DESIGNING TEXTS: Teaching Visual Communication

Edited by

Eva R. Brumberger

Arizona State University

and

Kathryn M. Northcut

Missouri University of Science and Technology

Baywood's Technical Communications Series Series Editor: CHARLES H. SIDES

CHAPTER 14

Teaching Visual Rhetoric

Stephen A. Bernhardt

Almost 30 years ago, I wrote an article that found quick acceptance at College Composition and Communication: "Seeing the Text" (Bernhardt, 1986). I argued that we ought to start teaching a visual rhetoric, encouraging students to consider the visual design of the text as well as its verbal exposition. I came to this conclusion during my dissertation research at the University of Michigan. I was working within a systemic/functional linguistics framework (after M. A. K. Halliday), sorting out the complications of describing scientific text structures on the basis of field (logical subject matter), tenor (interpersonal relationships as expressed through the text), and mode (genre or text form). My method was to attempt to gather a cross section of scientific documents that represented the range of publications surrounding a controlled topic: wetlands ecology. The subject was sensitive then, as now. As we continue to lose wetlands to development, we lose a most productive, ecotonic resource: the highly productive edge habitats. I decided I could control for subject (field of discourse) and model the range of variation in text types.

the visual design also expressed interpersonal meanings (tenor), as writers, or readers a text, insofar as texts present their arguments or establish their evidence via visually as established genres when there emerge recurrent patterns of textualization. To a ative" texts. This visual dimension was most prominently an aspect of textual mode or communities were represented in the visual surface of the text. informative design or objects (such as photos or charts) within the text. And sometimes the particular linguistic shape a text assumes, associated with what we recognize be represented on a continuum from "visually informative" to "nonvisually informtexts without attending to their visual rhetoric. A primary dimension of variation could became evident to me was that there was no good way to describe the features of these U.S. Forest Service, and various nongovernmental advocacy groups. What quickly the University of Michigan Fisheries Lab, the Great Lakes Basin Commission, the lesser extent, the visual shape of a text was also related to field or logical structure of Environmental Protection Agency, the Michigan Department of Natural Resources. interviewed scientists in such organizations as the Fish and Wildlife Service, the In addition to sampling textbook chapters and journal articles, I gathered texts and

ind visual connotations. or them to do it with words. For our field, the term composition had lost its physical personally relevant essays, and although we urged them to show, not tell, we meant of expressive writing, a la Ken Macrorie and Peter Elbow. Our students were writing words, all thoughts, no pictures. At the time, the late 70s, we were deep in the throes ousy teaching essays with well-developed paragraphs, consistently double-spaced, all saw in my samples. The field of composition I took to be part of the problem. We were eally help account in a useful way for the very wide range of text designs that I established genres such as memo and report formats, but such descriptions did not designing a text. Business communication offered some helpful descriptions of welldesigning a good chart or graph, as important as that is, is not the same thing as Technical communication offered some work with regard to visuals in texts, but helped explain how texts differ in structure, particularly visual or graphic structure. most impoverished of the five canons of rhetoric, with little useful scholarship that van Leeuwen came much later.) I found the canon of arrangement to be perhaps the tional linguistics have much to say about visual rhetoric. (Gunther Kress and Theo rhetoric that was helpful, nor did those working in London School systemic-funcsomething of a quandary. We simply did not have a literature in composition and Knowing I had to address the visual rhetoric of these texts, I was faced with

extbook literature related to graphic design, informed by practitioners' experience. xperimenting with document redesign to improve usability. And there was also a thers were thinking in systematic ways about how to make documents usable and vork was being done at the Document Design Center, where Janice Reddish and mportant things to say about an emerging visual, electronic culture. More empirical rinting press, television). Media and culture gurus like Marshall McLuhan also had f literacy, particularly how technology shifts transform literate experience (writing, erceive. Walter Ong, in similar ways, was writing persuasively about the nature o print literacy on members of preliterate, verbal cultures, beginning a lively and xpansive argument about the broad effects of literacy on the way we think and Also within anthropology, Jack Goody argued about the consequences of the transition ction, closely tied to ongoing activities, captured in his construct "context of situation." cholars such as Bronislaw Malinowski understood language as a form of cultural of perception, especially Gestalt theory, and from anthropological linguistics, where The most directly relevant literatures I could find came from the psychology

