Chronotopic Lamination: Tracing the Contours of Literate Activity

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Abstract

This chapter explores the chronotopic lamination (Bakhtin, 1981; Prior, 1998) of writers' literate activity—the dispersed, fluid chains of places, times, people, and artifacts that come to be tied together in trajectories of literate action along with the ways multiple activity footings are held and managed. Twenty-one academic writers (undergraduates, graduates, and professors) participated in interviews where they were asked to draw and then discuss two representations of their processes in writing a particular piece. To further explore writers' multiple streams of activity and the ways texts mediate that activity, we also asked participants to share drafts, final texts, notes, annotated readings or other material they used in their writing. We focus here on four case studies that illustrate our findings. The interviews showed that the writers' work crossed institutional settings, especially mixing home, community, and discipline, and thus was deeply laminated (multimotivational and multi-mediated). In particular, we found that writers actively engage in what we call ESSP's (environment selecting and structuring practices), which not only lead to their texts but also contribute to the distributed, delicate, and partly intentional management of affect, sense, identity, and consciousness.

A psychology professor reports to us that when she is revising an article for publication she works at home and does the family laundry. She sets the buzzer on the dryer so that approximately every 45 minutes to an hour she is pulled away from the text to tend the laundry downstairs. As she empties the dryer, sorts and folds, reloads, her mind wanders a bit and she begins to recall things she wanted to do with the text, begins to think of new questions or ideas, things that she had not been recalling or thinking of as she focused on the text when she was upstairs minutes before. She perceives this break from the text, this opportunity to reflect, as a very productive part of the process. In some respects, this story is a familiar one in cultural-historical activity theory (CHAT), a tale of how tools (external aids) mediate activity, altering the flow of behavior. The dryer-buzzer is acting here, in one sense, as an externalized memory system (like such classical examples as a notch on a stick, a knot in a rope, the words on a page), reminding the professor, in effect, to take a break.

However, there are other elements of this story that we believe are less familiar and that deserve serious theoretical and methodological attention. Here we see two activity systems—the domestic activity of the home, the disciplinary activity of the workplace—becoming to some degree interwoven, and each is thereby altered. The gendered work (with doing laundry often still associated with "women's work") of family household chores is routinely blended into a scientific/disciplinary activity. The psychology paper is revised as the family laundry is done.

Moreover, this act of writing is dispersed, not only across the loosely bounded acts of sitting and working with the text versus standing with the laundry, but also across a series of writing episodes: this process, the professor says, is not for first drafts; it is a step in a longer and blurrier chain of textual invention and production. There is also a puzzle here. Why does the dryer buzzer not act simply as an externalized memory for checking the laundry? Why does the whole sequence of actions—the disengagement from focal action at the site of the text and the reengagement in the domestic chore—become a space for productive reflection on the text, a place where new ideas emerge and older plans are recalled? Methodologically, how can we understand and study these private phases of the dispersed activity, which in this case reveal the folding of clothes to covertly be part of the chain of textual invention and revision for an academic article? These questions draw us into considering the territory of the writer's consciousness, of interior practices. Finally, we also see here a case where higher-order cognitive processes are marked by a delicate ordering of a specific externalized environment. Whereas the dominant metanarrative of CHAT understands development as interiorization and idealization, as a shift from external mediation and external control of behavior to internal self-regulation, here that developmental trajectory has spiraled to a higher stage, one in which self-regulation activity is now (re)externalized so that self structuring is achieved through environment structuring, and with the environment being structured a socioculturally specific one—equipped, peopled, and affectively colored.

In this chapter, we wish to explore how CHAT (and related sociocultural and practice theories) can help us to understand and conceptualize such literate activity as well as how exploring the specific issues of such literate activity—what is afforded theoretically by this disciplinary object—can in turn inform the evolving theories and agendas of CHAT.[1] To address these questions, we will draw on case studies of the literate activity of four writers in a university setting. Through these case studies, we will explore the three dimensions of literate activity described above. First, we will trace the chronotopic lamination (Bakhtin, 1981; Prior, 1998) of the writers' literate activity, the dispersed and fluid chains of places, times, people, and artifacts that come to be tied together in trajectories of literate action, the ways multiple activity footings are simultaneously held and managed. Second, we will turn to questions of sense and affect in literate activity. Here we consider writers' reported struggles to articulate their ideas as a case of what Bolter and Grusin (1999) call re-media-tion, a perspective that we think helps to illumine Vygotsky's (1987) arguments that internalization and externalization alike are transformative processes. Finally, we will examine the varied environment-selecting and -structuring practices (what we call ESSP's) of our participants, the ways these writers worked to manage consciousness as part of their literate practice.

Overall, we are arguing that literate activity consists not simply of some specialized cultural forms of cognition—however distributed, not simply of some at-hand toolkit—however heterogeneous. Rather, literate activity is about nothing less than ways of being in the world, forms of life. It is about histories (multiple, complexly interanimating trajectories and domains of activity), about the (re)formation of persons and social worlds, about affect and emotion, will and attention. It is about representational practices, complex, multifarious chains of

transformations in and across representational states and media (cf. Hutchins, 1995). It is especially about the ways we not only come to inhabit made-worlds, but constantly make our worlds—the ways we select from, (re)structure, fiddle with, and transform the material and social worlds we inhabit.

A Methodology for Tracing the Contours of Literate Activity

In an on-going study, we are approaching academic writers (undergraduate and graduate students, professors) to learn about the processes and spaces of their literate activity. In specific, we ask the writers to participate in an interview about a specific writing project and to share with us some of the texts that relate to that project. We begin the interview by asking them to draw two pictures of their processes for that specific writing project. The basic task for the first drawing is described in these terms:

> The first picture should represent how you actually engaged in writing this particular piece. That picture might show a place or places where you wrote, a kind of sustained episode of writing, what resources you use, other people who are involved, how you vary your activities as you engage in a specific episode of writing, how you feel during the writing.

In addition, we show and talk through several sample drawings. Here is one sample with one transcript of its description (Image 1). In response to this prompt, participants typically draw pictures of rooms in their homes where they write as well as of some of the objects and people they interact with there.

The basic task for the second drawing is described in these terms:

> The second picture should represent the whole writing process for this project from start to finish (or to the current stage). The picture might show how this writing project got started, interactions with other people and other texts, experiences that have shaped the project over time, the history of drafts and responses to drafts, your evaluations of and emotions about this project at different times and so forth.

Again, we also show and talk through several sample drawings. Here is one sample with a transcript (Image 2) of how it was described in one interview. In relation to this prompt, participants typically draw a chain of events across a variety of sites (one drew the continent of Africa with a small village hut in the middle because that was where her field research occurred). In both drawings, participants often produce visual metaphors to depict thought processes and emotions.

