

# Visual Rhetoric: Literacy by Design

**Lester Faigley**

*Professor of English*

*Director of Rhetoric and Composition*

*University of Texas at Austin*

*Keynote speech presented at the  
Center for Interdisciplinary Studies of Writing  
1998 Conference  
“Technology and Literacy in a Wired Academy”*

**Speaker Series**

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ISBN 1-881221-22-9

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## **Preface**

On April 23 and 24, 1998, the Center for Interdisciplinary Studies of Writing held its ninth annual colloquium, which focused on the theme of “Technology and Literacy in a Wired Academy.” The colloquium offered a forum for discussions on the history of visual literacy and the uses of the web in undergraduate classrooms. We invited Lester Faigley, Professor of English and Director of Rhetoric and Composition at the University of Texas at Austin, to deliver the keynote address published here.

Professor Faigley is an expert in literacy, rhetorical theory, and writing instruction technology. His publications include *Evaluating College Writing Programs* and *Assessing Writers’ Knowledge and Processes of Composing*. In his most recent book, *Fragments of Rationality: Postmodernity and the Subject of Composition*, he examines the impact on the teaching of writing brought by changes in American culture over the last thirty years, especially the introduction of computers into the classroom.

Professor Faigley’s keynote address, “Visual Rhetoric: Literacy by Design,” examines how multimedia technology and visual imagery are changing the nature of literacy, now that nearly everyone has powerful technologies on their desktops. Inevitably, the resulting changes in writing and texts will change literacy education and what we take literacy to be.

The colloquium and Professor Faigley’s speech continue the Center’s commitment to improving undergraduate writing at the University of Minnesota. Along with colloquia, conferences, publications, and other outreach activities, the Center annually funds research projects by University of Minnesota faculty who study any of the following topics:

- curricular reform through writing-intensive instruction
- characteristics of writing across the curriculum
- connections between writing and learning in all fields
- characteristics of writing beyond the academy
- effects of ethnicity, class, and gender on writing
- the status of writing ability during the college years

We are pleased to present Professor Faigley's keynote address as part of the ongoing discussion about Writing Across the Curriculum. One of the goals of all Center publications is to encourage conversations about writing; we invite you to contact the Center about this publication or other publications and activities.

Lillian Bridwell-Bowles, Series Editor  
Bob Peterson, Editor  
June 1998

## Visual Rhetoric: Literacy by Design

Phaedrus Media is a typical Web site these days, especially in a university town like Austin, Texas (Figure 1). It advertises a new technology-related small business, probably run out of someone's home. It offers examples of work in a portfolio, and if you click on "portfolio," you jump to another index page that offers a choice among "graphics," "bleed" (for bleeding edge technology), and "java" prototypes and demos. If you then click on "graphics," you get a catalog of thumbnail graphics, which can be enlarged (Figure 2). After you enlarge a few of the abstract graphics, some of which are animated, you might wonder what is the point, so you click back to the previous screen and look at the words beside the thumbnails:

### **genesis jellyfish**

*Created in: Painter 4*

*Notes: genesis jellyfish. I don't know what it means but the image is kind of cool. That's why I animated it. It was animated in Painter, too. (Painter has a very nice animation and rotoscoping tools.)*

Soon you begin to suspect that the Web site is the creation of an adolescent, and you're right. Phaedrus Media is the Web site of Ben Syverson, who was 15 when he built the site.



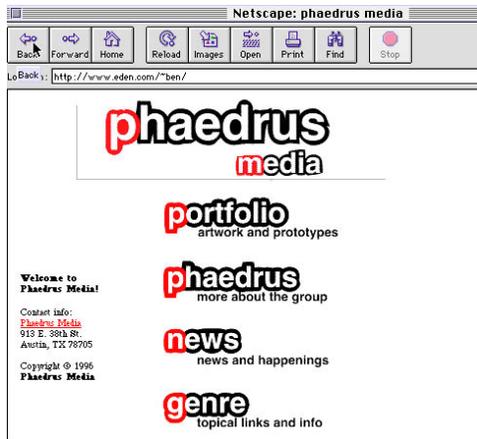


Figure 1. Phaedrus Media.

No longer available.



Figure 2. Phaedrus Media Portfolio.

No longer available.

Among his peers Ben is exceptional, but he is hardly unique. Thousands of teenagers now have personal Web pages, many of which display the multimedia capabilities of the World Wide Web. The Web sites of two young women who go to Community High in Ann Arbor, Michigan, are more typical of teenager's personal pages. Seventeen-year-old Jessica Draper has a Web site called "llanarth's lair," with the title illuminated by flashing multicolors, making the letters appear in motion across the page (Figure 3). If you scroll down her page, you find text that announces her dog rules and a long clickable list of what she finds cool, including email. Another student, Kate Levy, has a home page that announces, "This is Kate Levy's site. I am Kate. My homepage uses frames. If you can't handle this, I'm sorry." At the bottom is a blinking message that requires concentration and several seconds to read. It says: "Blink tags are annoying. interesting, huh? I think so. But not really... oh well.. maybe someday I'll understand you. O if things never change, I won't. Of course things do.. change is good... someday everything will change. INCLUDING YOU!!!"

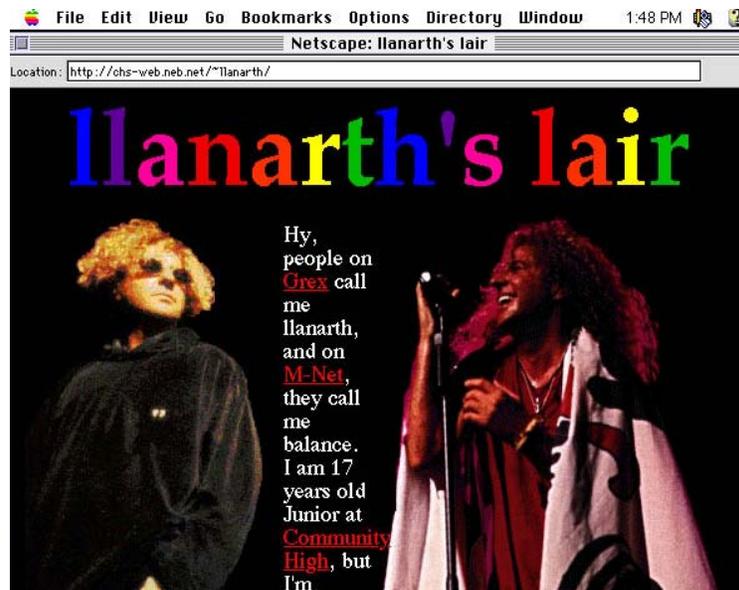


Figure 3. Jessica Draper's "Llanarth's Lair." No longer available.

I find these sites remarkable for a number of reasons, not the least of which is the considerable design talent of these teenagers. Compare, for example, Time Warner's Pathfinder site, which is the work of professionals and cost many thousands of dollars to produce (Figure 4). But far more interesting is how these sites are intersections of three long historical trajectories: the development of writing systems going back at least 5,500 years, the development of images going back at least to cave paintings 30,000 years ago, and the development of capitalism that is variously dated but at least a few centuries old. But first, why I should even want to discuss the materiality of literacy is not obvious because a literate act assumes an object, a text that can be read. Yet it was precisely that object that one of the ideals of Enlightenment rationality--the ideal of the transparent text--sought to erase. It took decades of critical and empirical studies to convince scholars that texts are not transparent and that reading and writing are situated acts, but the ideal of the transparent text still persists in perceptions of literacy held by much of the public.



