1

Creative Translations: Reimagining the Process Movement (1971–84)

BEFORE I BEGAN EXPERIMENTING with multimodal composing, I found that considerations of "process" remained largely unconscious in my work as a writer and teacher. I might start a new project by freewriting or by talking to a friend, but I rarely paused to reflect about my own processes of invention. I might ask students to write reflections about the revisions they chose to make in their work, but I never made the study of composing processes a truly central part of my classes. Certainly, I was aware that process scholarship played a crucial role in helping "establish composition as a research field" (Harris, *A Teaching* 55), and I also recognized that the process movement had laid the foundation for many of the pedagogical practices (such as multiple drafts) that I took for granted. But, like many others, I also tended to think of "process" as a theoretical movement whose time had passed, and I focused most of my attention on engaging cultural studies methodologies that promised to move the field beyond the process paradigm.

When I started to compose multimodal texts, however, I suddenly found myself thinking about issues of *process* at almost every turn. When I composed my first animated Flash movie (about eight years ago), I couldn't help but intensively reflect about the strategies I was employing to invent and revise this radically multimodal text. Faced with the new composing challenge of combining spoken words, alphabetic text, images, and music, I found myself persistently engaging numerous process-oriented questions: Should I start by searching for images, by drawing a sketch, or by recording myself talking aloud? What did it mean to revise a text in which multiple layers

(images, words, sounds) occurred simultaneously on a timeline? How much of my knowledge of alphabetic writing strategies could I transfer to these new modalities of composing? Was freewriting really a useful way to invent ideas for a Flash movie?[1]

In addition to wondering about how my traditional alphabetic invention strategies applied to multimodal composing, I also began to explore new invention strategies that I had never considered before. For example, I realized that digitally recording and editing my extemporaneous speaking was a useful strategy for developing the "voiceover narration" for my Flash movie; after that, I also began to use digitally recorded "free talking" as a way to invent ideas for alphabetic texts. In other words, I started to recognize that experimenting with multimodal composing could ultimately be a way for me to resee or reimagine the alphabetic writing process. In my teaching too, I began to make discussion of process a more conscious part of my pedagogy. I spent much time asking students to reflect critically about the similarities and differences in their processes of composing alphabetic and multimodal texts. We experimented with freewriting as a way to invent videos, and we explored visual storyboarding as a way to invent alphabetic essays. Ultimately, the collaborative investigation of composing processes started to become a central theme of my multimodal writing courses.

Seeking to contextualize these classroom explorations, I started to look back at the work of many of the foundational theorists of the process movement in the 1970s and 1980s (Berthoff; Emig; Flower and Hayes; Perl; Sommers). At first, I didn't expect that past process scholarship would be able to shed much light on the contemporary multimodal questions I had been asking; certainly, issues of multimodality were largely absent from all the histories of the process movement that I had read (Berlin; Crowley; Ede; Faigley; Foster; Harris; Henze, Selzer, and Sharer; Miller). Yet, when I began to reread the work of 1970s and 1980s process theorists, I came to discover a rich tradition of compositionists studying and teaching writing in profoundly multimodal ways.

Challenging the common notion that the process movement was focused on words alone, I seek in this chapter to demonstrate

ways that process researchers conceptualized alphabetic writing as a deeply multimodal thinking process that shares affinities with other forms of composing (visual, musical, spatial, gestural). In particular, I argue that process researchers engaged two interdisciplinary questions that remain highly relevant for multimodal compositionists today:

- Are there similarities in the creative composing processes of writers, visual artists, designers, and performing artists (Berthoff; Emig; Flower and Hayes)?
- What role do nonverbal modes of thinking play in the invention and revision of alphabetic texts (Berthoff; Flower and Hayes; Perl; Sommers)?

I recognize that I may seem a bit outdated in attempting to revive the 1970s and 1980s research of a group of scholars variously associated with the "process movement" in composition studies. Yet, as Lisa Ede has recently contended, the theorists of the process movement continue to influence contemporary pedagogical practice—even if many of their claims have been insightfully critiqued by "post-process" theorists.[2] After all, many of the core practices of writing teachers (multiple drafts, peer response, invention activities, contextual grammar instruction, formative feedback) continue to reveal the enduring influence of the process theories developed in the 1970s and early 1980s. Thus, as we begin to redefine the landscape of composition to incorporate digital multimodal production, it makes sense to return to these key theories to see how they might inform this shift.

To this end, I present in this chapter a series of three *tracks,* engaging oft-forgotten multimodal aspects of our field's process heritage. In track 1, "Creativity," I look closely at how Janet Emig positioned composition as an interdisciplinary field, calling for process scholars to gain new insights about writing by studying and practicing other arts. I then turn to Flower and Hayes's interdisciplinary investigation of writing and visual art as related creative problem-solving processes, considering how Flower and Hayes's research findings can inform contemporary digital multimodal composition pedagogy. I conclude by briefly elucidating how compositionists might productively reengage contemporary scholarship on creative cognition.

In track 2, "Translation," I look closely at process researchers' investigation of the role of nonverbal mental imagery in the invention and revision of alphabetic writing. In particular, I focus attention on Flower and Hayes's provocative definition of writing as an act of translation from the multimodal mind to the alphabetic page. I argue that Flower and Hayes's translation theory can provoke us to consider including multimodal invention activities in writing classes, and it can also propel us to question the limitations of alphabetic writing as a form of communication. In addition to analyzing the work of Flower and Hayes, I also briefly elucidate ways that Sondra Perl's exploration of felt sense and Nancy Sommers's discussion of revision can contribute to the study and teaching of composing as a multimodal thinking process.

In track 3, "Imagination," I turn to analyzing how Ann Berthoff theorized composing as a multimodal process of making meaning, urging composition teachers to help students draw connections between alphabetic writing and all the other forms of composing that they use to make sense of the world. Challenging the common notion that Berthoff's theory of the imagination was focused solely on the epistemic power of words, I argue that Berthoff ultimately sought to demonstrate ways that thought and reality are socially constructed through multiple symbol systems (alphabetic, musical, visual, gestural).