Shipka: …I've got some examples of some things that people have done for specific spaces. In this instance, this person represented a very, very cluttered room—bookcases, a table set up in the middle, the papers, the books, the clock. Here's the individual sitting, writing, smoking, um, here's the drink she said she always had with her. File cabinet, the cats are always around, plants and whatnot. And what she had said is that when she engages in a writing process—because writing is very stressful for her—she likes to set up this card table to block off the space as a kind of punishment, so the reward is taking the table down when the writing is finished so that she can move back and forth in that space. And then this individual represented where he tends to....
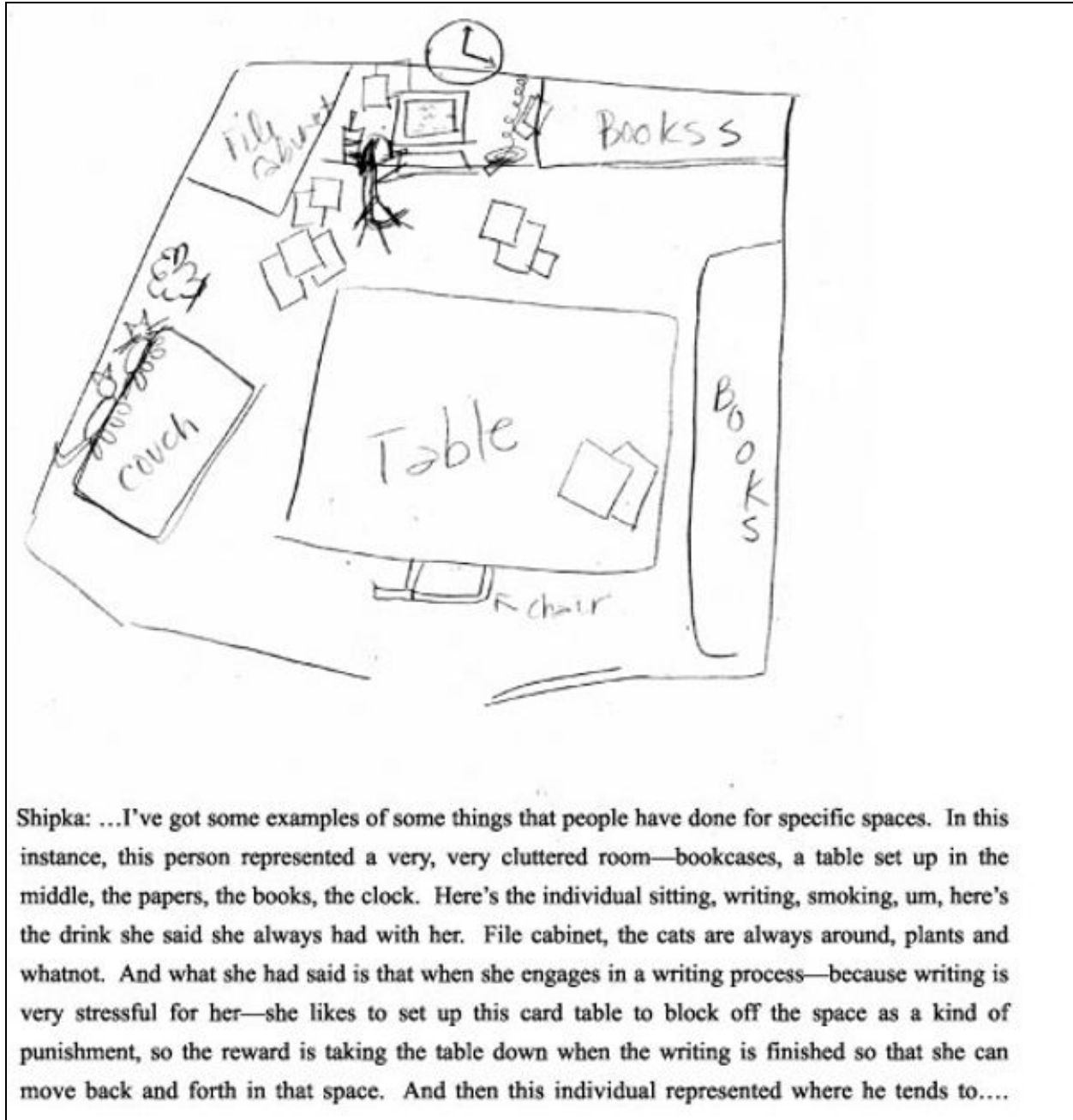
Image 1. Sample drawing of a scene of composing and transcript of description

In addition to the drawings, we also routinely ask the following questions at the points in the interview indicated:

After the two drawings are completed.

- In general, what are your feelings about writing?
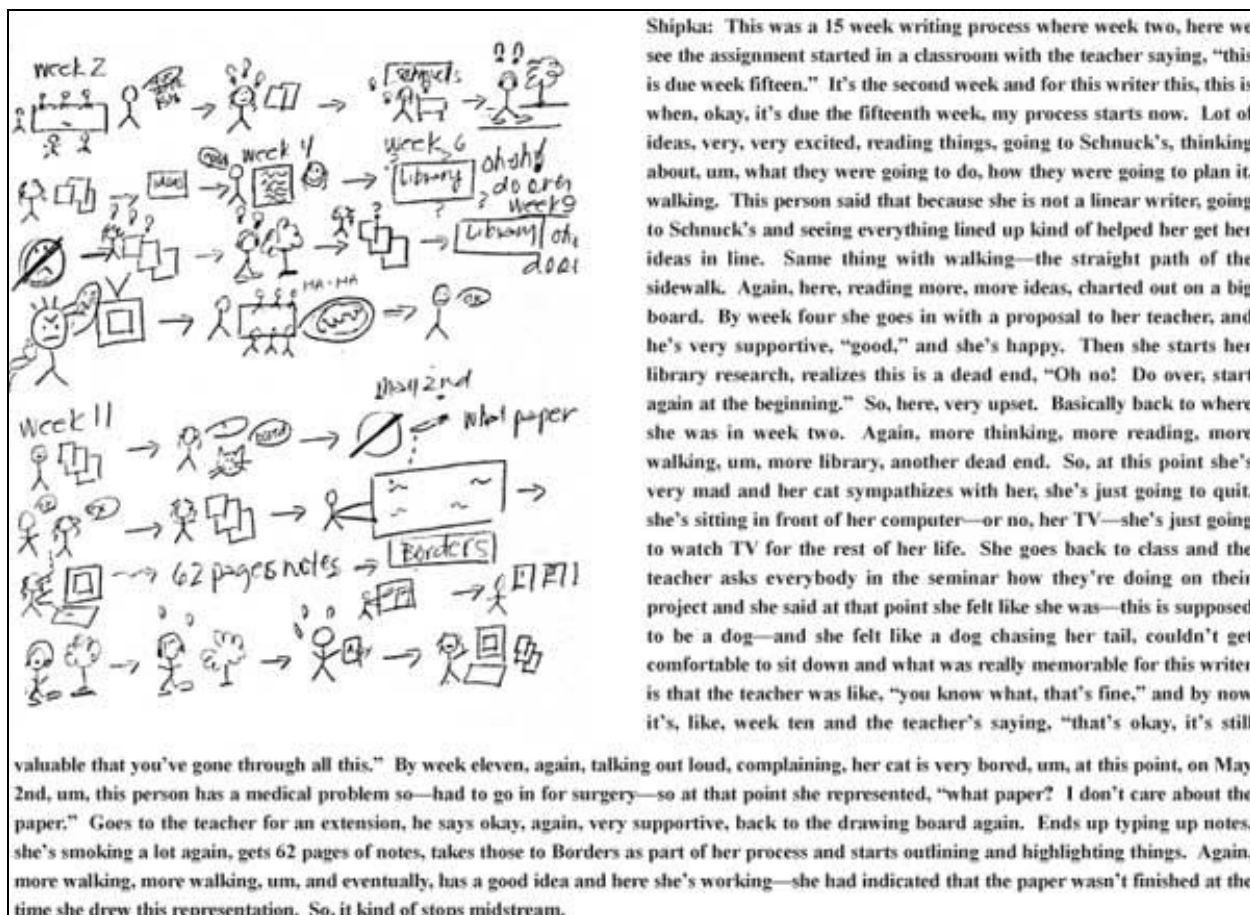- Can you very briefly describe the specific writing project that you have drawn about?