Figure 4. Time Warner's Pathfinder. <http://pathfinder.com>

The ideal of the transparent text entails several other presuppositions, foremost that "true" literacy is limited to the abstract representation of sounds, thus placing syllabic and logographic writing systems at a lower level and banishing pictograms and images to the status of illiterate. Scholars of the history of literacy have shown us just how much cultural baggage conceptions of literacy have carried, and the loathing of mass-produced images is part of that cultural baggage. Barbara Maria Stafford has examined how current attitudes toward images were formed in eighteenth-century England, when educated people began associating images with ignorance, illiteracy, and deceit (110). These attitudes followed from the Protestant mission of defeating the mindless auditory, visual, and olfactory credulity of Catholicism with the power of reason expressed in print. In the nineteenth century these prejudices began running squarely against an increasingly shared world culture of images made possible by new technologies. The crisis for the prevailing concept of literacy caused by these new technologies is expressed in a poem by William

Wordsworth, signed in 1846, commenting on the mass publication of illustrated books and newspapers following the appearance of The Illustrated London News in 1842:

DISCOURSE was deemed Man's noblest attribute,  
And written words the glory of his hand;  
Then followed Printing with enlarged command  
For thought--dominion vast and absolute  
For spreading truth, and making love expand.  
Now prose and verse sunk into disrepute  
Must lacquey a dumb Art that best can suit  
The taste of this once-intellectual Land.  
A backward movement surely have we here,  
From manhood--back to childhood; for the age--  
Back towards caverned life's first rude career.  
Avaunt this vile abuse of pictured page!  
Must eyes be all in all, the tongue and ear  
Nothing? Heaven keep us from a lower stage!

Wordsworth's lament has been uttered again and again in the century and a half since his poem, "Illustrated Books and Newspapers," was written. Each new popular image technology has brought accompanying cries that "dumb Art" has captured the reading public of "this once-intellectual Land" and caused "a backward movement surely."

Lately the World Wide Web, the most powerful publishing technology ever created to distribute both words and images, has provoked an eruption of jeremiads about how the Web is destroying literacy as we conceive of it in the academy--that critical

thinking and reflection, a sense of order, dialectical interaction, logical relations in texts, depth of analysis, trails of sources, and the reform mission of public discourse are all going to be lost. Even those who take a more balanced view fear that the multimedia capability of the Web will undermine the power of prose. Jay David Bolter writes, "The new media . . . threaten to drain contemporary prose of its rhetorical possibilities. Popular prose responds with a desire to emulate computer graphics. Academic and other specialized forms respond by a retreat into jargon or willful anachronism" (270). The coming of the Web, however, does not have to be viewed as a loss to literacy. Images and words have long coexisted on the printed page and in manuscripts, but relatively few people possessed the resources to exploit the rhetorical potential of images combined with words. My argument is that literacy has always been a material, multimedia construct but we only now are becoming aware of this multidimensionality and materiality because computer technologies have made it possible for many people to produce and publish multimedia presentations.

### **The Paradox of the Alphabetic Literacy Narrative**

Why we have not acknowledged this multidimensionality and materiality has much to do with the influence of the grand narrative alphabetic literacy. Based on a dichotomy of oral versus visual, the grand narrative is often identified with the work of Harold Innis, Jack Goody, Walter Ong, and Eric Havelock.<sup>1</sup> This reduction of their wide ranging scholarship, however, is misleading. The grand narrative of alphabetic literacy is much more an accumulation of ideas about language and culture that began to take shape in the eighteenth century. In recent years it has been popularized in books such as Robert

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Logan's The Alphabet Effect, complete with explanations of why the invention of the alphabet led to the superiority of Northern Europe. Logan writes that "many of the seminal ideas in Western science, mathematics, jurisprudence, politics, economics, social organization and religion are intrinsically linked with the phonetic alphabet. . . . Of all mankind's inventions, with the possible exception of language itself, nothing has proved more useful or led to more innovations than the alphabet" (17-18). According to the grand narrative no less than the rise of science, the development of democracy, the celebration of the individual, the establishment of Protestantism, the codification of law, and the spread of capitalism were the result of a shift from an oral bias to a written bias for conveying information and ideas. This shift is claimed to have facilitated abstract thinking and deductive logic.

The narrative of alphabetic literacy assumes an evolution from pictographs to modern writing systems. This theory was first advanced by William Warburton, the future bishop of Gloucester, in his 1738 book Divine Legation of Moses. From his study of Egyptian, Chinese, and Aztec manuscripts, Warburton hypothesized that all scripts evolved from narrative drawings. His theory was widely diffused by Diderot and d'Alembert's Encyclopédie and remained definitive for over two centuries (Schmandt-Besserat 4). Even though twentieth-century archaeologists have amassed a great deal of evidence to the contrary, the pictograph theory is still often repeated in popular accounts of the origins of writing (e.g., Claiborne, Gelb). Logan follows the underlying assumption of the pictographic theory in arguing that "the absence of Western-style abstractions and classification schemes in Chinese culture is related to the differences in writing systems" (47). In a chart of cultural patterns, he makes the following comparisons (49):

<b>EAST</b>	<b>WEST</b>
Ideograms	Alphabet
Right-brain oriented	Left-brain oriented
Nonlinear	Linear
Acoustical	Visual
Analogical	Logical
Inductive	Deductive
Concrete	Abstract
Mystical	Causal
Intuitive	Rational

Logan concludes: "The lack of abstraction in the writing system reflects itself throughout Chinese thought and discourages the development of abstract notions of codified law, monotheism, abstract science, and deductive logic" (58). For those who endorse the narrative of alphabetic literacy, China provides the example of what happens to a culture whose writing system fails to evolve, i.e., to "progress."

The two crux points in the narrative of alphabetic literacy occur with the inventions of the modern alphabet in classical Greece and Gutenberg's printing press in the mid fifteenth century. Singling out the contribution of the Greeks to the alphabet seems at first a curious move because systems of writing as abstract signs long preexisted the Greeks. Greeks living in Phoenicia adapted the 22 Phoenician consonant characters to represent the Greek language. They converted a few of the consonants as vowels and added a few signs--phi, chi, psi, ksi, and omega--which were either borrowed, modified,

or independently created. The earliest known alphabetic Greek inscription dates from about 730 B.C.E. and the earliest surviving commercial documents in Greek come 200 years later. The Greek alphabet was transmitted to Latin via the Etruscans, who lived in central Italy from about the seventh through the first centuries B.C.E. Until nearly the end of the fifth century, the European alphabet was used in Greece and hence was the script that the Etruscans imported and which later became the basis for the Roman alphabet. Had the Etruscans borrowed the later Ionian alphabet instead, modern European and Greek scripts would now have a much closer resemblance.