ournal, the publication of "Seeing the Text" was delayed for 5 or 6 years because the Although my article was accepted immediately as an important new topic for the e have come in establishing a literature of visual rhetoric and claiming it as our own. or theoretical arguments. The resource list at the back of this volume shows how far ulture, the works of Ong, Goody, and McLuhan all continue to be strong starting points chriver's work). And if we want to think large about literary, visual, and electronic ocument design research (note the frequent citations throughout the volume to Karen or understanding visual rhetoric, as does text linguistics (see Odell, this volume) and is many of the chapters in this collection attest, Gestalt theory remains quite useful nd visual rhetoric that we make interdisciplinary moves when our own field is lacking. I used whatever I could find. It continues to be true for research in document design

> of texts in the teaching that we do and in the research that undergirds our teaching map visual rhetoric to our practice. It seems to me now, as it seems to the authors in editor of CCC, Richard Larson, did not want to publish it on its own, but with genre. We move from invention (a creative activity well-attended to by Kostelnick in broadly about writing as design). As writers, we design information or documents among our students. These skills are not simply a matter of tools or technologies. this collection, that we are finally attending broadly, as a field, to the visual rhetoric "companion pieces," and there were none. As a field, we were not quite ready to a variety of settings pursue the task of teaching a visual rhetoric. increasingly hybridized). This collection offers rich insight into how instructors in this volume) toward arrangement and delivery (print and electronic documents, now to communicate about some subject matter to some audience by way of an established solutions to the problems posed by life (see Carnegie in this volume for ways to think Texts or documents are responses to situational exigencies—they represent design We realize that we need to cultivate skills of visual rhetoric and document design

addresses such concerns by describing a framework based on the kinds of discourse animations and video and variously scripted and displayed texts. Odell, in this volume. and information databases and clouds—as well as about multiply-mediated texts their shapes. We now must think about the shape of electronic texts-of Web sites essay was clearly thinking about how we compose texts in a somewhat limited print informative ways what kinds of text design skills we could be teaching students, but this Robb Kramer, my graduate assistant, attempted to map in very pragmatic and visually on Screens" (1993). A third piece, "Teaching Text Design" (1996), co-authored with these arguments in fuller form in "The Shape of Text to Come: The Texture of Print electronic texts as it closed its argument; a few years later, also in CCC, I expressed ing film and video. "Seeing the Text" expressed some inkling of the transition to moves all authors must make, no matter what media they are working within, includsense, not about film or video or multiply-mediated creations. Over the years, texts themselves have become more complicated and varied in

(1990) College English: discussion board, as reported by Marilyn Cooper and Cynthia Selfe in their article in highly verbal style, with long paragraphs, an academic tone, and very little visual relief. Students at Michigan Tech noticed the irony and called me out on their class "Seeing the Text" was essentially an academic argument, written and presented in a These subsequent publications of mine were in part triggered by the irony that

Sept. 24, 1988

Well folks, I finally got caught up on the readings. . . . Bernhardt ("Seeing the Text") seemed pompous and confusing: "We might think of texts arranged along a continuum, from texts at one end which convey relatively little information essay would be cause for a re-write. . . . Velcro be a guru in his field but a 52-word sentence in the opening paragraph of my blah, blah, blah. C'mon Bernhardt-come up for air now and then. This guy may of non-alphabetic symbols, such as numbers, asterisks, and punctuation." . . . Blah, such visual cues as white space, illustrations, variation in type face, and the use visually, to texts at the opposite end which reveal substantial information through