Shipka: This was a 15 week writing process where week two, here we see the assignment started in a classroom with the teacher saying, "this is due week fifteen." It's the second week and for this writer this, this is when, okay, it's due the fifteenth week, my process starts now. Lot of ideas, very, very excited, reading things, going to Schnuck's, thinking about, um, what they were going to do, how they were going to plan it, walking. This person said that because she is not a linear writer, going to Schnuck's and seeing everything lined up kind of helped her get her ideas in line. Same thing with walking—the straight path of the sidewalk. Again, here, reading more, more ideas, charted out on a big board. By week four she goes in with a proposal to her teacher, and he's very supportive, "good," and she's happy. Then she starts her library research, realizes this is a dead end, "Oh no! Do over, start again at the beginning." So, here, very upset. Basically back to where she was in week two. Again, more thinking, more reading, more walking, um, more library, another dead end. So, at this point she's very mad and her cat sympathizes with her, she's just going to quit, she's sitting in front of her computer—or no, her TV—she's just going to watch TV for the rest of her life. She goes back to class and the teacher asks everybody in the seminar how they're doing on their project and she said at that point she felt like she was—this is supposed to be a dog—and she felt like a dog chasing her tail, couldn't get comfortable to sit down and what was really memorable for this writer is that the teacher was like, "you know what, that's fine," and by now it's, like, week ten and the teacher's saying, "that's okay, it's still valuable that you've gone through all this." By week eleven, again, talking out loud, complaining, her cat is very bored, um, at this point, on May 2nd, um, this person has a medical problem so—had to go in for surgery—so at that point she represented, "what paper? I don't care about the paper." Goes to the teacher for an extension, he says okay, again, very supportive, back to the drawing board again. Ends up typing up notes, she's smoking a lot again, gets 62 pages of notes, takes those to Borders as part of her process and starts outlining and highlighting things. Again, more walking, more walking, um, and eventually, has a good idea and here she's working—she had indicated that the paper wasn't finished at the time she drew this representation. So, it kind of stops midstream.

Image 2. Sample drawing of the writing process and transcript of description

- What are/were your feelings about this project in particular? (If there are significant differences here, ask the person to elaborate.)

After going over the first drawing

- Are the places, conditions and supports you have represented here typical in/for other writing tasks?

After going over the second drawing

- Is the process that you have represented one that you typically use for writing tasks?

After the third question above, we simply ask the writers to describe or talk about what they have represented in the first drawing. When the writer's descriptions and our follow-up questions on the first drawing come to a close, we ask the writer to describe or talk about the second drawing and we engage in an active discussion of it. The five questions above have helped us to understand the specific contexts of the tasks the writers describe and also to set those specifics in broader contexts of the typical. Questions 1 and 3 mark our interest in exploring affect in relation

to writing. Finally, in most cases, we are able to examine and ask questions about texts the writers bring to the sessions, texts which have included everything from notebooks, journals, and marked-up readings to full drafts, written responses from readers, final print texts, web sites, and, in one case, a CD burned with images, texts, and movies. We videotape as well as audiotape the interviews so that we have a record of how participants draw and how they point at their drawings and texts.[2]

The task of doing these drawings in response to our prompts and examples has encouraged participants to provide detailed descriptions of the scenes and resources of their writing, of the "procrastinating" (downtime) behaviors they engage in as well as the focused work, and of the emotions they experience (and how they manage those emotions). While participants' drawings offer rich representations for varied types of analyses, we are particularly focused on the way that the drawings and texts are described and elaborated in the interview and on the follow-up questions that those descriptions support. The drawing, in other words, is for us a means to another end—a thick description of literate activity. The combination of texts, talk, and drawings, of participants' accounts and our perceptions, supports a triangulated analysis of these writing processes.

We should address a potential question about the methodology: our use of sample drawings to prompt the writers' drawings. We recognize that these examples may shape the style and content of participants' drawings. Would, for example, pets be included if we did not show examples with pets? Would food be included if we did not show an example with food represented? Would trips to libraries or discussions at bars with friends be included if the samples did not include these kinds of things? Of course, whatever way we elicited the drawings would shape them in some fashion, and participants inevitably must draw on some cultural models to produce representations of their activity. In fact, in designing the study, we were informed by Hanks's (1996) reflections on discourse genres and metalinguistic ideologies. Hanks notes that metalinguistic ideologies (as seen, for example, in the named genres that a person identifies and in conscious articulations of the functions of these genres) are important starting points for research because they represent both reflections of, and tools for creating, the social order. At the same time he argues, research should not stop with participants' everyday accounts, but must recognize that many elements of, in his case, discourse genres go beyond, beneath, and even against metalinguistic ideologies. In the same sense, when we ask the writers to describe their processes, we do not simply want them to articulate their meta-practical ideology of writing, which, as we understand it in general, might construct writing as transcription of text (more so than invention) in bounded episodes and might represent little of the process and even less of the contexts (certainly not pets and food). We use the images and our verbal descriptions, in effect, to cue the notion of literate activity we wish to explore. We should note that, while participants surely take these cues, they have not simply imitated the examples. One participant (Johnson, as we will see below) did his second drawing as a series of storyboards with directions for soundtrack and cuts, a second (Neuman, also seen below) did her first drawing with five different scenes of writing rather than the single scene found in all our examples, and a third (not displayed here) did the second "drawing" by folding a paper repeatedly (and writing words or

phrases in certain folds), producing a complex metaphor of unfolding juxtapositions for his project, thus including <u>none</u> of the concrete scenes and tools or chronologies that all of our examples presented.

We see this methodology as a tool that helps us to sketch the contours of literate activity. These retrospective accounts do not provide the kind of grounded detail available through close observation of *in situ* practices. We cannot, for example, know how well or how fully these accounts of writing would match up with a videotaped record of the process. On the other hand, these retrospective accounts often range across years of experience, multiple settings, and the interior/private experiences of the writer, all things that close observation and videotaping would be very hard pressed to capture. In this sense, we believe that these interviews have functioned not only to point to places where situated research might track and detail some of the literate activity that is only sketched here, but also as a rich "device for thinking" (Lotman, 1990) about the nature of literate activity. In this report, we focus on four writers whose interviews, texts, and drawings illustrate what we are learning about the contours of literate activity in the academy.[3]

Of Chronotopic Chains: Laminating Literate Activity

> However forcefully the real and the represented resist fusion, however immutable the presence of the categorical boundary line between them, they are nevertheless indissolubly tied up with each other and find themselves in continual mutual interaction…. The work and the world represented in it enter the real world and enrich it, and the real world enters the work and its world as part of the process of its creation, as well as part of its subsequent life, in a continual renewing of the work through the creative perception of listeners and readers. Of course this process of exchange is itself chronotopic: it occurs first in and foremost in the historically developing social world…. (Bakhtin 1981, p. 254)

Bakhtin (1981) first drafted out the notion of the chronotope (time-place) as a tool for literary analysis; however, in a later revision, he broadened it to express the fundamental notion of a dialogical social semiotics that Voloshinov (1976, 1973) first articulated. For Bakhtin, the chronotope became emblematic of a fractured ontology—a complex fluid unfinalized and unfinalizable world—in which representational chronotopes (those on paper, in talk, and in the mind) co-evolved with embodied chronotopes, the actual concrete times places, and events of life.[4] Or perhaps it would be best to say that Bakhtin came to view all chronotopes as embodied-representational—with concrete time-place-events deeply furrowed with, and constructed through, representations and with representations always deeply rooted in chains of concrete historical events. Certainly, Bakhtin did not conceptualize chronotopes as some abstract, decontextualized Cartesian time-space coordinates, but as human(ized) worlds filled with historical and social significance, places with expected and unexpected characters, activities, and moods.