TRACK 1: CREATIVITY

I begin this recovery project with Janet Emig's 1971 *Composing Processes of Twelfth Graders*—a text that has been widely recognized as foundational for the development of process approaches for researching and teaching composition. Although scholars have articulated Emig's great contribution to establishing compositionists' disciplinary expertise in the teaching of alphabetic writing (Berlin; Ede), historians have largely passed over the ways Emig's work both draws upon and contributes to *interdisciplinary* research on creative composing across modalities. In her 1971 study, Janet Emig defines composing very broadly as "the selection and ordering of elements" (66). When people are "composing in writing" (1), they are selecting and ordering words; when people are composing a painting or composing a symphony, they are selecting and ordering auditory or imagistic elements. Because Emig views composing as a concept that travels across modalities, she does not limit her literature review to research that focuses on alphabetic writing specifically. Rather, Emig seeks to position her study in relation to "research dealing with the whole or some part of what has been called, globally, the 'creative process'" (7). In discussing past global research on the creative process in visual art, writing, music, and science, Emig notes that "many students of creativity as well as creators across modes" (17) have proffered a view of the creative process as a sequence of stages. On the one hand, Emig argues that stage models of creativity (Cowley; Wallas; Wilson) are useful because they demonstrate that "there are elements, moments, and stages within the composing process which can be distinguished and characterized in some detail" (33). On the other hand, she questions the tendency of stage models to portray the creative process as a linear sequence—arguing instead that the various elements or stages of the composing process occur recursively. In this way, Emig proposes a revision of stage models of creativity (from linear to recursive) that could potentially apply well beyond the walls of the writing classroom or even of the English department.

Ultimately, Emig suggests that English teachers should not limit themselves to studying and teaching the composing of alphabetic texts alone—that English teachers have much to gain by studying and teaching other forms of composing. Indeed, Emig notes regretfully that very few teacher-training programs in the United States offer

> experiences in allied arts through creative arts workshops. When, if ever, have our secondary school teachers painted, sung, or sculpted under any academic auspices? Partially because they have no direct experience of composing, teachers of English err in important ways. They underconceptualize the process of composing. Planning degenerates into outlining; reformulating becomes the correction of minor infelicities. (98)

In addition to proffering the now common assertion that teachers of writing should themselves be writers (98), Emig also suggests more

radically that teachers of writing should gain experience composing with a wide range of modalities. In particular, Emig argues that experience in composing across modalities (alphabetic, aural, visual, or spatial) can help teachers understand invention (planning) and revision (reformulating) as complex recursive processes, moving beyond teaching formulaic, product-centered models such as the "five paragraph theme" (97).

In this way, Emig outlines a truly radical vision of what it means to study and teach *composition*. Challenging the notion that compositionists should focus on alphabetic writing exclusively, Emig suggests that writing teachers should join with "allied arts" fields in the interdisciplinary study and practice of creative composing—in exploring the recursive, generative process of "selecting and ordering elements" (66) that is common across modalities. Compositionists seeking to gain insight into revision need not necessarily restrict their investigation to the processes of alphabetic writers; rather, compositionists might study how painters and sculptors revise ideas during the process of composing, considering how their visual revising strategies might be adapted to alphabetic writing.

Emig's call for compositionists to engage in the interdisciplinary study of creative composing gains even more relevance in the contemporary digital moment. Although Emig could assume that visual, aural, and alphabetic composing were separate though related activities, digital technologies increasingly enable students to compose texts that blend images, sounds, and words. In an environment where distinctions between alphabetic writing, art, design, and music are breaking down (Manovich; New London Group), it is important that we help students gain a global understanding of creative processes that is not tied to any specific modality—an understanding that they can use to help guide their composing with diverse alphabetic, audio, and visual materials.

Although Emig called for interdisciplinary collaboration in the study and teaching of composing across modalities, her *Composing Processes of Twelfth Graders* remains, after all, a single-authored text. In contrast, Linda Flower (a compositionist) and John Hayes (a cognitive psychologist) actually enacted interdisciplinary collaboration

in their research on writing as a creative problem-solving process. When Flower and Hayes discuss problem solving, they are generally referring to a goal-directed activity that occurs whenever people find themselves "at some point 'A' and wish to be at another point 'B'; for example, when they have a new insight into Hamlet, but have yet to write the paper that will explain it" ("Cognition of Discovery" 22). Rejecting the notion that all problem solving is simplistic or rote, Flower and Hayes argue in a 1980 article that the writer's problem "is never merely a given: it is an elaborate construction which the writer creates in the act of composing. . . . Even though a teacher gives 20 students the same assignment, *the writers themselves create the problem they solve*" ("Cognition of Discovery" 22–23). During the recursive creative process of defining or finding the problem, the writer may spend extensive time analyzing the rhetorical situation (audience, exigency) as well as formulating goals (for affecting readers, for creating a persona, for conveying meanings).

Arguing that research on writers' problem finding can contribute to the development of a generalizable theory of creativity, Flower and Hayes assert that "if we can describe how a person represents his own problem in the act of writing, we will be describing a part of what makes a writer 'creative'" ("Cognition of Discovery" 30). In particular, Flower and Hayes seek to demonstrate that problem finding is a creative cognitive activity common to both alphabetic writing and fine art:

> A recent long-range study of development of creative skill in fine art [Getzels and Csikszentmihalyi] showed some striking parallels between successful artists and our expert writers . . . In this experiment, the artists were given a studio equipped with materials and a collection of objects they might draw. The successful artists, like our expert writers, explored more of the materials before them and explored them in more depth, fingering, moving, touching, rearranging, and playing with alternatives, versus moving quickly to a rather conventional arrangement and sketch. Once drawing was begun, the artists' willingness to explore and reformulate the problem continued,