October 2, 1988

"view the rhetoric of visual design as an evolving art."... Everything he has said evaluate or build into an experimental design." He goes on to say that we should clues us in . . . "This aspect of interaction between text and reader is difficult to tative language so we would view them as gospel truths. . . . Here's how Bernhardt I'd like to say a word about the readings, which, judging from some comments, have proved less than fascinating to some of my classmates. Bernhardt, while not text. What bothers me is that they were nothing but opinions couched in authoribeing easy reading did express some solid opinions on increasing the readability of

I agree that it is disheartening to put precious time into reading an article that you believe will hold "all the answers" to your search for the right way, and ... find that and in print. There are good ideas there, and things to think about, but no hard and you have really been reading is another conference like this one-but world-wide fast facts. So what's new? Did you expect this profession to be different from

why visual evidence could have made this article more compelling. I confess I enjoy students were close to thinking about what a visual argument might look like and more appreciative, at least of the visual design. don't believe those Michigan Tech students felt a part of my audience for "Seeing through the article, the two-page spreads adopt an increasingly sophisticated design. the text to Technical Communication Quarterly as a .pdf file. As the reader moves desktop publishing software to lay out the article as facing two-page spreads, presenting and students in our imagined audience. We created a grid for the article and used the latter piece, Robb Kramer and I tried to write in ways that included both teachers shifting as it moved into new graphic, electronic, and visually informed spaces. With databases, and with new graphical user interfaces. I hoped to anticipate how text was what people were doing with hypertext, with CD-ROM learning tools, with textual "Teaching Text Design." With the former piece, which was pre-Web, I tried to capture visually informed exposition in "The Shape of Text to Come" and especially in 52-word sentences." But the student comments also encouraged me to attempt more New Mexico State University (where I was teaching) that remarked "Bernhardt writes when I noticed graffiti some wag had penciled above the urinal in the men's room at in the College English article lifted my spirits, in the same way my spirits were lifted any attention whatsoever to anything I have ever written, and so seeing these comments the form of a traditional journal article, including a 52-word opening sentence. These the Text," but I hope, if they read "Teaching Text Design," that they might have been We worked hard on the visuals that accompany the text, using drawing programs. I Part of the problem here was my attempt to make arguments about visual design in

our teaching and our publications. We can push on our own genres of academic writing to be inclusive of audiences other than ourselves and to exemplify what visual rhetoric looks like. Certainly, the journal Kairos has moved us in this direction, as has the As this volume makes clear, we should continue to pursue a visual rhetoric, both in

> attention of a broader public. at large, and to do so we need to design texts and pursue issues that capture the well, to create visually literate individuals, but a larger goal is to influence the culture takes the student writer as primary. One of our goals is certainly to teach our students sition classes with new ways of writing, new genres, and a sense of audience that new e-publication site Writing Spaces, which directly addresses students in compo-

and skillful as well. I taught an upper-level technical writing class during spring as well as for a correct and professional style. I tend to agree with authors in this accommodation, for well-designed visuals, and for an inventive and usable design, rubrics for each assignment, with criteria for purposeful organization, for audience of templates. We worked initially from case studies, so we could discuss and compare try to find models to emulate, and we talked about the advantages and limitations they do get consideration for stretching and being inventive). I suggested they always reward them for experimenting (in my classes, students don't get an A for trying, but the text represent?), I encouraged the students to experiment with form. I promised to and situation (what kind of work was being accomplished or what kind of action did text must be designed with consideration for those who would read or use the texts students were to construct visually informative texts. I began by suggesting that every had kept me out of the rotation. What surprised me was how ready and well-equipped centrators. This was a class I had not taught in several years-department chairing approaches to teaching visual rhetoric, our students have been growing more literate criteria is the best way to get values out in the open and establish a shared agenda volume (see especially Ishizaki and Lauer) that defining outcomes or stating evaluation the texts we constructed, before moving toward more open-ended problems. I offered From a rhetoric that emphasized purpose (your own as well as your readers' purposes) 2010 to students from various disciplines, including some professional writing con-Without being told, and reinforced for doing so, students typically don't know that they are expected to design as well as write texts for class. Over the years, as we have been growing increasingly sophisticated in our

