Introduction

How does writing help us know what we see? By considering the theoretical bases of that question, Fellows in this seminar developed curriculum units that explore its practical implications. Because our analysis treated not only the physical act of seeing but also vision as a metaphor for understanding — as in "I see what you mean" — we examined both what looking closely at an object can teach the viewer and how the act of writing fosters comprehension. The ordering of the three terms in the title of the seminar was meant to encourage new ways of conceiving the relation between perception and articulation. Art critic and cultural theorist John Berger famously began his *Ways of Seeing* (1972) with the statement "Seeing comes before words." Rather than proposing that students see first and write later, however, the curriculum units presented in this volume often acknowledge that writing comes before seeing.

Arguments that make claims for the importance of visual stimuli and the complexity of visual processes would be difficult to refute. We live in a culture increasingly dominated by information and misinformation presented in pictorial forms: the Internet is only the most obvious example of a medium whose flood of constantly changing images now threatens to make genuine comprehension seem impossible. According to psychologists, approximately 80% of what we know about the world comes to us through our eyes. The same experts explain that vision is not a matter of processing full and continuous physical data registered on our retinas; rather, our minds create the illusion that sight provides a detailed and comprehensive report on the external world. Moreover, because seeing also depends on words, sight is an even more complicated mechanism than scientists understand it to be. As Annie Dillard explains in *Pilgrim at Tinker Creek* (1974), "Seeing is of course very much a matter of verbalization. Unless I call my attention to what passes before my eyes, I simply won't see it. It is, as Ruskin says, 'not merely unnoticed, but in the full, clear sense of the word, unseen.'" If one does not test what one knows about what one sees by turning it into words, then it is, according to John Ruskin, the nineteenth-century sage whom Dillard quotes, simply "unseen."

Fellows in this writing seminar explored in particular the relationships between what Dillard calls "seeing" and "verbalization" as they manifest themselves in the kinds of academic writing that involve observation, analysis, and argumentation. Although we read the work of authorities in the disciplines of cognitive science, media studies, and aesthetics, we quickly turned theory into practice, developing several questions that came to guide our work together: How does focusing on vision help our students become better writers? What does looking at an image or an object do for the teacher of writing that cannot be accomplished by examining words alone? The units collected here offer a number of different answers to those questions, resulting in part from the fact that this seminar, in its form and content, resembled both a course about writing and a course about the teaching of writing: constituting themselves as members of a writing workshop, the Fellows put into practice the assumptions and ideas about writing that we discussed. Analyzing their written exercises
provided a kind of meta-commentary on the presuppositions and goals of specific assignments; from such discussions there often emerged new ways to craft prompts to be used with students. The success of the efforts of these Fellows to be both skilled writers and effective teachers is, I think, evident in many of these units: striking insights conveyed in memorable turns of phrase, elegant and apparently effortless organization of complicated arguments, and instances of a thoughtful concern for the interests of their readers — all these qualities frequently characterize these units.

During two particularly enlightening sessions, the participants in this seminar benefited from the generosity of two of Yale's most gifted experts in the area of visual literacy: Barbara Rockenbach, Director of Undergraduate and Library Research Education at Bass Library, and Linda Friedlaender, the Curator of Education at the Yale Center for British Art. Both of them demonstrated in different but complementary ways a lesson of great importance for anyone who teaches visual material: students need to be encouraged to talk freely and expansively about a visual object without being given any information about it that would influence what they might or might not say. Sharing with us a photograph from World War II, Barbara Rockenbach was careful not to identify its subject until we had had a chance to notice and to comment upon many of its intriguing and perplexing details as well as speculate on their possible implications. Similarly, during our visit to the Center for British Art, Linda Friedlaender invited us to sit in front of an impressive full-length portrait and think aloud as a group. Never explaining that we were looking at a commissioned portrait by Sir Joshua Reynolds, she gave us a chance to identify details that made us more and more curious about both the formal qualities and the cultural significance of the painting. Many of the individual projects pursued by the Fellows in this seminar adapt the practices demonstrated by Barbara and Linda, thereby expressing their gratitude to them for sharing with us their knowledge of both visual texts and visual pedagogy.

The curriculum units collected here fall into three distinct, but often overlapping groups. Many specific topics are broached again and again: the role of visualization in reading and writing, the relation between word and image, and the power of visual materials to motivate students to talk and to write in analytically productive ways. Each unit, however, demonstrates the distinctive gifts and interests of its author, and my account here can point out only the most obvious of the diverse strengths that each project possesses.