The mutation known as the Greek alphabet, then, comes relatively late in the history of writing. The earliest written texts appear many centuries earlier in Mesopotamia with the development of the first urban centers around 3,500 to 3,100 B.C.E. We base our knowledge of the earliest writing on a collection of about 1500 texts preserved on clay tablets, produced by the Sumerians, who in the middle of the fourth millennium became dominant in southern Mesopotamia. Although the content of many of these texts remains enigmatic, most apparently are administrative records of economic transactions bearing official seals. Writing was one of the inventions that made civilization possible. It allowed kings to send instructions to far-off administrators and to collect taxes. It allowed merchants to order goods and bill customers. It allowed farmers to buy, sell, and lease land. But even though we know a great deal about the functions of writing in early civilization, the origins of writing have remained mysterious. The repertory of signs on the earliest tablets is surprisingly large--over 2,000 words at minimum. Furthermore, the great majority of signs are abstract. My colleague at the University of Texas, Denise Schmandt-Besserat, believes that the small clay tokens

commonly found at archaeological sites in the Middle East are an important clue to the origins of writing (Figure 5). These tokens, which come in several shapes and extend over a long time span, from the ninth to the second millennium, B.C.E., were hand modeled out of clay and are widely distributed over space--extending from Khartoum in the Sudan to mainland Greece to sites east of the Caspian Sea. Until a decade ago, however, archaeologists had few guesses about what the tokens were used for.

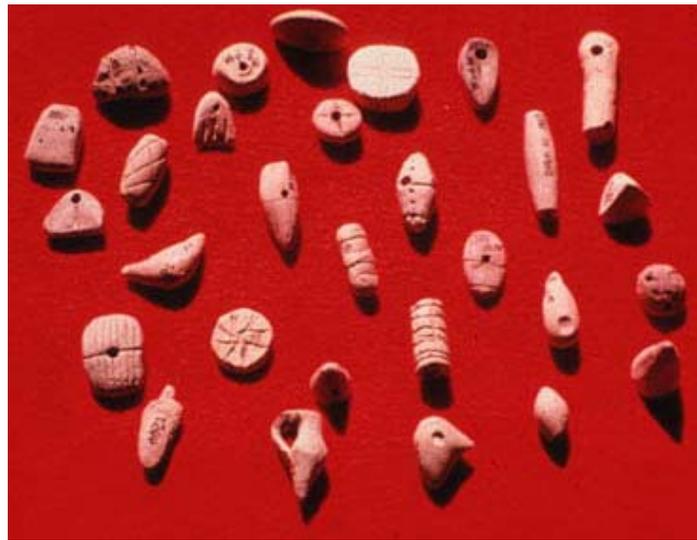


Figure 5. Tokens with Various Geometric Shapes Found in the Middle East, Dating from 8,500-1,500 B.C.E.

Schmandt-Besserat thinks that the tokens were an early recording system. Many of the tokens are contained inside bullae, which have to be broken open to record their contents. One bulla found at Nuzi in the 1920s and dating from about the sixteenth century B.C.E. throws light on what the tokens might have been used for. It contained 49 small tokens, but more importantly, bore a lengthy cuneiform inscription on the outside. The translation is: 21 ewes, 6 female lambs, 8 adult rams, 4 male lambs, 6 female goats, 1 male goat, 3 female kids, and the seal of the shepherd. These numbers add up to 49, leaving little doubt that the tokens were counters, representing the herd. Tokens, then,

were very likely invented in response to another technology--agriculture. Advances in agriculture created surpluses. Suppose one farmer had a bumper crop of grain; his neighbor a herd of pregnant but hungry sheep. The second farmer might have used tokens to promise the first farmer a certain number of lambs next spring in return for a load of grain. To ensure that the number was the one they agreed on, the tokens were sealed in a bulla. In this way tokens functioned like a modern bill of lading.

The crux of Schmandt-Besserat's theory, however, is how three-dimensional tokens led to two-dimensional symbols. Again, consider the example of the farmer with a grain surplus, eager to make futures trades for livestock and other goods. As this proto-agribusinessman wheeled and dealt his way up and down the Tigris and Euphrates, the bullae on his shelves piled up. After a while he didn't know exactly how many sheep and goats he was going to acquire in the spring because the tokens were sealed in the bullae. Schmandt-Besserat thinks that some clever trader began impressing symbols of the tokens on the outside of bullae to indicate what they contained. Eventually the convenience of noting the number of tokens on the surface of the bullae supplanted the system of tokens altogether. Schmandt-Besserat also hypothesizes that many of the tokens represent numerical signs rather than individual objects. Consequently, two-dimensional writing began not by representing reality through pictographs but by representing in two dimensions the previous recording system. If Schmandt-Besserat is correct, her theory helps to explain why the first tablets contain a surprisingly large percentage of symbols, why these symbols are abstract, and why they apparently were standardized at a very early date. Even if she is not correct, the unearthing of large numbers of archaic texts dating from the fourth millennium B.C.E. and their subsequent

deciphering disputes the assumption that writing evolved from pictures. True pictograms are relatively rare in the earliest Sumerian texts, representing "plow," "chariot," and "sledge." By 3,000 B.C.E. the Sumerians had considerably reduced the number of signs and had developed the cuneiform script which mixes phonetic signs and ideograms. Throughout the history of writing in the West, we find such mixed systems continuing to the present; indeed we have only to look at the top row of a keyboard to find words represented by single symbols: @, #, \$, %, &.

The paradox of the narrative of alphabetic literacy lies in its claim of a cognitive divide between oral and visual cultures. In order to make this claim, a great deal has to be ignored about how information and ideas are stored and transmitted. The essential shortcoming in the narrative lies in its desire to provide a simple explanation of cultural differences by theorizing that writing systems shape cultures. The history of writing suggests just the opposite: that cultures freely borrow and adapt systems for information storage when the need arises. Thus in its claim for the primacy of the visual, the narrative of alphabetic literacy not only effaces the material tools used in writing (as Christina Haas has noted), but also visual cognition.

The second great moment in the grand narrative of alphabetic literacy is the invention of the printing press. Robert Logan writes that "with the printing press we finally encounter a technology whose impact on the use of the alphabet is so great that it must be ranked in importance with the alphabet itself. For not only did the printing press greatly multiply access to alphabetic texts, it also, through the regularity it introduced, transformed the way in which the alphabetic text was placed on the page and was perceived by its readers" (177). The issue of perception is essential to the narrative of

alphabetic literacy. Logan and others claim that print magnified the changes brought about by the introduction of the alphabet. Because scribes often used variant spellings and irregular punctuation, readers of hand-copied texts often had to speak the texts in order to interpret them. Print brought regularity to spelling and conventions of punctuation, enabling rapid, silent reading. Logan quotes Harold Innis, who maintains that "the discovery of printing in the middle of the fifteenth century implied the beginning of a return to a type of civilization dominated by the eye rather than the ear" (186). But just as for the argument on the effects of alphabetic literacy on Greek culture, the concept of the visual in print literacy is a highly truncated one. With the regularity of uniform type, Logan argues that the "printed medium became transparent and hence its effects more abstract" (193). The ideal of print literacy is the conduit metaphor, where ideas flow directly from the mind of the author to the mind of the reader. Thus, again the argument for the turn to the visual paradoxically means the effacement of the visual.