> often until the drawing was nearly completed. Similarly our successful writers continued to develop and alter their representation of the problem throughout the writing process. This important study of creativity in fine art suggested that problem-finding is a talent, a cognitive skill which can lead to creativity. The parallels between these two studies suggest that problem finding in both literature and art is related not only to success, but in some less well-defined way to 'creativity' itself. ("Cognition of Discovery" 30–31)

In this way, Flower and Hayes demonstrate that both alphabetic and visual creativity entail a willingness to intensively explore materials—to "rearrange" and "play with alternatives" (30–31). An artist drawing a still life (like the ones in the above experiment) will compose a more creative product if she takes the time to explore the many possible ways she might represent and rearrange a series of objects. Similarly, a writer composing a research-based essay would be well advised to consider a wide variety of sources on a topic, exploring ways he might creatively transform and combine those sources to develop a novel argument. As writers and artists engage in the composing process (as they transform and rearrange materials on paper, on screen, on canvas), they may often find themselves redefining their problems, generating new ideas and imagining new goals (Flower and Hayes, "Cognition of Discovery," 30–31).

By suggesting that problem finding is a generic process common to alphabetic writing and visual artistic production, Flower and Hayes implicitly challenge the common notion that alphabetic writing and the visual arts are entirely separate fields. Although English composition instructors and visual studio art instructors teach students to compose very different kinds of products, they share a concern with teaching students to engage in composing as a recursive process of discovery—a process in which composers continuously redefine their "problem" as they intensively explore, transform, and rearrange materials (words, images, objects). If students could be taught a common vocabulary for understanding the creative processes of composing words and composing images, they might better be able to transfer their skills in problem finding from one modality to another.

In seeking to develop common vocabularies for understanding visual and alphabetic composing, it could be useful for us to take up Emig, Flower, and Hayes's suggestion that we collaborate with scholars in "allied arts" fields in studying the creative process. Indeed, even though compositionists have largely avoided participating in the interdisciplinary study of creativity in the past twenty years, the interdisciplinary field of creative cognition has flourished (Gardner, *Art*; Martindale; Finke, Ward, and Smith) and has begun to be taken up by humanist scholars of literature, music, and the visual arts (Hogan; Turner).[3] For example, in a recent book, *Cognitive Science, Literature, and the Arts*, Patrick Colm Hogan draws on cognitive science research to explore similarities in the creative composing processes of famous artists, musicians, and literary writers. In particular, Hogan demonstrates ways that creative artists in a variety of modalities all tend to exhibit states of defocused attention—moments when they are able to move beyond proximate associations (the most obvious words, images, or sounds that come to mind) to explore remote associations (to connect words, images, or sounds that would normally seem disparate). Looking at the works of a variety of artists and writers, Hogan suggests that composers are better able to make remote associations if they draw upon and combine multiple creative traditions in composing their work (for example, taking inspiration for a play from the structure of a poem, blending African sculpture and contemporary Western art). Although scholars of creative cognition attempt to delineate elements of creative process that may be generalizable across art forms, they also have increasingly come to recognize that creativity necessitates domain-specific knowledge and that what counts as "creative" in a particular situation is at least in part socially constructed (Gardner, *Art*; Hogan).

Although I recognize the limitations of generalizable theories of creativity, I nevertheless suggest that it could be useful for compositionists to conduct comparative studies of students' creative processes when composing alphabetic and visual texts. While Emig

and Flower and Hayes all used think-aloud methodologies to study creative process, we might instead employ the more contemporary methodology of video screen capture (Geisler and Slattery) to analyze the rhetorical choices that students make in composing visual and alphabetic texts. In a screen capture study, the researcher uses specialized software to record everything that happens on a participant's screen while he or she is composing. After closely analyzing and coding the video screen capture data, the researcher then conducts "stimulated recall interviews" (Geisler and Slattery 198) in which they show participants clips of the captured video and ask them to discuss the choices they made and the activities in which they engaged. By comparing interview and video-capture data of students composing with diverse modalities, we might better be able to articulate the similarities and differences in the ways students approach alphabetic and video composing tasks. Although these kinds of studies certainly could not account for all the complex social and ideological factors that influence composing, they nevertheless could help us develop some useful (though limited) heuristics for discussing process that could potentially transfer across the diverse modalities that students use to compose.

TRACK 2: TRANSLATION

In addition to demonstrating that alphabetic writing shares similarities to other forms of composing, Flower and Hayes also articulate how the act of alphabetic writing entails *multimodal thinking*—how writers do not think in words alone. In particular, Flower and Hayes focus attention on the powerful role of mental imagery in writers' thinking processes.[4] Describing the process of planning in which writers generate ideas, create rhetorical goals, and develop organizational schemes, Flower and Hayes assert in a 1981 article that "the information generated in planning may be represented in a variety of symbol systems, such as imagery or kinetic sensations" ("A Cognitive Process" 373). If writing about a remembered place, the writer might perceive sensory (auditory, visual, olfactory) images of that place. Instead of setting a rhetorical goal in words, the writer might picture an audience member and imagine how he or she would react to the

writing. The writer might imagine the organization of the piece in terms of a visual shape rather than in terms of a verbal outline. Even when writers are planning verbally, they are not necessarily thinking in prose-like sentences; "a whole network of ideas might be represented by a single key word" ("A Cognitive Process" 373).

Seeking to emphasize the fact that writers do not think in words alone, Flower and Hayes define the drafting of alphabetic text as an act of translation.[5] In the Flower and Hayes model, translating refers to

> the process of putting ideas into visible language. We have chosen the term translate for this process over other terms such as "transcribe" or "write" in order to emphasize the peculiar qualities of this task. . . . Trying to capture the movement of a deer on ice in language is clearly a kind of translation. Even when the planning process represents one's thoughts in words, that representation is unlikely to be in the elaborate syntax of written English. So the writer's task is to translate a meaning. ("A Cognitive Process" 373)

Although Flower and Hayes recognize that translating from multimodal internal representations to alphabetic external representations is a challenging activity, they also tend to assume that it is a given of the writing process—an unavoidable constraint. Responding to an alphabetic writing prompt in a time-limited laboratory setting, Flower and Hayes's research subjects were given neither the time nor the means to create external representations of knowledge in any medium but alphabetic text (or simple visual symbols such as arrows and circles).