it with the class. A classroom management system, such as Sakai, also helps, as drafts useful to simply ask someone who has done fine work whether she minds discussing can prompt the follow-up question, "Do you mind if I pull it up on the projector?" comments are headed. A question like, "Who has some really good work in progress?" what others are doing, what other reviewers are saying, and where my own teacherly and revisions can be posted as part of peer review activities, and students can examine work, as Lauer notes so perceptively in her contribution to this volume. Sometimes it is who had achieved particularly compelling designs. Getting student texts out into the public space of the classroom is one of the best ways to promote strong and inventive inventive designs, they start to realize they have some license in the class to be that image? Do you need to cite a source on that visual?" When students see really did you decide on those colors? What program were you using? Where did you find Much of the learning then takes place through sharing: "How did you do that? Why design. It is important to find ways to defuse the heightened anxieties of sharing As we compared our texts during peer reviews and after revisions, we discussed

suffice but usually won't impress. creative. They need to know that playing it safe or filling in a template might sometimes

pitch, a Web site to promote the technology, or an installation and operation manual yes, some less impressive). The student teams went in various directions with some very impressive results (and (We called this repurposing the information.) They might prepare a sales brochure or with the information from the briefing but change the purpose, audience, and situation. No blue-sky proposals. The follow-on assignment then asked student teams to work and medicine. Each technical briefing was to demonstrate awareness of local context. in Haiti-infrastructure, communications, logistics, and availability of food, water inform the text. Each team did some research to determine the on-the-ground situation be designed to accommodate different audiences, and what kinds of visuals ought to might look like, what kinds of information it would need to contain, how it might sell, or government aid coordinators). We talked about what a technical briefing organizational identities (such as relief organizations, companies with a product to to assist with disaster relief in Haiti following the earthquake. Student teams assumed assignment in this course that worked well asked students to develop a technical briefing on a material technology (housing, medical products, communication devices, food, and water) that would be useful and economical, with the potential to be scaled up Later in the term, we moved toward more open problems of document design. Ar

starting over. I agreed with them that they had done great work, and we left it at that. in their other classes. The voice narration had to be done in one shot, since they didn't spoken by the biologist. It was all very impressive. Their peers were wowed. "How did have the editing tools they would need, and if they made changes, it would be like me not to. They had already invested tons of time, they said, and they were behind to that last question.) When I asked the team for some minor revisions, they begged you do that? What did you use? How much time did it take?" ("A lot" was the answer voice-over narration, following a well-prepared and professionally delivered script, temporary site with promised utility for the future. The animation was accompanied by how the rubble of destroyed buildings was repurposed into a healthful, well-designed, areas, and coming down, around, and through their tent city, showing along the way to create a fly-over video, circling above Haiti, zooming in on the earthquake-affected other features. They looked at the cost of the crusher machine and transport issues. drawings, with specifications for dimensions, materials, drainage, rain capture, and upcoming rainy season, and eventually provide a substrate for future construction. realized that concrete and cinder block rubble were everywhere, though not usable in technology, to produce an aggregate that could be used as a base for tent cities. They political scientist. They proposed bringing in a concrete-crushing machine, an existing That was all part of their briefing. For the repurpose, they used an animation program The students used their knowledge of drawing tools to render a tent site in 3-D its current form. But crushed rubble could provide a stable footing, drain well during the Most impressive was the work of a team with an electrical engineer, a biologist, and a

visual rhetoric successfully. We set a task, establish certain criteria and expectations, provide help as needed, and encourage students to conduct their work in the open so When assignments like this work, I think we can congratulate ourselves on teaching