Unlike the development of the Phoenician alphabet and its subsequent adaptation by the Greeks, however, we know a great deal about the development and distribution of the printing press. The central figure, of course, is Johannes Gensfleisch, known as Gutenberg from the name of the family estate--Zu Guten Bergen, "the good mountain." For many years scholars have debated Gutenberg's role in the invention of printing. Much of what we know of him comes from the legal records of Strasbourg and Mainz, where lawsuits in 1439 and 1455 make claims for loans and partnerships concerning Gutenberg's invention. Gutenberg was a goldsmith by trade, and his innovations came in the replica casting of moveable metal type, uniform in size, and in the mixing of an oil-based ink that would adhere to type. The result was a book with very high technical and

aesthetic quality, with regular lines, justified margins, and beautiful type design (Figure 6).



Figure 6. Detail of the 42-line Gutenberg Bible, c1455. (University of Texas at Austin)

There is little doubt that Gutenberg made major technical achievements in printing but many questions remain. To what extent was he a synthesizer of traditions of printing that had preceded him by centuries rather than an originator of printing? And how influential was the printing press in the major cultural and economic changes that were taking place during the Renaissance? Major scholarly controversies have centered on these questions, which are too complex to summarize here. In brief, Gutenberg inherited two technologies that originated in China--paper and block printing. The process of making paper was invented in China by 200 A.D., following an even older technology of producing a paper-like material from the bark of mulberry trees. A battle in Central Asia fought in 751 A.D. between Arab-led armies and Chinese armies eventually led to the transmission of paper technology to Europe. Captured Chinese paper workers established a paper workshop in Samarqand and later in Baghdad (Hassan and Hill 191). A paper and book industry then flourished in Baghdad and spread to other parts of the

Islamic world, including Morocco and Spain. When Christian forces captured Toledo in 1085, Europe gained access to the knowledge in paper books and the technology to make them. The paper makers of Baghdad also learned how to harness water power for the labor-intensive process of pounding fibers into pulp. In the thirteenth century, a paper industry grew up in Italy using water power, which spread to France in the fourteenth century and throughout Western Europe in the fifteenth century. Book historian Henri-Jean Martin observes that "The importance of this movement can hardly be exaggerated. Before paper became available, the hides of a veritable herd of young animals were required to make a single in-folio volume" (210).

Along with paper the Chinese developed several technologies for reproduction of images. A history of the Sui dynasty (581-617) written in the seventh century describes Taoists priests who printed charms as cures for illnesses. During the eighth century the Chinese had mastered block printing, which allowed images to be combined with text. During the eleventh century the Chinese used movable type made of baked clay, and Chinese and Koreans may have been printing with movable metal type as early as the twelfth century. To what extent these technologies were known in Europe is still debated, but various kinds of wood block printing were practiced in Europe by the time Gutenberg began experimenting with his press. Engraved wood blocks were employed primarily to print religious images, but blocks were also used to print textiles, playing cards, pamphlets, tables, and secular images (Martin 212). Gutenberg also benefited from new technologies of metalworking. This industry was flourishing in Europe with metals being extracted in large quantities to meet a strong demand. Metallurgists learned new techniques of making alloys and of casting metal copies. Gutenberg himself had a

background in minting coins and manufacturing mirrors. From the larger perspective, therefore, Gutenberg's achievements represent more a stage in an evolution of a series of linked technologies rather than a distinct breakthrough.<sup>2</sup>

The second and much more extensive controversy has been the debate over the historical impacts of printing. The expansion of the printing industry in the fifteenth century is phenomenal. By 1501, at least 10,000,000 copies and possibly double that number of an estimated 27,000 to 35,000 publications had been printed. Like answering machines, VCRs, and email in the late twentieth century, printed books spread quickly through an emergent middle class. Logan claims that the printing press "unleash[ed] a powerful new force that completely transformed Western civilization, leaving in its wake the Renaissance, the rise of science, the Reformation, individualism, democracy, nationalism, the systematic exploitation of technology, and the Industrial Revolution--in short, the modern world" (183). The extravagance of Logan's claim is underscored by the facts that the Renaissance had been in progress in Italy for over a century while the Industrial Revolution lie three centuries ahead.

Nevertheless, there were notable short-term impacts of printing, and one of the most important was the use of print by religious reformers to disseminate the translated Bible and their religious views. Martin Luther believed that all Christians should read from the Gospels daily in their own language and advocated schooling so that children could read the Scriptures before age ten. But even with the success of the Reformation, the great majority of books published during the first century of print were in Latin. Latin remained the language of international scholarship, and its decline was slow. During the

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Counter-Reformation, the Jesuits established schools that were the rivals of the Protestants, and they actively published Latin titles. Even after the energy of the Counter-Reformation was spent, the dominance of Latin still lingered. Some of the best records of early books come from the catalogues of the Frankfurt Fair, where new books were announced to Europe. Not until the 1680s did more German than Latin books appear (Febvre and Martin 232).

Furthermore, there is little evidence that the practices of literacy changed radically with the appearance of printed books. Roger Chartier notes: "In the sixteenth and seventeenth centuries the reading style implicit in a text, literary or not, was still often an oralization of the text, and the 'reader' was an implicit auditor of a read discourse"(9). Thus the great cognitive achievement asserted for print literacy--silent reading--occurred long after printed books became dominant. Similar claims have been made for the impact of print on science that are not borne out by the historical record. Logan writes that "the rapid dissemination of information and knowledge to a mass audience was one of the essential elements in the use of modern science" (194), but what was in fact disseminated in the early decades of printing was hardly scientific by modern standards. The most popular scientific subject was astrology. Febvre and Martin observe that early books did not contribute much to scientific theory though they did draw attention to new technical advances in architecture, agriculture, and machinery. Febvre and Martin conclude that printing brought about no sudden or radical cultural transformation, which is hardly surprising since booksellers were interested in making a profit and thus looked for books that would sell in the largest numbers (260).

Those who argue for a strong impact of print on science, such as Elizabeth Eisenstein, point out that the visually dependent sciences of botany, zoology, and anatomy flourished after accurate print images replaced scribal images intolerably degraded in copying. The first copperplate engravings, which later became important in printing, came in the middle of the fifteenth century about the same time as Gutenberg's press. For the sciences, engraving was as important a technology as moveable type. Francesco Stelluti (1577-1652) was a member of the Accademia dei Lincei in Rome and an early observer of insects through microscopes. He combined the earliest illustration of a subject seen through a microscope with a Latin poem in praise of Pope Urban VIII (Figure 7).



Figure 7. Francesco Stelluti, Printed Sheet Inserted in Manuscript Miscellany of Stelluti's Papers. Rome, 1625. (Library of Congress)

Logan credits alphabetic literacy with creating an environment where images and diagrams could thrive. At no point in his version of the rise of alphabetic literacy is he more confused. Illustrations had a long tradition in manuscripts, and they came to early

books in woodcuts. Printers quickly learned to place woodblocks beside type and print a sheet with one pull of the press bar. Just two decades after Gutenberg's 42-line Bible, printers of the 1470s produced a library of illustrated books including The Golden Legend, The History of the Destruction of Troy, Aesop's fables, and works by Boccaccio and Petrarch (Martin 229). Great artists worked as illustrators. The wood engravings of Albrecht Dürer, including his Apocalypse (1498), Great Passion (1498-1501), and Life of the Virgin (1502-1510), were issued first as prints and later in bound volumes. In the early 1500s emblem books came into vogue. The Iconologie of Cesare Ripa published in 1539 is a dictionary of visual signs, describing the symbols for the virtues, vices, wisdom, justice, and other qualities. Both Protestants and Catholics used printed images for propaganda.