Yet, when we move from the research lab of 1980s to the contemporary composition class of today, writers need not necessarily be constrained to producing only alphabetic external representations of knowledge. Many contemporary composition teachers (though certainly not all) can offer students both the time and the means to create external representations of knowledge in a variety of modalities. Rather than seeing translation as a reductive process of moving from multimodal mind to alphabetic page, we can instead reimagine

translation as a dynamic process of moving between internal multimodal representations of knowledge (in the mind) and external multimodal representations (on the computer or the page).

At the very least, Flower and Hayes's theory suggests the value in having students complete multimodal activities as part of the process of planning alphabetic writing. If we restrict students to word-based planning activities (for generating ideas, for defining rhetorical purpose, for analyzing audience), we may be unduly limiting their ability to think deeply about their rhetorical tasks. For example, students might think about their audience in richly complex mental imagery, but have trouble defining their audience in words. If we give students the opportunity to create a visual representation of their audiences (using found images or original drawings), we may be able to gain a much richer sense of their rhetorical thinking than if we limited them to verbal audience analysis alone. Similarly, we might be able to help students to think beyond the five-paragraph essay if we let them imagine the organization of their writing in visual terms, creating a storyboard instead of a conventional outline. With Flower and Hayes's translation theory in mind, it is possible to imagine teaching writing as a multimodal thinking process not just an alphabetic product.

Although Flower and Hayes offer the most extended analysis of the role of multimodal thinking in the writing process, other process researchers (Perl; Sommers) also highlight the ways writers draw on nonverbal mental imagery in inventing and revising their work. For instance, Sondra Perl argues in her 1980 article "Understanding Composing" that writing researchers must pay attention to those aspects of the composing process that are "not so easy to document" because they "cannot immediately be identified with words" (364). Seeking to explain "what happens when writers pause and seem to listen to or otherwise react to what is inside of them" (365), Perl turns to the theory of *felt sense* outlined by the psychologist and philosopher Eugene Gendlin. Explaining the central role of multimodal felt sense in a writer's invention, Perl notes that "when writers are given a topic, the topic itself evokes a felt sense in them. This topic calls forth images, words, ideas, and vague fuzzy feelings.

. . . When writers pause, they are looking to felt experience, and waiting for an image, a word, or a phrase to emerge that captures the sense they embody" (365). In this way, Perl (like Flower and Hayes) suggests that writing is a kind of translation—a movement from the multimodal world of the mind (where images, words, and kinesthetic sensations mingle) to the alphabetic space of the page (where conventionally only words appear).

In contrast to Perl's emphasis on the role of multimodal thinking in invention, Nancy Sommers highlights the role of multimodal thinking in *revision*. In a classic 1980 study, "Revision Strategies of Student Writers and Experienced Adult Writers," Sommers notes that students tend to "understand the revision process as a rewording activity" (381). In focusing on deleting unnecessary words or choosing better words, students ultimately think of revision as an attempt to clean up the redundancy and imprecision of speech (381–83). In contrast, experienced writers move beyond an understanding of revision as rewording to a broader conception of revision as a process of reordering, adding to, and transforming ideas. In outlining this more global understanding of revision, experienced writers often talk in *visual-spatial* terms: "the experienced writers describe their primary objective when revising as finding the form or shape of their argument. Although the metaphors vary, the experienced writers often use structural expressions such as 'finding a framework,' 'a pattern,' or 'a design' for their argument" (Sommers 384). In this way, Sommers suggests that visual-spatial thinking (conceiving of writing as a shape or structure) can be a useful way of moving beyond rewording to considering more global changes of organization and argument. Although Sommers asserts that experienced writers' visual-spatial thinking is largely an internal mental process, it is possible to imagine course activities that might literalize the notion of conceptualizing writing as a shape or pattern. In order to get students past their habit of reading over their text looking for words to delete or change, we could ask students to translate their text into a spatial image—to create an external representation of their text that is not tied to words alone. By translating their texts into images, students might better be able to radically revise—radically *resee*—their alphabetic writing.

In addition to helping us consider ways that multimodal activities might enhance students' composing of alphabetic texts, process scholarship can also provocatively lead us to question the limitations of alphabetic writing as a modality of communication. In a lesser-known 1984 article, "Images, Plans, and Prose," Flower and Hayes assert that "as writers compose they create multiple representations of meaning. Some of these representations, such as an imagistic one, will be better at expressing certain kinds of meaning than prose would be, and some will be more difficult to translate into prose than others" (122). Questioning the notion that alphabetic text is always the best way to express ideas, Flower and Hayes demonstrate that "writers must often struggle to capture, in words, information that would better be expressed in other ways" ("Images" 132).

Providing an example of a rhetorical purpose that cannot be adequately met with words alone, Flower and Hayes offer a detailed discussion of field guides for bird identification:

> the text is clearly secondary to the pictures. And even then, the major guides—such as the Audubon, Golden, and Putnam Guides—are divided regarding which is better: a photograph that supplies a context or an artist's rendering that more clearly identifies details and color. . . . The limitations of prose become obvious, however, when these writers try to capture another critical feature of the bird—its song. You know you are in trouble with the whiskered owl when the text tells you that the "distinctive call, 4 to 9 high pitched *boos* slowing at the end, is the best means of identification." . . . Robbins et al. (1966), in fact, try to supplement words with the visual representation of a sonogram: an inch-long graph with squiggles, dots and smudged bars. Any port in a storm. ("Images" 132)

In sharing this tale of the incredible challenge of representing bird song in print, Flower and Hayes ultimately suggest that alphabetic text is not necessarily the best modality for representing all kinds of knowledge. Although in 1984 (when Flower and Hayes published their article) there was no clear alternative to print-based field guides, bird-watchers today can purchase an "iBird explorer" application for

their iPhone that provides ready access to images and sound samples of large quantities of birds ("iBird"). In this way, we can see that contemporary portable digital technologies increasingly offer composers more ways of expressing knowledge when alphabetic text falters.