> audience, it was like being in a helicopter and coming in close, hovering, looking under task and set their own challenge. They were really proud of their work. Part of what was them, and they were not hesitant to say they spent a lot of time on the steep side of the learning curve. But they were not resentful—they had chosen the tools and the and animation programming. They said they had some beginning familiarity with students call upon skills they have and advance their skills. I quizzed the students in time in class so teams can function. We may not teach the tools directly, but let others can see and benefit from what is going on in the room and out. We provide was visualizing how they could communicate complex information. how concrete rubble could provide a foundation for a tent city. The key to their success the roof of the central structure, seeing the arrangement of family tents, and visualizing really were showing the audience what their material technology looked like. For the information that was extremely well-suited to the occasion—a fly-over animation. They important here was that the students chose a way of arranging and delivering technical these tools, but had not really created anything, so there was a ton of new learning for the concrete rubble group about their preexisting software skills with design rendering

and she had to explain to me that it was her first attempt at coding html. She took the site she was doing and why only through interaction as her project developed. My first work disappears in the surface of a smooth text. As the instructor, I discovered what compare the experience with coding by hand, and she produced a Web presentation wanted to get at least some rudimentary understanding of the programming logic.) She had never created a Web site, but it was something she wanted to do. She did not model and rendered it using simple drawing tools, with callouts and explanatory text sand, like the diatomaceous earth filters on some pools. She developed her own device be constructed from very simple materials using successive layers of biomass and being on a team, and to pursue the idea of a low-tech water-filtering device that could civil and environmental engineering student chose to work on her own, as opposed to course; advanced her understanding of drawing, document design, and Web coding in her own coding skills. I thought it was important that this student set her own through a round of redesign, with some improvement, but persisted in sticking to thought on seeing her Web site briefing was that it was primitive and poorly designed, important that has to do with process, motivation, and learning. Most of the hard these days. If we simply look at the end products of work in design, we miss something that looked much more polished and much closer to what we are accustomed to seeing repurposed her Web-based technical briefing, she decided to use an authoring tool to it looked clunky, but she was very happy with what she had learned. When she I assumed we had passed that point some time ago, but no, here was a student who we started teaching Web design. Should we teach authoring programs or html coding? recall arguments among technical communication instructors some years ago when want to use a Web-authoring tool but program the html herself. (Some readers may her drawing skills were rudimentary. She decided to present her briefing as a Web site. that would not have satisfied her. She wanted to draw her conception herself, even if accompanying the illustration. She could have found drawings and clipped them, but When she presented to the class, she didn't boast about her work, acknowledging Other students were at different places in terms of their design and tool skills. One

be worthwhile. I found her enthusiasm for the project delightful. important ways on her own terms; and demonstrated that a crude design can still

and format a professional text. We discuss how to create texts that could be printed, but that would also easily port to an online environment with good fidelity. to generate tables of contents or lists of figures, and knowing, in general, how to design and headers, working with heading levels, knowing how to insert visuals, knowing how for their documents rather than formatting on the fly, knowing how to format footers agree to work that way too.) My learning goals for students include creating style tags and can manage other kinds of files, LaTeX or some open-source program, we can have coming in. (Typically, this means Microsoft Word, but if students are capable I want students to leave class with much better control of their word processor than they some extent. That said, there is much that I teach directly and expect all students to use. settings. Allowing students to choose their own tools addresses the complexities to good, uncomplicated access to systems and software, whether in face-to-face or online to preserve flexibility. It is typically faulty to assume that all students will have software up to students accords well with Lauer's sense (this volume) that we need ments generally suggest that a given project can be completed as a print or online text, and I tend to leave the choice of tools up to the students. Leaving the choice of to experiment in order to see whether and how some tool might be useful. My assigninventive and to choose their own tools in order to become more proficient or simply It is evident at this point that my teaching style encourages students to be freely