The forces allied with print during the fifteenth, sixteenth, and seventeenth centuries are ambiguous, and distinctions between cause and effect are problematic. Much of what is claimed for print by the proponents of the alphabetic literacy is the heritage of Enlightenment rationality. If the cognitive effects of literacy are as profound as some proponents have claimed (for example, Goody and Watt maintain Aristotle's syllogistic reasoning was made possible by writing), then these effects should be manifest in the nineteenth and twentieth centuries, when the spread of mass literacy and the proliferation of cheap printed texts should have extended the benefits of print literacy.

The assumption of a cognitive gulf created by alphabetic literacy was effectively challenged by Sylvia Scribner and Michael Cole, who studied the Vai in Liberia, a people who had developed literacy apart from schooling. Scribner and Cole found that while literacy produces differences in certain contexts, in the important dimension of logical

thinking, literates and illiterates did not differ in performance. Many of the abilities claimed for literates could be attributed to schooling. Scribner and Cole pointed the way for new concepts of literacy as pluralistic and socially situated. The narrow view of literacy as alphabetic literacy, which had dominated so long into the twentieth century, stems directly from the limited tools most people had for producing texts. Beginning in the nineteenth century people were exposed to many mass produced images and in the twentieth century broadcast audio and video, but most people until very recently had little opportunity to produce and distribute images or audio or video themselves. With the advent of the World Wide Web in the mid 1990s, technologies of the visual can no longer be denied.

### **Technologies of the Visual**

In an often quoted passage in Ways of Seeing, Thomas Berger observes:

The visual arts have always existed within a certain preserve; originally this preserve was magical or sacred. But it was also physical: it was the place, the cave, the building, in which, or for which, the work was made. The experience of art, which at first was the experience of ritual, was set apart from the rest of life--precisely in order to be able to exercise power over it. Later the preserve of art became a social one. It entered the culture of the ruling class, whilst physically it was set apart and isolated in their palaces and houses. During all this history the authority of art was inseparable from the particular authority of the preserve.

What the modern means of reproduction have done is to destroy the authority of art and to remove it--or, rather, to remove its images which they reproduce--from any preserve. For the first time ever, images of art have become

ephemeral, ubiquitous, insubstantial, available, valueless, free. They surround us in the same way as a language surrounds us. They have entered the mainstream of life over which they no longer, in themselves, have power. (89)

Although Berger is discussing great art, his distrust of mass produced images--both explicit and implicit in this passage--is a widely held view. Berger is indebted to Walter Benjamin here, but the overall argument has been embraced by conservative and radical social critics. The assumption is that outside of cloistered art, images lack the capacity to encourage deep reflection, serious thought, and even the creation of identity. Instead, they play on the emotions, encourage stereotypes, and at best merely record reality--even though the recording of reality is hardly a simple process.

The recording of reality was a focal problem in Gutenberg's productive years in the middle of the fifteenth century. Some of the great masterpieces of the Italian Renaissance, including Botticelli's La Primavera, were painted on commission from the Medici and other patrons within twenty years of the printing of the 42-line Bible. We know from theoretical treatises from the painters such as Cennino and Alberti at the beginning of the fifteenth century that they took the imitation of natural objects and above all the illusion of three-dimensional space as their goals. The masters of the Italian Renaissance succeeded in establishing a dominant though often challenged ideal of literal naturalism that would not be completely overturned until the advent of photography brought painting into crisis.

Berger decries how great art loses authority when it is mass reproduced, but we often hear the thesis extended to claims that we now live in a culture based on images that is somehow different from our past. This claim is one of the great misperceptions of

the alphabetic literacy narrative. Preliterate peoples fashioned many everyday images. We know best only the pieces with most skilled craftsmanship, because they are the ones represented in museums. Less frequently exhibited are thousands of everyday objects from prehistoric and historic cultures. Every known culture, past and present, has a language of images. The primary difference, as Berger points out, is the means of reproduction. The rapid expansion of technologies of reproduction in the nineteenth century brought the modern era of the image. Most accounts of the book discuss the development of the steam press around 1814 and the rotary press in 1847--both which increased production from about 300 hand-pressed sheets a day to over 12,000 sections--and linotype in 1885, a process which automated composition and replaced handwork of routine type setting. Along with woodpulp paper, which came about 1875, these technologies made possible mass media. Less noted in histories of printing is the rapid improvement in engraving during the nineteenth century. Wood engravings, which had been replaced by copper, were brought back to illustrate newspapers. In 1804 the Times of London began to feature illustrations. Unlike earlier wood engravings, which were carved with knives, the new generation of wood engravers used the more precise burin. Steel engravings were also introduced by the 1830s, and the overall quality of all engravings increased dramatically by the 1850s. In the United States, Frank Leslie's Illustrated Newspaper began in 1855 and the more famous Harper's Weekly in 1857. Both covered the Civil War extensively and featured the work of outstanding artists including Alfred Waud and Winslow Homer.

More accurate engravings brought the desire for even more true-to-life images. As early as the Renaissance, artists aspired to reproduce exactly what they saw. In 1519

Leonardo da Vinci described the camera obscura, and many other artists experimented with it to explore problems of perspective. But it was not until the nineteenth century that technology developed to fix images. The daguerreotype, presented to the Académie des Sciences in Paris in 1839, quickly became a medium of popular portraiture. By 1851 the wet plate process made photography widely available. With their heavy and clumsy equipment, photographers began to document the world around them. Within a few years, the uses of photography proliferated, extending from art and ethnographic recording to postcards and pornography. In 1889 the first inexpensive Kodak cameras were marketed, made possible by George Eastman's invention of flexible roll film, and by the turn of the century much of America was pasting photographs in family albums. Photographs also became widely distributed consumer objects through the popularity of stereo viewers. A hand-held stereo viewer was introduced at the 1851 Great Exhibition in London's Crystal Palace to the delight of Queen Victoria. In 1856 twin-lens cameras made stereo viewers a long-running consumer fad. From 1860 to 1920, millions of stereo viewers were manufactured and sold. They gave the illusion of three-dimensional solidity, an effect that neither engraving nor painting could achieve.<sup>1</sup> For the first time a visual medium produced the illusion of actually seeing the object itself, conflating the image with reality. The new visual technologies of the photograph and stereoscope were deeply implicated in the expansion of industrial capitalism and colonialism. By making the world visible, it became appropriable and transformable.

The spread of photographs, postcards, and comics in the last decades of the nineteenth century along with the continuing proliferation of posters, illustrated books, and illustrated newspapers brought predictable conservative responses (see Harris).