In this model then, a literate act, say reading a newspaper, is both localized in the concrete acts, thoughts, and feelings of the reader(s) and sociohistorically dispersed across a far-flung

chronotopic network—including the embodied acts of writing the story, almost certainly spread across multiple chronotopic episodes of individual and collaborative composing; the histories of journalism and the genre of the news story; the actual embodied worlds being represented and their textualized representations; the reader's histories of reading papers and of earlier events relevant to those represented in the story; and so on. Because of the multiplicity of embodied-and-representational chronotopes that are encompassed in any literate act, we find it useful to think of *chronotopic lamination* (Prior, 1998), the simultaneous layering of multiple activity frames and stances (Goffman, 1981) which are relatively foregrounded and backgrounded (Goodwin & Duranti, 1992). Combining understandings of literate activity as social practices that are situated, embodied, mediated and dispersed with the notion of the chronotopic lamination, we see a common challenge for Writing Studies and CHAT: How can we conceptualize and investigate such complex, dispersed, material-semiotic activity? To illustrate this complexity in relation to literate activity, we turn to the writers we interviewed. Each of the writers depicted and described historically laminated activity, chains of invention and inscription over time and across multiple scenes.

Writers' Accounts of Chronotopic Laminations

Megan Neuman is an undergraduate student majoring in engineering. [5] In her interview, she discussed a short writing assignment on her core values that she had done for a class on engineering ethics and communication. The assignment asked her to identify her core values; an associated reading had stated that core values are stable across time. Neuman rejected the central premise and chose an alternative genre of writing, not to meet with the happiest reception from the instructor who graded her assignment. Specifically, she decided to conduct a search for values and to present it as a word jumble (Image 3), so that the instructor would also have to search. In addition, to accompany and contextualize the jumble, she made a list of all the hidden words (Image 4) and why they were there. However, she strategically turned in the jumble first and held back the list until the last minute in the hopes that the instructor would first experience the uncertainty of the word jumble. In every sense, explicitly and implicitly, Neuman's assignment challenged the premise that she should have stable, life-long core values, that she could articulate them (in 250 words), and that she could then treat that articulation as her "mission statement" for life. Neuman noted that she spent about 10 hours working on this assignment and felt proud of it in spite of the fact that her classmates said it would not be accepted and told her they were writing out their core values in 30 minutes. Her instructor gave her a 2 out of 5 on the assignment and offered her the opportunity to redo it, which she did, writing "what they wanted to see" in a half hour without any sense of ownership, and getting 5 out of 5 in return.
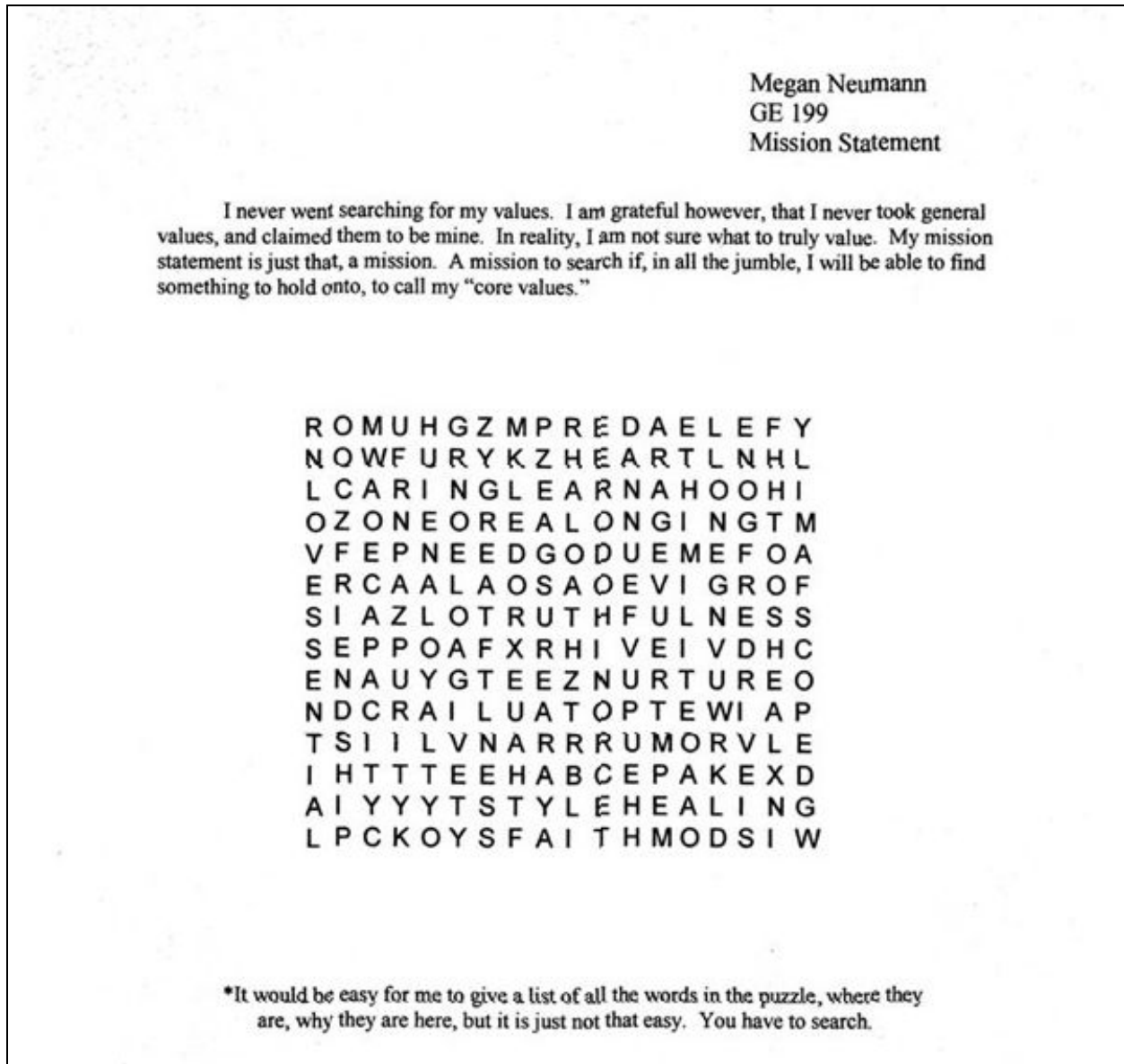
Megan Neumann
GE 199
Mission Statement

I never went searching for my values. I am grateful however, that I never took general values, and claimed them to be mine. In reality, I am not sure what to truly value. My mission statement is just that, a mission. A mission to search if, in all the jumble, I will be able to find something to hold onto, to call my "core values."