In the first set of units, each written by a middle-school teacher, Ekaterina Barkhatova and Caitlin Dillon and Deirdre Prisco use the extensive research that they did to inform lessons that translate theory into practice. Offering insightful accounts of vision and language acquisition, Ekaterina develops an inventive plan to help bilingual students strengthen their ability to write academic prose. By using photographs that depict migration and immigration, she offers a unit that is a model of cross-disciplinary study, including the areas of language arts and social studies and, through the phenomenon of marching penguins, the sciences. Caitlin turns to cognitive science to examine how experiences contribute to different kinds of mental models and to theorize about the relation between visualization and verbalization, comprehension and retention. One of her most telling points, drawn from research done by those who developed the teaching method called Visual Thinking Strategies, proves that the skills that students develop when they work with visual materials transfer to and therefore enhance their abilities as readers. Caitlin creates a series of lessons that move logically and productively from visual to verbal and from verbal to visual, using photographs and paintings in a clever and engaging fashion. Deirdre also makes use of the findings of cognitive science as the basis of her account of how to incorporate visual journaling in one’s lessons: by exploring the relation between visual experience and the processes of memory and attention and visualization, she argues persuasively that allowing students to create images is a way of helping them use words. Her unit contains an admirably wide and diverse array of exercises that teachers can adapt for their classes in a range of subjects and at a number of grade levels.
The units in the next group turn to specific subjects taught at the high-school level. Proposing a unit to be used in his psychology course for eleventh- and twelfth-graders, Justin Boucher offers a particularly convincing way of understanding what happens when a student writes by demonstrating the similarities between the processes of sensation, perception, and cognition and the processes of seeing, knowing, and writing. Explaining that writing is a “form of cognition,” Justin presents a carefully structured series of increasingly demanding exercises; and he bases them on the assumption that students should think about writing with as much self-conscious attentiveness as they are asked to offer the material in their psychology textbooks. In the next two units, Leszek Ward and Melissa Dailey prove that emphasizing the visual qualities of a Shakespeare play, both as enacted on the stage and as communicated on the page, encourages students to think about problems that go well beyond the realms of literature and history. Constructing lessons dealing with The Tempest for the eleventh- and twelfth-grade students in his literature classes, Leszek encompasses an admirably wide range of materials, from Renaissance theatre history to portrait painting and contemporary film adaptations. Arguing that literature, in this case in the person of Prospero, has the power to change one's perspectives and therefore one's knowledge and understanding, his unit engages such diverse issues as forgiveness, criminality, and cross-cultural misunderstandings. Melissa, in her plans to teach Hamlet and Macbeth, makes a case for the similarities of the challenges faced by the two tragic heroes of those plays and by her students: in her account, both “the illusory world of the spiritual” that Shakespeare conjures up and “the illusory world of the Internet” pose dangers that students need to be encouraged to consider. The final unit in this group responds, as Melissa's does, to an article by N. Katherine Hayles, "Hyper and Deep Attention: The Generational Divide in Cognitive Modes." Hayles proposes that today's students are "hyper"-attentive learners: because all the various visual technologies available to them have trained them to respond simultaneously and quickly to different sources of stimuli, they have trouble mustering the "deep attention" required for extended, solitary, and quiet acts of reading. By asking how visual images of the kinds of behavior that express love can help her students move from the hyper to the deep, Marialuisa Sapienza demonstrates her understanding not only of two different ways in which students attend to the world but also her awareness of the great variety of skills and experiences that students bring with them to the classroom. Her unit is a model of how to create intellectually coherent but diversified lessons that account for such differences.

The last three units were written by Mary Lou Narowski and Alice Smee and Deborah Boughton, and the first two also respond to Hayles's theories about hyper and deep attention. Mary Lou proposes to ask students in her seventh-grade language-arts classes a deceptively simple question, What is art? That question becomes the basis for analysis of 9/11 photographs and well-known masterpieces of Western painting; the unit concludes with an exercise in argumentation that asks students to choose and to defend the objects that they want to include in a classroom art gallery. Like Mary Lou, Alice suggests that working with visual materials in middle-school grades can be a way of lessening the stress that students often feel when they are required to write. By starting with the kinds of visual media that are so much a part of her students' lives, Alice hopes to teach them the importance of visualization as a way of strengthening both their engagement in what they write and their abilities to elaborate on and prove their written assertions. Deborah's unit provides a fitting conclusion to this volume because she explicitly coordinates the goals and practices promoted by Visual Thinking Strategies with the goals and practices of literary analysis. She also makes good use of the resources that Yale has to offer teachers in the New Haven school district and beyond: her lessons on the ambiguities in visual and verbal texts include images from a past exhibition at the Yale Center for British Art, images available to all teachers on the Center's Web site, as well as paintings in its permanent collection.

Finally, a note of gratitude to the members of this seminar: talking with them over a series of weeks and months has allowed me to rethink how I teach writing to college freshmen in ways that I never could have predicted before our sessions began. Impressive examples of dedication, insight, and resourcefulness, these
Fellows have encouraged me to revise — to see again from wholly new perspectives — how to use visual images and visual phenomena as catalysts for writing instruction. My students this fall will no doubt be the beneficiaries of the Fellows with whom I have had the pleasure to work — as will be, I predict, anyone who reads the units collected here.

Janice Carlisle