Pictures were accused of offering an overly simplified view of the world, a view that lacked interpretation. Furthermore, photographs could be staged and retouched, thus giving misleading views of reality. Stronger accusations were leveled against the new genre of the comic strip, which began when a staff illustrator, Richard Felton Outcault, working for Joseph Pulitzer's The World, published a one-panel cartoon in 1895 called "Down Hogan's Alley," featuring a gap-toothed, bald little boy in a long frock. Shortly after, The World's printers were experimenting with colored ink and ran a test yellow on the boy's frock. Thus was born "The Yellow Kid," credited as the first comic strip and many others shortly followed. Comics were alleged to corrupt the morals and manners of youth.

Despite these warnings, the invasion of images accelerated. In the twentieth century image technologies have diversified to the extent that makes even a quick sketch impossible. The trajectory of bringing more and better images into printed texts led to the publication of Life in 1936, the first mass-market picture magazine.<sup>ii</sup> Even more transformative image technologies had been launched by the time Life appeared. Beginning with Edward Muybridge's photographic experiment to prove that galloping horses lift all four hooves off the ground at once in 1877, innovations in the photography of movement made motion pictures possible, and the commercial potential was quickly recognized. In the first decade of the twentieth century in Europe and the United States, film companies were created, special theaters were built, and very profitable distribution networks were established. By 1910, 26,000,000 Americans were going to the movies at nickelodeon theaters every week (Merritt 86). Television became technically feasible in 1931 and the BBC began broadcasting televised programs in 1936. In the United States

following World War II television grew with the speed of the Internet. The number of sets in use passed 1,000,000 in 1949 and 10,000,000 just 2 years later. By 1959, 50,000,000 television sets were being watched in the United States. With the development of telecommunications and computer technologies, the potential of television was convincingly demonstrated in live broadcasts from the surface of the moon in 1969. Less spectacular but no less influential has been the expansion of video and audio recording and production technologies to reach mass markets. The majority of American households now have answering machines and VCRs, and many have computers, video cameras, FAX machines, synthesizers, and sophisticated audio equipment. The most powerful combination of these technologies is the World Wide Web, which possesses a massive capacity for distributing images and already is a means for distributing audio and video.

The progression of computer-generated images in motion pictures gives a sense of where we are headed. The first major studio film to use any computer graphics was Future world, a 1976 science fiction thriller that computer-mapped the head of Peter Fonda on a monitor. Many people think that the battle scenes in Star Wars were created with computer graphics, but actually they were made with small scale models. The first film to use computer graphics to advance a plot line was Tron in 1982, where about twenty minutes of the movie was produced by computers. Tron, however, was a box office flop, and it was not until the 1990s with films like Terminator 2 that the commercial potential of computer graphics in films was realized. In 1995 Disney's Toy Story became the first film with every frame generated by computers. Digital humans are now used in dangerous movie stunts formerly performed by people. The era of the virtual

actor--the "vactor" or "synthespian"--cannot be far in the future. Craig Barrett, the chief operating officer at Intel, predicts that shortly the technology of the \$75,000 workstation that produced Jurassic Park will cost about \$2,000 ("Intel View"). He foresees that PC's in the year 2011 will use a chip that has as many as a billion transistors, compared with about eight million in today's most advanced chip. The web sites of Ben Syverson, Jessica Draper, and Kate Levy only hint at what might be just around the corner.

### **Literacy by Design**

Even after a century and a half of saturation with mass-market image technologies, the heritage of alphabetic literacy from the Enlightenment still dominates within the academy and in literacy instruction in general. The totemization of alphabetic literacy and the denial of the materiality of literacy have had the attendant effect of treating images as trivial, transitory, and manipulative. Visual thinking remains excluded from the mainstream literacy curriculum in the schools, and it is taught only in specialized courses in college in disciplines such as architecture and art history. When in the early 1960s one of the first designers of three-dimensional computer graphics, Lawrence G. Roberts, looked for scholarship on perspectival imaging, he found a dearth of work in the twentieth century and instead had to refer to German geometry textbooks from the early nineteenth century to find a mathematics of perspective.

Perhaps because images are so ubiquitous, we in the academy have paid so little attention to how they work. But an even stronger reason may be that images have been so thoroughly appropriated by advertising. No aspect of our culture is more thoroughly despised from the viewpoint of the academic humanities than advertising. Advertising is the discursive anti-Christ, doing everything that the tradition of academic literacy detests.

It persuades with images; it acts on the emotions; it bends and stretches language; it employs humor and parody; it can't always be explained; it is anonymous. To parade out the usual statistics about how we see over three thousand ads a day and how today's teenagers will likely spend a decade of their lives watching ads is only stating the obvious (Twitchell 2). It is difficult to find any public space free of advertising or listen to or watch any public medium, including the public channels, without encountering ads. The state of Iowa even sells advertising in its income tax booklet. Universities have cashed in by selling sponsorship of sports teams to shoe manufacturers, signing exclusive deals with soft drink companies, and by selling rights to their own images. The Penn State football jerseys that used to be distinctive for their lack of adornment now display the Nike logo.

Advertising is a \$158 billion business in the United States and has grown to around \$200 billion in the rest of the world, with Western-style advertising quickly expanding in emerging markets like China and Vietnam. Nonetheless, the academic response to advertising continues to ignore it, to accuse it of deception, and to dismiss it as trash. The basic criticisms of advertising remain the same: either by outright deception or more insidiously by creating wants and desires that otherwise would not exist, advertising causes people to purchase goods that they have no wish to purchase. Herbert Marcuse is representative in arguing that advertising creates false needs, which perpetuate misery and injustice: "Most of the prevailing needs to relax, to have fun, to behave and consume in accordance with the advertisements, to love and hate what others love and hate, belong to this category of false needs" (5). Certainly there is a long list of products consumed today for which markets barely existed before advertising: cosmetics,

deodorants, soft drinks, credit cards, household cleaning products, cigarettes, bottled water, insurance, state lotteries, mouthwash, and most over-the-counter medicines. The usual account of advertising is that it depends on an irrational connection between the product and an object of desire. Throughout most of this century, print ads and later broadcast ads depended on a narrative of the object of desire being attained through purchase of the product. Most often the promise was one of sexual success, either in attracting a partner or in keeping one. The right choice of chewing gum or mouthwash got the partner; the right choice of coffee kept him interested.

Mass media ads of today depend far less on narrative coherence for their appeal. By the late 1980s advertisers realized that the old tactics would not work for an audience over-saturated with advertising and overly cynical. Thus the emphasis in advertising for a number of products shifted from story to style as advertisers became increasingly self-referential, recirculating images drawn from the cultural landscape and most often from media representations. This mode of advertising--lifting images and meanings from one context and placing them in another--resists the simple analysis of attaching a product to an object of desire. Instead, advertisers engage in a conversation of images with their audiences. Advertisers are both manipulator and manipulated because they must interject their product into an ongoing system of signs. Their effect depends on extending a set of cultural associations.

Since many of those associations are charted on bodies, it is no accident that cultural critics have had to explore the consequences of advertising on bodies in terms other than the creation of false needs (one such exploration is Blake Scott's essay on "Confide" elsewhere in this collection). At no time before in advanced nations have so

many people of different genders, ethnicities, age groups and social classes participated in the altering of their bodies through transplants, implants, augmentations, lifts, and tucks along with intense regimens of exercise and dieting. Clearly advertising is participating in a much larger cultural discourse where fat is viewed as ugly and aging as repulsive, but more importantly, where personal empowerment is expressed in terms of controlling ones' body image. Thus human agency can be summed up in Nike's slogan "Just Do It!" The problem for scholars critical of the effects of consumerism and who advocate change is how to get their students to interrogate the chains of assumptions in the rhetoric of personal empowerment.