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R O M U H G Z M P R E D A E L E F Y
N O W F U R Y K Z H E A R T L N H L
L C A R I N G L E A R N A H O O H I
O Z O N E O R E A L O N G I N G T M
V F E P N E E D G O D U E M E F O A
E R C A A L A O S A O E V I G R O F
S I A Z L O T R U T H F U L N E S S
S E P P O A F X R H I V E I V D H C
E N A U Y G T E E Z N U R T U R E O
N D C R A I L U A T O P T E W I A P
T S I I L V N A R R R U M O R V L E
I H T T T E E H A B C E P A K E X D
A I Y Y Y T S T Y L E H E A L I N G
L P C K O Y S F A I T H M O D S I W
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*It would be easy for me to give a list of all the words in the puzzle, where they are, why they are here, but it is just not that easy. You have to search.

Image 3. Neumann's Mission Statement (turned in first)

In her first drawing (Image 5), she actually represents five different scenes where her work occurred. Her apartment was the space she detailed the most. This central image shows her sitting on a couch with a dictionary and drafts on the coffee table, a phone that she used to call a number of people (family and friends, who are shown as a line of linked stick figures), a television unplugged and not in use, her computer table, and a globe that she attended to as she wrote to remind herself of cultural differences in values. However, from top left, she also depicted her classroom, the engineering library (Grainger), a bus, and the food court in the student union (labeled with the names of two food chains). She explained how she immediately thought of doing something different in class when the assignment was given and settled rapidly on the idea of doing a word search:[6]

> Ah, well right when they had, they had said it, like, I, I had an idea right away, like, what I wanted to do. I wanted to do something different because this was, this was based on something they want you to be able to like live by so I knew I wanted something that was 250 words on a piece of paper and, um, right in class, like, they, they told us about it and I started, like, thinking of all the different possible words and, I knew I couldn't get them all to go in 250 words, so I figured the best way to do is probably a word search.

Thus, as the class moved on to other activities, Neuman began working in her head on this assignment. She also indicated in the interview that she had worked on this assignment during that week in several classes (when she got bored). Clearly, her work on this project was diffuse, dispersed across multiple scenes. This dispersion, Neuman indicated, was typical, but more extensive than usual (e.g., noting that she rarely worked on the bus) because she was so engaged in this task.

The following is a list of the words found in the crossword puzzle. They are not exactly what I value, but rather what I believe are valued, it is my mission to look through all of these to determine what I will value.

Humor-always important to laugh
Leader-many people value being a leader, with it comes power
Fury-while it shouldn't be valued, it often is
Heart-I hope one day to really have this one down
Lone-another way to describe is to call single, solo, I though Albert would appreciate this one. He claimed, with it, all else follows
Gone-sometimes I know I value being gone
Soothe-this can really be valued, after hard times, it is so very important
Family-everyone puts it on their list, but is it really valued?
Love-I know I need it
Caring-I wish I could value it more
Learn-I wouldn't be here if it wasn't for this
Rage-It is always valued
God-Some still value God, while others think it's a joke; at least he made the list
Loath-Is to be reluctant or against, we all have to take a stand sometimes
Need-I know I value what I need
Zeal-Passion is an important part of life; it keeps it interesting
Friendship-valued very highly, you choose your friends
Longing-It makes what you want even more special when you get it
Truthfulness-sometimes it is not what you want to hear, but what you have to hear that winds up getting valued
Capacity-the limit
Essential-just like need, we value what is Essential
Purity-it looks so good in the pictures
Loyalty-it's nice to have someone on your side
Give-since it makes you feel so good
Tear-a true sign of emotion
Sure-it feels good to be certain
Lite-easy going
Drive-it keeps you going
Heal-while sometimes it is hard, it is also very important
Brutal-I wish this one wouldn't make the list, but in reality, I think it always will
Scope-it is nice to know when something is a possibility, or in my scope
Nurture-We always protect the little ones
Style-I wish I had some
Star-I am not sure if this one is for me to be a star, to value stars, of just a star in the sky, maybe all of the above
Rumor-if they weren't valued, no one would spread them
Hear-I take it for granted, but sometimes, I really do value it
Healing-It is always important to heal
Faith-what would we do without it?
Wisdom-only the wise truly know what to value

Image 4. Neumann's list of values (turned in separately just before the deadline)

Image 5. Neumann's drawing of scenes of writing

Her second drawing (Image 6) covers the same basic time frame as her first drawing, but now presenting a more fluid and interior view of the process, especially highlighting her thoughts and feelings—through facial expressions of hers and of people she talked to (seen along the right edge of the drawing) in the process. Neuman brought to the interview the word jumble and the list of words with brief explanations as well as an e-mail from her instructor, but she did not bring her re-do, which was a standard paper. The list of words and explanations seems at first glance somewhat telegraphic and condensed (e.g., *Humor—always important to laugh*);
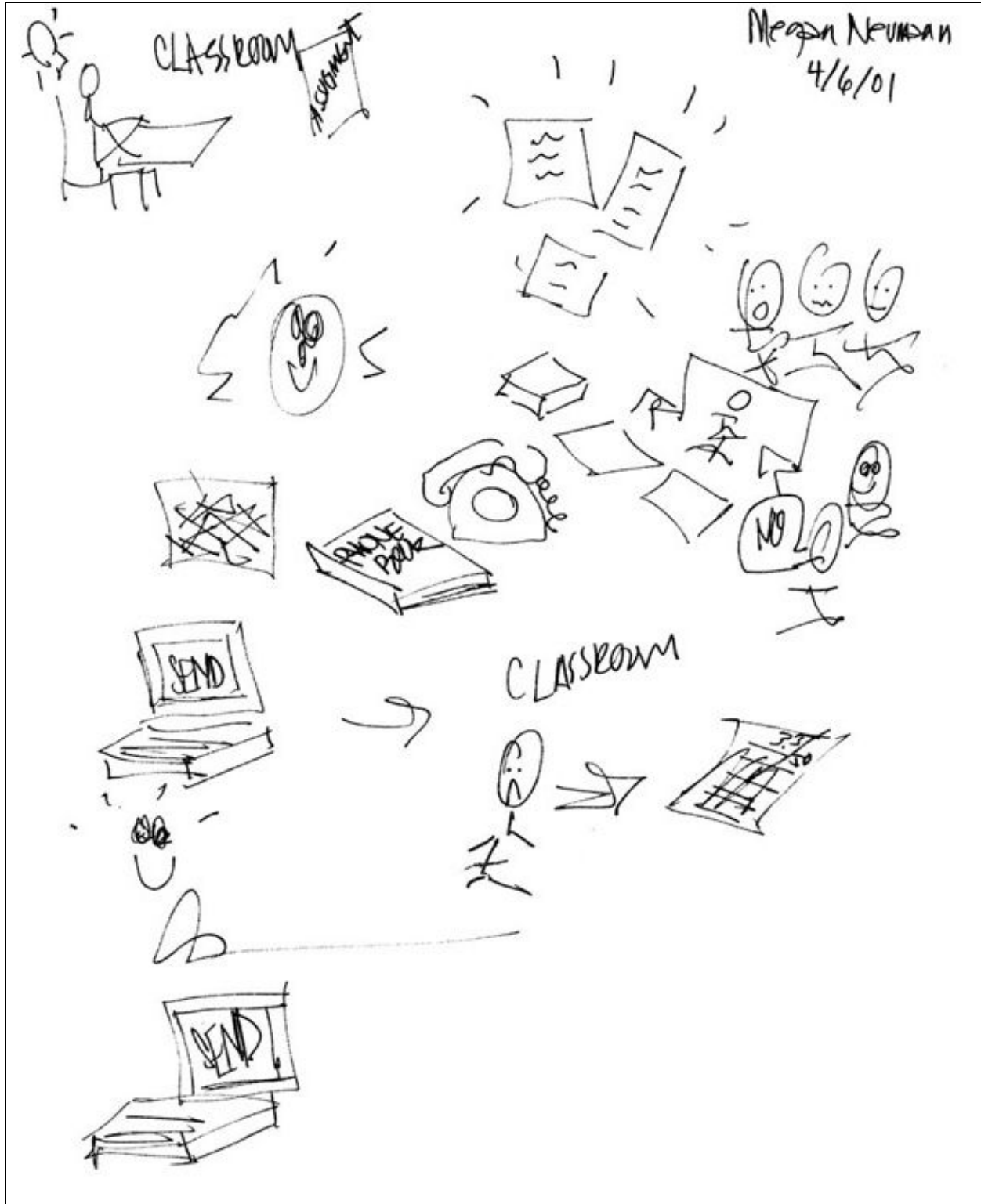
Image 6. Neumann's drawing of the writing process