Although it may not be very common for composition students to struggle to represent birdsongs in their writing, it is much more common for students to struggle to write analytically about pieces of music. Certainly, students can easily translate lyrics to alphabetic text, but it is much harder to translate pitch, rhythm, tone, and so forth. In order to help an audience follow their analysis of a musical piece, students might compose a digital audio file instead of an alphabetic paper—interspersing audio samples from the piece of music with their own spoken commentary. By providing students with the option to compose using media other than print, we may greatly proliferate the kinds of ideas they can express in their analytical work.

Ultimately, if some information might "better be expressed in other ways" than words ("Images" 132), it makes sense to reimagine composition as a course that teaches students to discover—to choose—the modalities that best help them convey what they want to communicate. Instead of requiring students to move directly from multimodal mind to alphabetic page, we could instead teach students to translate ideas about a topic in multiple ways: gathering or creating visual images, drafting words, recording speech, gathering or creating music and atmospheric sounds. Once students have created a variety of external representations of knowledge in a variety of modalities, we could then ask them to consider which modalities would best help them achieve their rhetorical goals: Could they easily translate their images and sounds into alphabetic text or would too much be lost? Could their images stand alone without words to explain them? Should they consider combining words, images, and sounds using multimedia software (PowerPoint, Movie Maker, iMovie)? Which modalities would be most persuasive to their particular audience? Which modalities would enable them to create the persona they are attempting to achieve? Rather than requiring that students pursue the act of translation with the ultimate goal of producing an

alphabetic text, we could instead teach students to engage in multimodal translation with the ultimate goal of being able to make an informed rhetorical choice about which modalities best enable them to persuasively present their thoughts to a specific audience.

TRACK 3: IMAGINATION

Although Ann Berthoff is most often remembered for being highly critical of the positivist presuppositions of cognitive psychologists (Berlin, *Rhetoric*), it is important to note that she shared Flower and Hayes's belief that the mental process of composing was a profoundly multimodal activity. Whereas Flower and Hayes arrived at this conclusion through empirical research and cognitive psychological theory, Berthoff drew much of her belief about the multimodality of the mind from such humanistic thinkers as Coleridge, Langer, and Cassirer.[6]

Seeking to offer a robust metaphor for the ways people make meaning through multiple symbol systems, Berthoff turns to Coleridge's theory of the imagination as "the living power and prime agent of all human perception" (Coleridge, qtd. in Berthoff, *The Making* 28). By reclaiming the imagination, Berthoff ultimately seeks to highlight the ways that all sensory perception is mediated—the ways that sensory perception is always already a process of making meaning:

> The imagination is the shaping power: perception works by forming—finding forms, creating forms, recognizing forms, interpreting forms. Let me read you what Rudolph Arnheim, in his superb book *Visual Thinking,* lists as the operations involved in perception: active exploration, selection, grasping of essentials, simplification, abstraction, analysis and synthesis, completion, correction, comparison, problem-solving, as well as combining, separating, putting in context." Doesn't that sound like an excellent course in writing? To think of perception as *visual thinking* helps make the case for observation in the composition classroom, not for the sake of manufacturing "specifics" and vivid detail about nothing much, but because perception is the mind in action. (*The Making* 64)

Challenging the notion that sight gives us direct access to reality, Berthoff points out that visual perception is itself a form of composing. As we look at the world and compose visual images in our minds, we are constantly making meaning by selecting, arranging, and classifying—participating in an ultimately social process in which we construe what we see in relation to what we have seen in the past and what we *expect* to see in a given context (*Forming* 32). In this way, Berthoff argues that visual mental imagery is not just "source material" for writing (as Flower and Hayes suggest); rather, Berthoff shows that the process of composing mental images—the process of visual thinking—is analogous to writing. If we can teach students to understand how they make meaning with visual imagery in their minds, we may be able also to help them develop a more critical consciousness of how they make meaning on the page.

Further drawing connections between alphabetic writing and other forms of composing, Berthoff asserts that composition students and teachers might best be able to understand writing as an imaginative process by studying the work of visual and performing artists who make (or form) meaning with images, sounds, movements, and tactile objects: "Artists at work have a lot to teach us about the composing process. I think there is probably more to be learned by teachers of writing from time spent backstage and in practice rooms and studios than from time spent at conferences or in the study of rhetorical theory. We need to see the imagination in action in order to understand it as the forming power" (*Reclaiming* 261). In this way, Berthoff argues that there are commonalties between the composing processes of writers, visual artists, and performers–that there is much to be learned about the teaching of writing through the study of related arts. Challenging the notion that English teachers should confine themselves to studying the imaginative process of composing with words, Berthoff radically suggests instead that English teachers turn their attention to the study of the diverse ways that people make meaning of the world using multiple symbol systems:

> From craftsmen we can learn something about the relationship of pattern and design to forming; from artists we can

> learn even more fundamental truths about forming–that you don't begin at the beginning, that intention and structure are dialectically related, that the search for limits is itself heuristic, that form emerges from chaos, that you say in order to discover what you mean, that you invent in order to understand and so on. (*The Making* 103–4).

Just as writers discover their meaning in the process of writing, so too do sculptors discover their ideas in the process of molding clay. Just as painters have learned to value the importance of generating chaos, so too must writers come to recognize that it is often unnecessarily constraining to begin with a rigid outline before composing has started. Just as musicians recognize the inventive possibilities of imposing a structure or limit on their arrangement of notes, so too may writers find that the search for limits, the search for structure, can themselves be methods of invention.