An alternative approach to responding to ads comes from the Canadian media activist group, The Media Foundation, that challenges advertising it sees as harmful by subverting it. The Media Foundation publishes an ad-free magazine, Adbusters, and it supports the Adbusters Web site, both of which take on specific advertising campaigns with clever spoofs. The group's president and former ad man, Kalle Lasn, explains Adbusters' mission: "I don't have any problem with advertising. I love advertising. We are into selling ideas, not products. We're social marketers, not product marketers. To me, that is a whole different kettle of fish" (Lewis). At the top of the Adbusters' sabotage list have been alcohol and cigarette ads. Because ads are in the public domain, their copyright status is questionable, and Adbusters has pushed that line. One target has been Absolut vodka. "Absolut Impotence," shows an empty, shriveling bottle with a caption quoting Shakespeare: "Drink provokes the desire but takes away the performance" (Figure 8). In February 1992 Absolut threatened to sue Adbusters, but Absolut quickly backed down

when they recognized that the suit would lead to a public debate about protecting advertisers who sell dangerous products.



Figure 8. Absolut Impotence. <http://www.adbusters.org>

A more difficult challenge for Adbusters are ads which fetishize glamour. They have launched a spoof campaign against one of the most exploitative marketers, Calvin Klein, using the gray-scale tones Calvin Klein is famous for (Figure 9). Adbusters produced a 30-second spot that points to the connection of eating disorders with the worship of the adolescent body in fashion images. The commercial begins with a soft-focus image of a thin, naked woman accompanied by a voice-over saying, "Obsession, fascination, fetish." The writhing woman appears to be in slow-motion ecstasy before we realize that she is vomiting into a toilet bowl (Figure 10). The voice says: "Why do nine out of 10 women feel dissatisfied with some aspect of their bodies? The beauty industry is the beast." Several women's groups joined Adbusters in purchasing four spots on the CBC show, Fashion File, and they attempted to buy airspace on CNN's Style with Elsa Klensch. Both networks refused to run the Adbuster's uncommercial.<sup>iii</sup>

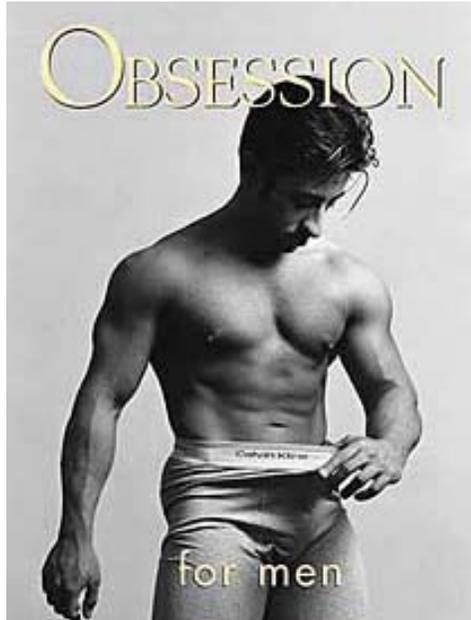


Figure 9. Obsession for Men

<http://www.adbusters.org>

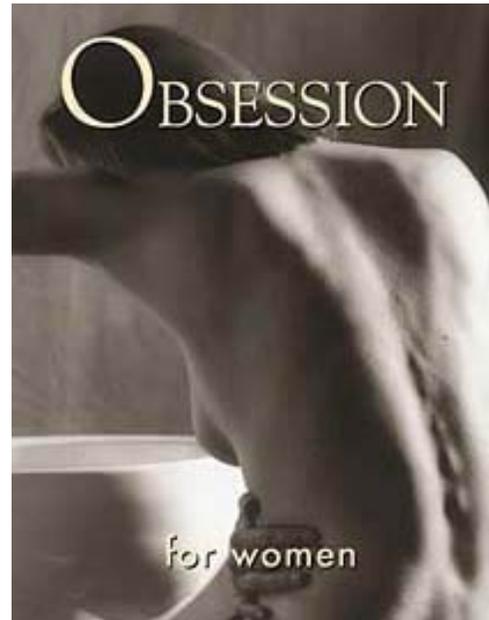


Figure 10. Obsession for Women

<http://www.adbusters.org>

Even though the Adbusters' uncommercial was censored by the networks, it and other uncommercials have been viewed by many people via the World Wide Web. The Adbusters' URL is frequently mentioned in lists of favorite Web sites in newspapers and on individuals' home pages. The Adbusters' Web site offers a critique of the visual iconography of the perfect body, and the "Just Do It" rhetoric of personal empowerment embedded that iconography. Adbusters seeks to redefine agency by "trickle-up" activism. The "Culture Jammers Toolbox" section of the site gives production advice on how to introduce noise into focus groups, compose alternative print ads, make television spots, buy television time, and subvert billboards with spray-painted modifications.

The "Culture Jammers Toolbox" says nothing about making Web sites, but the Web has become the primary medium for grass roots media activism. Among the tens of

thousands of the Web sites of individuals are many pages devoted to media criticism and parodies of advertising. This activism has come at a time when the Internet has become the battleground for the deregulated corporate giants, where control of the coaxial cable and fiber-optic conduits represent only a small part of the potential fortunes to be made from an array of services carried through the pipe: advertising, credit cards, banking, entertainment, news, and sales of other products. Given the corporate vision of the Internet as the ultimate Home Shopping Network, is there reason to expect anything other than a more accelerated, more international, and much more profitable global consumer culture?

### **The Web and Material Matters**

In spite of all the talk about the Internet as cyberspace and a virtual world, the materiality of the Internet as a medium is unavoidable. You sit in front of a machine that has to be turned on and connected to the net. And if you want to access the resources of the World Wide Web, you need at least a 28.8 Kbps modem and a computer with enough memory to support the current versions of Netscape or Internet Explorer. Kate Levy puts it bluntly: "My homepage uses frames. If you can't handle this, I'm sorry." In the United States the lines do not go to every neighborhood, and in the rest of the world, almost the entire continent of Africa outside South Africa is not online. At present the Internet continues the one-way flow of information from the First to the Third World. Can the Internet be a factor in promoting a two-way flow between the margins and the center?

One of the groups least likely to become a significant presence on the World Wide Web is the Ejército Zapatista de Liberación Nacional, whose members rose in rebellion in Mexico on New Year's Day, 1994, the day the North American Free Trade

Agreement went into effect. The Zapatistas are primarily indigenous people from the Lacandón mountainous jungles of the state of Chiapas, Mexico's southernmost state bordering on Guatemala. They take their name from Emiliano Zapata, hero of the Mexican Revolution, who was the champion of land reform and indigenous peoples in the south of Mexico. Estimates of the Zapatista forces vary, but the high-end guess of the number of well armed troops is only 3,000.