however, consider other entries, such as: *Lone—another way to describe is to call single, solo, I though Albert would appreciate this one. He claimed, with it, all else follows.* When asked in the interview who Albert was, Neuman replied that he was a very vocal member of the class who

was "always talking about being independent and being by yourself and being able to stand, like, on your own." It is difficult not to hear the dialogic resonances of *Gone—sometimes I know I value being gone*, even if it is not possible to settle on some definitive sense for this entry. The list is marked by variations in evaluation and personalization as well as in degrees of elaboration. Compare, for example, the personalization and endorsement of *need—I know I value what I need* with the distance of *fury—while it shouldn't be valued, it often is*. Like Aladdin with his lamp, Neuman makes three wishes: *Caring—I wish I could value it more; Style—I wish I had some;* and *Brutal—I wish this one wouldn't make the list, but in reality, I think it always will*. In short, this list is filled with chronotopic links, sometimes subtle, sometimes explicit, to other times, places, and people, perhaps especially to the multiple conversations in person and on the phone that she initiated to construct this list of values-in-circulation.

In her interview, Neuman discussed the process, her motives and feelings during it, and the varied responses she got to her ideas along the way. When asked about what audiences she had imagined for the word jumble or had actually shown it to, she explained that she not only showed the jumble to other people, but also had conceptualized it as a kind of psychological test of perception and expectations.

> I, I showed it to a whole bunch of people in the class and just cause I, I was proud of it, basically. And I wanted to see who could like, if, what, what things they'd be able to pick out cause I figured, like, if you were to look at this, you might, I don't know if it's true or not, but I was kind of wondering which words you'd be able to see right away, if those were the words that you're expecting to find in it, then you'd be like, "oh, there's god—that, that's very valid," you know or would you be able to find, like, the words like fury or would you, I mean, cause if you didn't expect to see it in there, would you be able to? And, so, I was kind of curious.

As the same text entered into other scenes with other audiences then, it also began to take on other functions than the official one cued by the class, another mark of its laminated character.

Neuman concluded by talking about how frustrating she found it to watch others write without much thought or care or ownership and get 5 out of 5 on these short assignments, just as she did when she re-did the assignment. In writing this single short assignment, Neuman knit together a number of acts and scenes of text production on a wider landscape of affective and motivational trajectories.

Brent Johnson is an undergraduate student majoring in kinesiology. In the interview, he discussed an assignment in a composition course that one of us (Shipka) had taught. The assignment asked him to write an autobiographic essay about learning. In the first draft, he wrote a paper that reflected on how movies referenced key events, relationships, and lessons of his life. All of the lessons learned were outside of school because, he reported in the interview, school had never been where he learned best. However, in part because the course also encouraged students to consider multimedia and experimental forms of representation, Johnson presented his paper as a box set of movies that he had re-purposed[7], cutting his story, his life experience into the various (popular) movie boxes collected. The collection was called "Reel Learning." Johnson

put a full body shot of himself on the outside of the set. Save for one box in the collection, the re-purposed boxes did not include videotapes of the films he deemed important to his life/education. Instead, he placed a card inside each box that described the importance of each movie—the cards told readers what/how that specific movie taught Johnson something. The project proper, then, consisted of the re-purposed boxes and one viewable videotape, in which Johnson cut together (more re-purposing) pieces of the films and included segments from a video that he had made in high school about his cross-country experiences. For the second draft, he was supposed to change the form; he decided to further re-purpose the text he had written, making it into a film, with himself as commentator. Over spring break, he went back to his old high school, borrowed film equipment, and shot a movie version of the project. This film version showed Johnson sitting in front of the camera narrating the various scenes he arranged for viewers.