In seeking to teach students to understand writing as a "nonlinear, dialectical process" of making meaning (*The Making* 3), Berthoff ultimately suggests that "anything we can do to make composing not entirely different from anything else our students have ever done will be helpful" (*The Making* 10). In Berthoff's view, teachers should build upon the knowledge of composing that students already bring with them to the classroom. If a student, for example, has already come to appreciate the fact that she could generate ideas through the process of sculpting, then that student might be encouraged to transfer her understanding of sculpting as a process of discovery to considering writing as a process of discovery. By focusing the teaching of composition on harnessing the "active mind" of the student rather on evaluating the formal correctness of alphabetic products, Berthoff ultimately seeks to develop a composition pedagogy that could enable students to draw connections among—and develop a vocabulary for—all the varied ways they make meaning in their lives.

Berthoff's call for a composition pedagogy that helps students draw connections between writing and other arts gains renewed relevance in the contemporary digital moment. As composing technologies proliferate, many students (though certainly not all) are arriving in our classrooms with experience crafting a wide variety of

texts beyond the printed, alphabetic essay: still images, videos, electronic music, blog entries to name but a few (C. Selfe and Hawisher; Yancey). Rather than implicitly suggesting to students that all of their out-of-school composing in multiple modalities is irrelevant to the work of the writing class, we might instead follow Berthoff in considering ways to help students draw connections among the many diverse kinds of composing experiences they have had in the past and will have in the future.

Revealing her persistent interest in helping students draw connections between visual and alphabetic composing, Berthoff includes several visual production activities in her textbook *Forming, Thinking, Writing: The Composing Imagination*. For example, Berthoff encourages students both to write and to visually sketch observations of a common object over a week's time (14). She then asks students to "observe their observations"—to explore how both their written descriptions and their visual sketches entail an active process of making meaning. Whether they are writing words or drawing visual images, Berthoff ultimately wants students to pause and reflect about how observation is an active, constructive process. Further engaging students in exploring the ways that visual images construct reality, Berthoff offers an assignment in which students design two versions of a poster for a political speech on campus: one that subtly supports the message of the speech and one that subtly critiques it (*Forming* 133). In this way, Berthoff implicitly argues that the composition class is about more than the writing of alphabetic text. For Berthoff, the composition class is ultimately a place where students employ multiple symbol systems (alphabetic, visual, auditory) in order to observe their observations and interpret their interpretations.

Although I believe that Berthoff's work offers a useful theoretical framework for integrating multimodal composing into writing classes, I must concede that her textbook, *Forming, Thinking, Writing*, includes relatively few visual production activities, keeping the focus largely on the composing of alphabetic text. Yet, when we look at the writings that Berthoff urges composition teachers to read, we can see glimpses of a more radical vision of composing across the curriculum—a vision that would engage students in

employing multiple symbol systems to form concepts. For example, in her collection *The Making of Meaning,* Berthoff includes an excerpted article from the magazine of the Teachers' and Writers' Collaborative (TWC)—a group that seeks to integrate writing and visual arts instruction in New York City schools. Berthoff praises the TWC for their innovative work of placing

> poets and painters in the classroom with the aim of encouraging students in drawing and carving, building and constructing—making meaning all the way. Transformation is the generative idea: dreams become stories; stories become plays; drawings become puppets; observations become notes, which become biographies, reports, meditations. This kind of change will always make meaning because the active mind is engaged in asking what's happening? What am I doing? What do you think? How would I know? (*The Making* 197)

In this way, Berthoff radically asserts that transforming the representation of a concept from one medium or modality to another—from drawing to report, from puppet to play—can ultimately be a way to engage students in actively reflecting on the processes through which they make meaning of the world. In Berthoff's view, students may gain a richer understanding of a concept if they attempt to form that concept using multiple symbol systems; indeed, attempting to form a concept with multiple symbol systems may ultimately be a way to generate the chaos that leads to creative invention.

In addition to recommending the work of the TWC as a model in general, Berthoff especially suggests that teachers pay attention to the implications of Bob Sievert's "Basic Bug" project that was sponsored by the TWC. In this project, third- and fourth-grade students individually composed images and words about their personal experiences of insects, then collaboratively worked to develop diagrams and models of a "basic bug" that included many features common to insects, and then finally worked to represent their new knowledge of insects by collaboratively making murals and 8mm films. In explaining why she included Sievert's work in a collection for teachers of writing at all levels, Berthoff argues that Sievert

offers a very useful understanding of the social process of concept formation, noting that "if I had to choose between chapter 5 of Vygotsky's *Thought and Language* and Bob Sievert's 'Bugs: One Insect Leads to Another' as a text to explain concept formation, I would take Sievert" (*The Making* 198). By pointing to Sievert's multimodal bug project as essential reading for any teacher at any level who seeks to help students form concepts, Berthoff implicitly argues for a reconsideration of the exclusive focus on alphabetic text in the academy—suggesting that students might develop a richer understanding of course concepts if they were able to compose about them using multiple modalities.

Of course, it can be argued that Sievert's multimodal bug project is irrelevant to college teaching because Sievert focuses on the elementary classroom. Yet, Berthoff repeatedly urges college teachers to resist their tendency to dismiss the insights of elementary instructors. For example, in the introduction to *The Making of Meaning,* Berthoff writes that she subscribes "wholeheartedly to Sylvia Ashton-Warner's notion that the end of 'the education story' can't be told unless we know the beginning. . . . Just as metaphor provides a focus for the study of meaning, so, I think considering how children learn is the best way to learn how to teach writing [in college] as a process of forming" (*The Making* vi). In the same volume, Berthoff underscores this point by perhaps hyperbolically suggesting that all candidates for the PhD in rhetoric "be required to teach third grade for a year" (23).

In other words, although professors might not be able to import Sievert's practices directly to the college classroom, they would be well advised to consider his insight that the forming of concepts is a richly multimodal process and that the separation of writing from visual art is a hindrance to students' learning. If we take Sievert's theories of learning seriously (as Berthoff asks us to do), we might begin to reimagine writing-across-the-curriculum programs as composing-across-the-curriculum programs—exploring, for example, ways that students might better learn scientific concepts if they both wrote about them and made videos about them.[7] Ultimately, if we looked closely at the elementary classroom (a space where numer-

ous composing modalities are often taught in tandem), we might begin to question the disciplinary organization of the university that tends to separate the teaching of alphabetic writing from the teaching of other arts.