work together with accompanying text? rhetorical questions: How do people perceive data? How is a table read? What kind of work does a graph do? What story does a visual tell? How does a visual object I find I can demonstrate a lot of these tool skills very efficiently using a projector how the table editor or chart tools work, but it also affords an opportunity to ask broader while they follow on their laptops. Examining the visuals together allows us to explore charts in Microsoft Excel, we display them and I ask students to explain their approach. I give them and then with tabled data in their own assignments. When students create on table formatting, using the excellent tools in Word, working first with information work, and how Word handles inserted objects. We spend serious time in class working professional writers need: how to use the drawing and charting tools, how captions Like Markel in this volume, I want students to know something about the tools that

rhetorically about what is presented to them as simple, handy, software tools. students engage with the ready-to-hand tools in Word, prompting students to think Markel (this volume), for example, suggests some very clever assignments to have mechanical forms of learning, but that does not mean they are without rhetorical import. pagination, text boxes, and the equation editor. These are technical and somewhat comments and track changes, headers and footers, rules and borders, numbering and It is fairly easy to take students through style definitions, page and section breaks,

io check to see if text elements are controlled by defined tags, and also whether the matting by means of style sheets with defining tags, it is very simple during evaluation To take a simple but I think important example, if we want students to control fordifficult to establish that students are developing a productive or critical visual rhetoric. It is also fairly easy to assess whether students control the tools, but perhaps more

> rhetoric and document design than the documents themselves. tive cover memos tell us more about what students have been learning about visua memos that students use to cover their texts upon submission. Sometimes those reflecin terms of document design. We can see whether our learning goals are expressed suggested by DeVoss and by Northcut (this volume), can call students' attention to at micro- and macrolevels. To focus attention, our rubrics and evaluation criteria, as through their texts, but we can also assess learning through the evaluative, reflective important learning goals and can help students keep their eye on what is important tools and resulting textual objects offer us ways to think about choices and effects questions about what difference one choice or another makes in rhetorical effect. The opportunity to ask about how well a text meets functional or aesthetic design criteria The tools are heuristic: once students start playing with the tools, we can start asking so on are well-managed. Once students are in control of the tools, we then have the tags are well defined; that is, whether the textual identity, divisions, hierarchy, and

so that choosing tools becomes situated within larger spheres of activity. situation and ideas as well as their own. The selection of tools is made complex by considerations of what tools the client has and what tools the target audience has students to consider purposes and audiences first, taking into account the client's various goals for student literacy that we pursue in our classes. Such projects force too, in suggesting that client-based or service-learning projects can contextualize the vocabulary, and about applying what we see to what we write. Brumberger is helpful. landscapes. Her students learn that design is about perception, about developing a rhetoric can be learned by walking around, looking at the world and its buildings and that complex design software imposes. Meloncon, similarly, suggests that visual that design is a "dexterous activity" can really provide some relief from the pressures can help us sort out these issues. Kostelnick's low-tech route, with his suggestion students to learn on their own. Several authors in this volume, in addition to Sheppard. issue of how much direct teaching I would need to do vs. how much I could challenge complex software applications, such as Adobe Creative Suite. If I were teaching document design instead of technical writing, I would have to confront the tricky entirely address the issue that Sheppard (this volume) addresses in her perceptive discussion of how we strike a balance between teaching rhetorical design vs. teaching I know that my approach to software skills in my technical writing class does not

attending to how messages are constructed, delivered, or received other courses will focus more on the receptive or critical skills of visual literacy, design with a strong emphasis on production tools such as Adobe Creative Suite, their tool skills across multiple classes. While some courses will focus on document depending on the focus, with students deepening their rhetorical skills and sharpening position classrooms. Goals and activities will necessarily shift from class to class, contexts for teaching visual communication within both technical writing and comcation is not a one-size-fits-all proposition. The chapters suggest a broad range of This collection importantly reminds us that teaching visual rhetoric and communi-

outcomes. At the University of Delaware, as we evaluated senior portfolios for students may be most productive to articulate programmatic outcomes in addition to course We are not likely to reach all our goals for student learning in a single class, and it

in professional writing, we noted that some students presented a restricted range of genres, some were not strong document designers, and some did not appear to have software skills. We have been mapping the outcomes we wish to see (writing skills, tool skills, collaborative skills, applied rhetorical knowledge, document design) to our various courses, with the idea that we can shape instruction if we are articulate about what students ought to learn and what artifacts students ought to deliver in different courses. This collection can help faculty in various programs map the range of skills, understandings, and abilities that their students should evidence when they complete an assignment, finish a course, or graduate from a program.