In his first drawing (Image 7), Johnson drew his dorm room, where he wrote the first draft of the paper (and watched the movies). The drawing depicts Johnson sitting on his bunk bed with a notebook at his side, facing the TV and VCR with the movie rack next to it. He also draws arrows, pointing to the phone (which he used to call family and friends back home), to his roommate (also a friend from home) sitting in a chair and watching the movies with him, and to his desk (with a computer, printer, and calendar on it and music coming from the computer's speakers). In his second drawing (Image 8 and Image 9), Johnson drew a storyboard version (18 panels in all) of his writing process. Johnson's storyboard representations make a key point about chronotopic chains: He recruits prior experience to the present task. His first five panels all represent experiences he had had before the class assignment was ever made, and those experiences are diverse: growing up at home, going to movie theatres, watching movies with friends at home, running track, and taking a class in video production in high school. These panels make the point that any experience at any time or place might become salient in some writing process. Panels 6 though 12 depict the process of writing the first draft. Panels 13 through 17 depict the process of re-purposing the first draft into a film, and the final panel (unnumbered) projects to the future, the sequel to his high school lessons ("Reel Learning II, The college years"). Below each panel in the storyboards are three boxes: the first for what and where, the second for music, and the third for transition to the next panel. In the first draft panels, for example, panel 11 depicts Johnson typing at the computer with notes on his desk. Below the panel the first box names the scene "Work w/notes/start typing," the soundtrack is marked "Music to study by" and the transition is not to panel 12, but back to panel 9, "Watching movies/taking notes" which transitions to 10 ("Call parents/friends; talk with roomie"), which transitions to 11 again. In short, panels 9-11 represent a recursive process of consulting sources (film and human), taking notes, and writing (Image 10). In the interview, Johnson discussed the process he had followed, what had motivated him to take this approach to the assignment, and how he felt about this assignment.
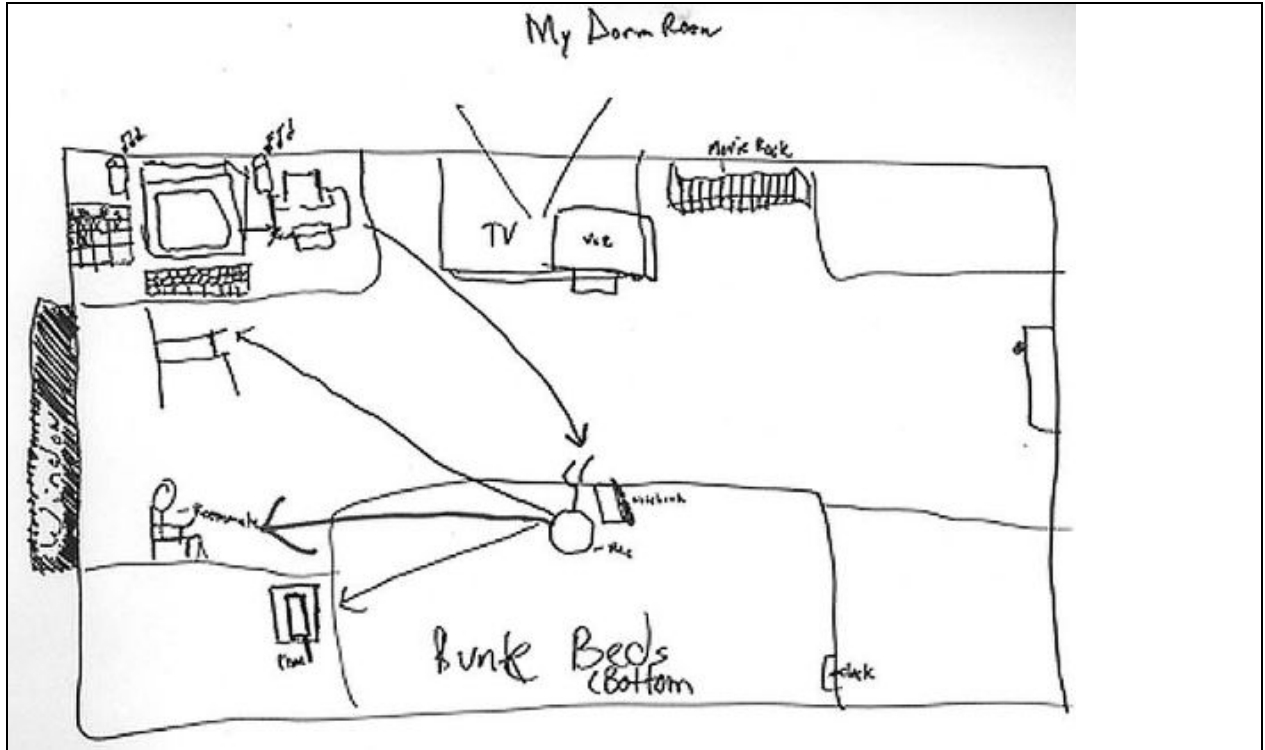
Image 7. Johnson's drawing of a scene of writing
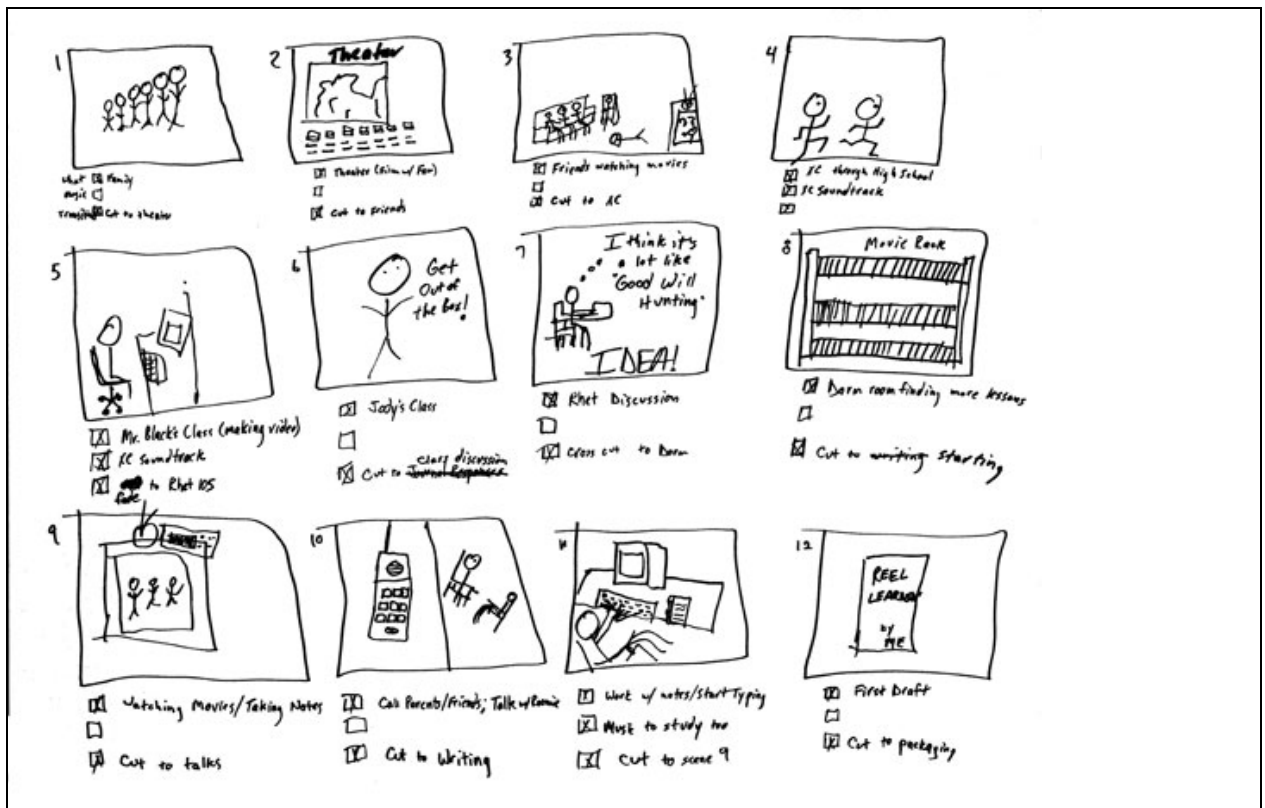
Image 8. Johnson's drawing of the writing process (Page 1)
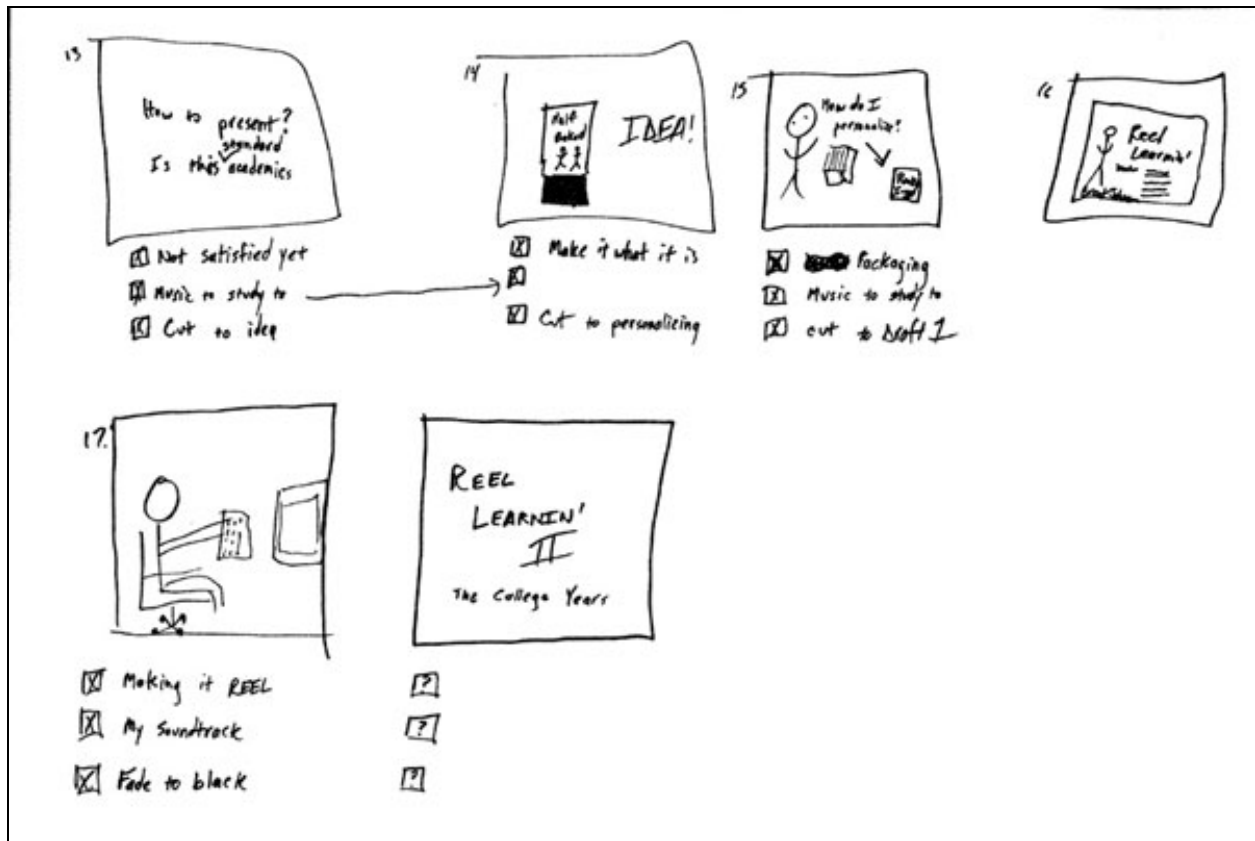
Image 9. Johnson's drawing of the writing process (Page 2)
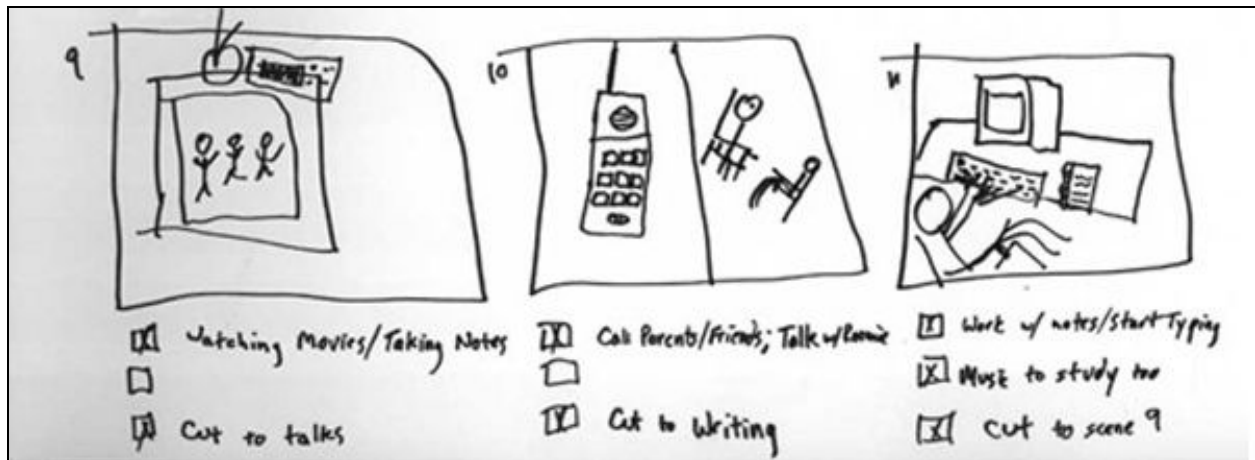
Image 10. Panels 9-11, a detail from Johnson's process drawing, page 1