TRACK 4: REPRISE

In the past three tracks, I have sought to demonstrate that compositionists have a substantial history of studying and teaching multimodal composing—a history that predates the rise of the personal computer or the arrival of the graphical web. In telling this historical narrative, I ultimately hope to contribute to the project of constructing a "usable past" (Harris) that can productively inform the contemporary multimodal turn in composition studies. To this end, I offer here three refrains—three macrotheoretical principles—that can potentially help us reimagine what it means to study and teach composing in the contemporary digital moment.

Refrain 1: Alphabetic Writing Is a Profoundly Multimodal Process

Even when we are composing a solely alphabetic product, we often are thinking with multiple symbol systems (visual, auditory, gestural). As a result, multimodal composing activities can be a powerful way to help students invent ideas for and consider revisions of their alphabetic texts. If we limit students to only alphabetic means of invention and revision, we may unnecessarily constrain their ability to think intensively and complexly about their work. As a result, I suggest that composition teachers consider including one informal, multimodal composing activity as part of every major unit or sequence in their course.

As one multimodal way to help students begin to generate ideas for writing, teachers can engage students in imagistic "freecomposing." In this activity, students are asked to spend fifteen minutes or so searching online for images that associatively resonate with their current understanding of their topic (drawing on resources such as Flickr.com and Google image search). Just as in alphabetic freewriting, the goal is to quickly generate a wide variety of material

without pausing to critically judge or evaluate. Once students have gathered a good number of images, they can then review their collection and select the three images that they find most compelling or intriguing. Ideally, students would then post their three selected images to a course blog (or discussion board) along with a written reflection discussing why they selected the images they did.

Because this process of associative imagistic invention may be new for students, teachers may wish to offer students some generative questions to guide their search process:

> What keywords come to mind when you think about this writing assignment?
> What images can you find when you use these keywords as search terms?
> Which of these images most resonate with your understanding of this topic? Why?
> Which images surprise you? Why?
> Who do you imagine as your audience for this project?
> Can you find images that represent that audience?

Furthermore, if students are having trouble finding images that are relevant, teachers could also invite them to draw a pen-and-paper sketch that represents the images that come to mind about their topic. For some students (especially those with a personal interest in drawing), the act of paper-based sketching may be a particularly conducive way to translate their imagistic thinking to the page (Dunn 65–82).

In addition to engaging in imagistic freecomposing, students also might be asked to create multimodal "cluster maps" using free online software such as Prezi.com. Whereas traditional cluster maps are limited to words and simple shapes such as lines and circles, Prezi can enable students to make a cluster map that combines words with embedded images and videos. In the process of making their cluster maps, students might search Google, YouTube, and library databases looking for quotations, images, and videos that relate to their chosen topic. They can then import all of this material into Prezi and

experiment with multiple ways of arranging it. After students have created a Prezi map of their paper, they can then present their multimodal maps to each other, reflecting about how their understanding of their topic has changed through the process of gathering and rearranging their multimodal materials. By experimenting with diverse ways of arranging multimedia materials related to their topic, students can potentially develop lines of inquiry (and ultimately analytical claims) that they might not have discovered if they had been limited to alphabetic invention activities alone.

Although I think that multimodal invention activities have a crucial role to play in composition classrooms, I certainly do not mean to suggest that we turn away from more conventional alphabetic methods such as traditional freewriting, reading-response journals, descriptive outlines, annotated bibliographies, and paper-based cluster mapping. In my experience, some students will find imagistic composing activities particularly generative while others may find them less helpful; furthermore, some writing tasks may lend themselves to imagistic invention activities more than others. Rather than teaching students one standard set of methods for invention, then, we should instead introduce students to a wide range of visual and alphabetic strategies for generating ideas—engaging them in reflection about which techniques they find most useful and why.

Refrain 2: We Should Recognize the Limitations of Alphabetic Text as a Modality

Although alphabetic text is a powerful modality of communication, it cannot adequately convey all of the ideas composers might wish to express; at times, a writer may struggle to express in alphabetic words an idea that might better be expressed in another modality or combination of modalities (Flower and Hayes, "Images"; Kress). In order to help students learn to become rhetorically effective composers, it is essential that we teach them to consider critically which modality (alphabetic, visual, or aural) or combination of modalities will best enable them to convey their persuasive message.

As a way to help students begin to explore the unique affordances and limitations of different modalities, we might engage them in

actively attempting to transform an argument from one modality to another. For example, students might attempt to "translate" the key argument of one of their alphabetic essays into a multimedia slideshow that combines still images and spoken voiceover (using iMovie on a Mac or Movie Maker on a PC). As students attempt to select and arrange images, spoken words, and titles to convey their argument, we can then prompt them to write a reflection considering questions such as:

- What aspects of your argument were easier to convey with images than words? Which aspects of your argument were harder to convey with words? Why?
- How did you need to revise your academic writing for spoken delivery?
- Why did you arrange and time your spoken words and images in the way you did? How did your arrangement of this video slideshow differ from your arrangement of your alphabetic text?
- How did your argument change when you attempted to transform it from an alphabetic paper to a video slideshow? How did your choice of modalities influence the kinds of ethical, pathetic, and logical appeals you were able to make?

By reflecting about the experience of attempting to make a similar argument using a variety of differing modalities, students can potentially develop a more nuanced understanding of the unique affordances of visual, aural, and alphabetic forms of communication.

