional Reading/Writing Program, runs an immersive writing STUDIO for developmental students, and publishes the multimodal online magazine *inQuiry* (http://infiniteinq.blogspot.com). In all these projects he looks for ways to write, read, and learn with colleagues and students in innovative forms that compel engagement and dispel myths.

Jonikka Charlton is an associate professor of rhetoric and composition and an associate vice provost for Student Success Initiatives at the University of Texas–Pan American. In both of these positions she pursues opportunities to support programs that help students engage in meaningful intellectual work. One of her biggest hopes is that students will come to see themselves as belonging to a dynamic intellectual community, one whose borders extend well beyond the university.

Nathaniel I. Córdova was a professor of rhetoric and media studies at Willamette University in Oregon. He was killed in a motorcycle accident on July 16, 2011. His website (http://www.nachocordova.org/) reads: "The temple bell stops but the sound keeps coming out of the flowers." An e-memorial for Nacho is maintained at http://nacho-cordova.blogspot.com/2011/07/it-is-with-deep-regret-that-we-are.html?show.

Abby M. Dubisar, assistant professor of English and affiliate faculty member in women's and gender studies at Iowa State University, works in the areas of multimodal writing, activist and feminist rhetorics, disability studies, and writing in the disciplines.

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Tyrell Brent Fenn is pursuing a master's of science degree in instructional technology and learning science at Utah State University. He is interested in how technology can improve and, in some cases, provide self-directed, collaborative, and social learning environments. He works as the technology services manager at New Dawn Technologies.

Traci Fordham is an associate professor of rhetoric and communication studies at St. Lawrence University. She has been creating and conducting faculty development programs around intercultural, interpersonal, and small group communication for two decades. Her areas of research include dialogue and civic engagement, multimodal literacies, and cross-cultural adaptation.