The uprising took the Mexican government by surprise. When Luis Donaldo Colosio was unveiled on November 28, 1993, as the presidential candidate of the governing Institutional Revolutionary Party (PRI) in Mexico, the policies of President Carlos Salinas, in his last year of a six-year term, appeared to be firmly in place. The signing of the North American Free Trade Agreement (NAFTA) cemented Salinas' free-market economic policy; and opposition on the Right and Left was not attracting wide popularity. Colosio seemed to be the ideal, hand-picked candidate to continue Salinas' modernization policy. But on January 1, the day that NAFTA went into effect, the smooth road of Colosio's ascendancy suddenly came to a deep rut. The Zapatistas, unsuccessful in their previous efforts to address the misery of the people in Chiapas, called on Article 39 of the Mexican Constitution, which states that "the people have, at all times, the inalienable right to alter or modify the form of their government." They seized four towns in Chiapas including San Cristóbal de las Casas.

In other years the news of the uprising would have been suppressed in Mexico and little noticed abroad. Most people in the United States have never heard of Chiapas and likely would have overlooked a brief report on the back pages of a newspaper, just as they paid little attention to the concurrent massacres of people in East Timor. But the

Zapatistas had two great allies--their timing and their innovative use of communications technologies. The Zapatistas faxed their Declaration of War to newspapers, to radio and television stations, and to the international press. They represented themselves as the heirs to the long struggle for social justice in Mexico--the legacy of Emiliano Zapata and the Mexican Revolution of 1810. On the second day of the uprising, they held theatrical press conferences, where men, women, and children wore black ski masks. They invited reporters from the major international papers including Der Spiegel, Le Figaro and the New York Times, the independent Mexican dailies La Jornada and El Financiero, and European television crews, but refused access for the pro-government media in Mexico (Peña 91). The primary spokesperson for the Zapatistas, Subcomandante Marcos, was photographed with a pipe sticking out of his mask and a Zapata-style bandolero with shotgun shells that didn't match the rifle slung over his shoulder (Figure 11). The Zapatista media campaign within Mexico was enormously successful, forcing the government to declare a cease-fire on February 9. On the day of the cease-fire, over 100,000 people in Mexico City marched in support of the Zapatistas. A month later, the hand-picked PRI candidate, Luis Donaldo Colosio, was assassinated after expressing sympathy for the Zapatistas. By the end of the year the Mexican economy had crashed with a huge flight of capital out of the country, and former President Salinas, a Harvard graduate, had fled in exile.



Figure 11. Subcomandante Marcos, Spokesperson for the Zapatistas.

The Zapatistas effectively used the Internet for an ongoing alternative commentary on politics in Mexico. They critiqued NAFTA and the Mexican government's treatment of indigenous peoples, and they disputed the modernist view of peasant societies as isolated and backward, societies that should be relegated to the past as quickly as possible. They have explained why it is important to have a viable and sustainable peasant agriculture if the rain forests of Chiapas and the cultures of the Mayan people who live there are to be preserved. The Zapatistas have been greatly assisted by academics in Mexico and the United States, who have created distribution sites and translated communiqués. Online discussion lists concerning Chiapas were formed in Mexico and in the United States, and a Web site, "Ya Basta!," was begun in spring 1994 by Justin Paulson, a then undergraduate student at Swarthmore. The Web site itself has become much publicized through articles in many magazines and newspapers

including The Guardian (U.K.) and Reforma (Mexico). In April 1995 the Mexican Foreign Minister, José Angel Gurría, declared that the uprising in Chiapas is a "Guerra de Tinta y de Internet" ("a war of ink and of the Internet").

The cleverness of the Zapatistas in distributing images has been one of the keys to their success. Subcommandante Marcos even created a cartoon character, a loquacious beetle named Don Durito, who skillfully avoids being stepped on. To reach sympathetic people in advanced nations, the Zapatistas have taken advantage of the graphic power of the Web to issue many images of themselves, images that portray both their revolutionary struggle and the daily lives of indigenous people (Figure 12). Without the images, I doubt that the numerous Web sites around the world that support the Zapatistas would be quite so prominent. The Zapatistas with a little help from their friends have shown how the disempowered can also engage in cross marketing if they understand the material effects of visual literacy.

After years of intermittent peace talks, the Mexican government still has not granted the people of Chiapas the right of self government. But if the Zapatistas have failed thus far to win a just settlement, the government likewise has failed to restore credibility in its ability to lead the people of Mexico, and more violent uprisings of other groups have occurred in Guerrero and other states. The Zapatista rebellion exposed quickly that the only people in Mexico who would benefit from NAFTA would be the urban elites in the north and in Mexico City, while the indigenous peoples and the poor would suffer even greater marginalization.



Figure 12. Venustiano Carranza. Casa del Popolo. 1996. Photo by Massimo Boldrini.

<http://vivaldi.nexus.it/commerce/tmcrew/chiapas/foto/6.htm>

The Zapatistas also give us an important lesson in material literacy. In the face of claims that computer-mediated language and images have broken with the past and have lost reference to the perceived world, the Zapatistas have shown that, while language and images are increasingly self-referential, they still have material consequences. The example of Chiapas demonstrates that people still adapt new technologies of literacy for their own purposes, that literacy can still be used to promote social justice, and that history, including the history of literacy, indeed still continues.

## *Notes*

1. For critiques of the oral-literate dichotomy, see Daniell, Brandt, and Street.
2. In this respect the achievement of Gutenberg compares to James Watt, who is often credited with inventing the steam engine. In 1765 Watt repaired an existing steam engine designed by Thomas Newcome and made a minor modification. This modification allowed the engine to more efficiently pump water out of coal mines, and Watt became wealthy as a manufacturer of steam-driven mine pumps. The gearing system that allowed the steam engine to be used to power factories, making possible the Industrial Revolution, was invented sixteen years later by one of Watt's employees, William Murdock.

3. The research on vision that led to the development of the stereoscope was done in the 1820s and 1830s, thus preceding the development of photography. See Cary, pp. 116-136.

4. The first issue of Life sold out all 250,000 copies on the first day of its release, and soon a million and a half copies a week went into American homes. Life was preceded by European periodicals that used glossy paper, making possible a photographic realism unavailable in newspapers. Life, however, was unique in allowing photographs to tell its stories, relying on the visual literacy of its readers. It was also the first magazine to generate the majority of its revenue from advertising, which also depended on photographs. Its success relied on the ambiguity of the title--that the images in the magazine are not about life; they are life (Berger, About Looking 50).

5. Adbusters also attempted to buy time on CNN, ABC, NBC, and CBS for a spot declaring the day after Thanksgiving, Buy Nothing Day. The spot opens with an image of a bloated pink plastic pig, wiggling and grinning. The voice-over says, "The average North American consumes five times more than a Mexican, ten times more than a Chinese person and thirty times more than a person from India." Then the spot cuts to a bulldozer piling up a mountain of trash in a landfill. The voice continues, "We are the most voracious consumers in the world. . . . Give it a rest. November 29 is Buy Nothing Day." CNN ran the ad once, but the other major networks refused it. Richard Gitter, NBC's vice president of advertising standards and program compliance, says that NBC doesn't air controversial ads. Gitter continued with more candor, "this action was taken in self-interest. It was a spot telling people, in effect, to ignore our advertisers" (Oldenburg).

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