In addition to asking students to experiment with transforming an argument from one modality to another, we also might offer students more open-ended assignments in which they must actively choose which modalities, genres, and technologies they will employ in order to convey an argument (Shipka "A Multimodal"). Because this kind of open-ended prompt can be challenging for students, it is essential that teachers engage students in a series of scaffolded, reflective activities to help them carefully articulate their rhetorical goals, analyze their audiences, and interrogate the unique affordances of diverse forms of media. As Jody Shipka notes,

> asking students to produce an account of their goals and choices [for an open-ended multimodal task] reminds them of the importance of *assessing rhetorical contexts, setting goals,* and *making purposeful choices.* More important, requiring students to produce these statements underscores the importance of being able to speak to goals and choices in a way that highlights *how, when, why,* and *for whom* those goals and choices afford and constrain different potentials for knowing, acting, and interacting. (Shipka, "A Multimodal" 288)

By engaging students in actively making and justifying choices about which modalities, technologies, and genres will best help them achieve their rhetorical goals, we can potentially help them develop a richer understanding of how rhetorical concepts such as audience, context, and exigency can be applied and adapted to diverse forms of composing.

Refrain 3: We Can Learn about Writing through Studying and Practicing Other Arts

As a field, we have a rich history of investigating connections between alphabetic writing and other forms of composing. Although there certainly are differences among various arts, it may be possible to develop theories of creative process that are at least partially transferable across modalities. Rather than teaching students to see alphabetic writing as entirely separate from all other forms of composing, we might instead engage students in collaboratively investigating the interrelation of alphabetic writing and other arts.

Following the example of Berthoff, we can begin by asking students to read essays about creative processes in various art forms as well as to write reflections about their own experiences composing with differing modalities. In many cases, students already come to our courses with some previous experience with nonalphabetic forms of communication (for example, taking a drawing class, shooting digital images, writing songs, making YouTube videos), but they tend to see these multimodal composing activities as wholly unrelated to the work of the writing class. By specifically asking students to write reflectively about their creative process across modalities, we can encourage them to begin to develop a transferable understanding of

composing process that they can potentially apply to all the diverse forms of communication they are likely to employ in their lives.

In addition to asking students to reflect about their past multimodal composing experiences, it also can be useful to actually engage students in crafting a multimodal text as part of the work of the writing class. Depending on their particular curricular goals and technological resources, teachers might assign students to compose an audio essay, a video, a multimedia presentation, or a collage—to name but a few options.[8] Although these kinds of digital, multimodal projects will require different technical skills than alphabetic writing, we can nevertheless help students begin to develop a common language for analyzing both their alphabetic and their multimodal work. Whether we are asking students to compose an alphabetic text, a visual text, an audio text, or a text that combines modalities, we can engage them in reflective writing and oral discussion about such potentially transferable questions as:

- What is my goal or purpose for this text? How do I want people to think or act differently after they encounter it?
- Who is my audience for this text and how will I compose it with this audience in mind? What enthymematic assumptions does my audience have about the world?
- What strategies can I use to invent ideas for composing this text? What invention strategies seem to work best for me as a composer?
- How can I select and arrange the elements of this text (words, images, and sounds) in order to make them clear and persuasive to my audience?
- What strategies can I use to help me revise this text? What revision strategies seem to work best for me as a composer?

By organizing our courses around concerns of rhetoric and process that can potentially apply across modalities, we may be able to help students develop transferable composing skills. For example, a student who comes to understand the importance of audience when composing a video text may be able to transfer this understanding of audience to her composing of alphabetic texts; or, conversely, a

student who develops an understanding of the importance of revision in alphabetic writing may then also come to recognize the power of revision in digital audio composing.

As we compositionists work to engage students in drawing connections among diverse forms of visual, auditory, and alphabetic composing, we must of course remember that we are not the only people in the university who have a stake in this project. Scholars of graphic design have substantial experience teaching students to compose visual texts for persuasive (and aesthetic) purposes. Scholars of music have a rich heritage of analyzing the social and cognitive processes involved in composing sounds. Scholars of film and video have developed a complex critical vocabulary for teaching students to analyze and to produce cinematic texts that blend visual, aural, and alphabetic modalities of communication. We clearly have much to learn from allied arts fields about the teaching of composing processes across modalities.

Unfortunately, however, the current disciplinary structure of the university tends to discourage both teachers and students from drawing connections among diverse composing arts. Too often, when a student moves from a design class, to a film class, to a music class, to a writing class, the student is likely to find that the teachers of those courses employ very distinct vocabularies to describe the creative process—vocabularies that appear to be relevant only to the particular modalities of composing on which the class centers. In order to counter this trend, we might consider working with colleagues in allied arts fields to develop interdisciplinary courses and programs that engage students in exploring the similarities and differences in various modalities of communication. Of course, I recognize that such interdisciplinary course and program development is devilishly difficult and may not be possible in all institutional contexts. Yet, even if we are unable to craft formalized interdisciplinary ventures, I would suggest that it is still worth making the effort to talk with (and read the scholarship of) our colleagues in allied arts fields—to consider ways we might redesign our pedagogies to help students draw connections between the interrelated fields of composition, music, film, and design.

2

Composing Voices: Writing Pedagogy as Auditory Art (1965–87)

WHEN I REFLECT ABOUT MY LIFE as a writer and teacher of composition, I don't just see printed pages: I hear voices speaking . . . I feel bodies moving.

I hear my third-grade teacher reading a poem I wrote aloud—breathing life into my words. Making me realize, for the first time, that the written word has power.

I feel the rush of joy I experienced the first time I performed on stage for an audience—the first time I set out to make an audience laugh and succeeded. At that moment, in the fifth grade, my lifelong fascination with rhetoric was born.

I hear myself alone in my room at age twelve, working on a play about environmental justice. I pace around the room talking to myself, then I stop and type at the Commodore 64, and then I pace and talk again. I feel the joy of creation . . . the passion for social change.

I hear myself working as a peer tutor, talking with a student about a very rough, sprawling draft. After about a half hour of conversation, the student speaks aloud a very clear outline of her argument. At that moment, I decide that I want to dedicate myself to teaching writing as a profession.

I hear the many conversations that have inspired this book—the many words spoken by students, colleagues, mentors, and friends that have found their way (often unconsciously) into my prose here.

I hear the rush of spoken words that have permeated my life as a writing teacher: the student conferences, the class discussions, the small group work, the minilectures, the hallway conversations.