The collection demonstrates that we are moving toward models of writing instruction that increasingly take into account a visual rhetoric, a rhetoric well-founded upon substantial scholarship and an increasingly sophisticated and intentional pedagogy. In many ways, the chapters in this volume are the companion pieces to "Seeing the Text," the pieces that did not exist in 1980. The message of this volume is clear: We can and should continue to work with a widening range of multiply-mediated texts, encouraging students to use their design skills to shape new texts, texts that display their meanings and do their work through an inventive and visually informed rhetoric. It is an exciting time to teach writing.

REFERENCES

Bernhardt, S. A. (1986). Seeing the text. College Composition and Communication, 37(1), 66–78. Bernhardt, S. A. (1993). The shape of text to come: The texture of print on screen. College Composition and Communication, 44(2), 151–175.

Bernhardt, S. A., & Kramer, R. (1996). Teaching text design. *Technical Communication Quarterly*, 5(1), 35-60.

Cooper, M. M., & Selfe, C. L. (1990). Computer conferences and learning: Authority, resistance, and internally persuasive discourse. *College English*, 52(8), 847–869. Retrieved July 30, 2010, from http://www.jstor.org/stable/377388

Goody, J. (1977). The domestication of the savage mind. Cambridge, MA: Cambridge University Press.

Halliday, M. A. K. (1973). Explorations in the functions of language. London, England: Edward Arnold.

Kress, G., & van Leeuwen, T. (1996). Reading images: The grammar of visual design. London, England: Routledge.

Malinowski, B. (2004). Magic, science and religion and other essays 1948

Redfield, Ed.).

Whitefish, MT: Kessinger.

McLuhan, M. (1964). Understanding media: The extensions of man. New York, NY: McGraw-

MicLulan, M. (1964). Understanding media: The extensions of man. New York, NY: McGraw-Hill.

Ong, W. (2002). Orality and literacy: The technologizing of the word (2nd ed.). New York: NY: Routledge.

Appendix

RESOURCES FOR TEACHING VISUAL COMMUNICATION

The resources annotated here comprise a far from comprehensive list, and we apologize in advance for any omissions and oversights. What the list does include are some of the foundational works in visual communication as well as additional sources that provide helpful material about design principles and suggestions for classroom activities. In addition, we include some of the works cited—and used—frequently by the authors in this volume. We have organized the list by category, although many of the resources cross the boundaries established by the categories.

Teaching Visual Communication

Bernhardt, S. (1986). Seeing the text. College Composition and Communication, 37(1), 66-78.

A landmark essay that argues that emphasizes the importance of considering texts as visual, rather than solely verbal. The essay argues that pedagogy which ignores the visual will (has) become "increasingly irrelevant." The essay introduces Gestalt principles of design that offers writers rhetorical control over the page.

Brumberger, E. (2007). Visual communication in the workplace: A survey of practice. *Technical Communication Quarterly*, 16(4), 369-395.

A research article that presents the results of a survey of professional writers about the role of visual communication in their work. Practitioners report that their visual communication responsibilities are numerous, complex, and varied, but they typically do a significant amount of design-related work, and they value visual communication abilities.

Brumberger, E. (2005). Visual rhetoric in the curriculum: Pedagogy for a multimodal workplace. Business Communication Quarterly, 68(3), 318-333.

This article discusses the need to increase the attention given to visual communication in business writing courses and programs. Concrete suggestions include better integrating visual communication into existing courses, contextualizing design projects to focus on problem solving, and adding visual communication tasks to other common assignments.