More generally, his project highlights the co-genetic character of chronotopic trajectories. He is producing autobiographical reflections, and many of movies he re-purposes tell the story of a person. He emphasizes his high school experiences running cross-country, where a painful injury ended a race and his running career. The video he made in high school was about these running

experiences, and one of the movies he refers to is *Prefontaine*, a movie about a runner who faces a painful injury during a race. In his first draft of the paper, he wrote in part:

> Prefontaine represents the time when my life was dominated by running, but it also represents the tragic ending to my dreams. Just as in the movie, Pre drops in his only Olympic race to a heart-breaking fourth place, so too did I suffer a terrible defeat at the height of my career. Two stress-fractured legs seemed to demoralize me just as Steve Prefontaine had been demoralized. Rededicating myself to a sport so cruel and unforgiving seemed an unachievable ideal. As I watch Pre stager to his devastating finish, I see the very race where both my legs gave out on me. His pain becomes mine. The reality of the moment is far too real for film, it is my memory.

When Johnson sat down to write about lessons he had so far learned in his life, he could draw on the thickly threaded trajectories of biographical and autobiographic genres in print and film, on the embodied and representational chronotopes of running and injuries, and on many chronotopic moments in which he was watching films (always with certain people, in a certain mood) and eventually making his own films.

Michelle Kazmer is a graduate student working on her Ph.D. in Library and Information Sciences. In her interview, she discussed work on her dissertation prospectus, which was then still in progress. In her first drawing (Image 11), she depicted the two apartments she regularly wrote in, one belonging to her and the second to her fiancé, whom she termed "curly-haired guy" throughout the interview. A black line separated the two spaces, but the line was crossed by a road. Both apartments were adjacent to city parks, so both had trees outside. Kazmer focused on the office or work space of both apartments, not representing them except by the words "rest of apt" along one wall (with "rest of world" along a second wall). In her apartment, she represented the computer, files, chairs, books, and the printer (bolded because she prints out constantly as she writes). She also represented the piles of papers that surround her as she writes. The second apartment again showed a desk space, papers, a computer and a portable file. It was also split with a dotted line to separate her workspace from that of curly-haired guy, who often worked there at the same time, back to back. Among the material conditions she described was the fact that both her computers used two keyboards, one of which was set at her feet so that she could hit the space bar and the backspace key with her toes and thus relieve stress on her hands and wrists.

In her second drawing (Image 12), Kazmer traced a series of steps that began as she shifted from the idea for dissertation research that she had brought to graduate study to a new plan that emerged from work as a research assistant. Kazmer's dissertation proposal process stretched across three years, beginning in 1998 as she was working as a research assistant, doing telephone interviews and transcribing them. (These experiences introduced her to qualitative research, leading her to pursue qualitative designs in her own work.) The drawing went on to represent a series of struggles as she worked to develop her prospectus. The middle of the page depicts discussions with curly-haired guy at a local bar. The conversations dealt with the content of her

proposal, but were especially critical in managing affect and motivation at a point when she despaired of finding a way to write the prospectus:
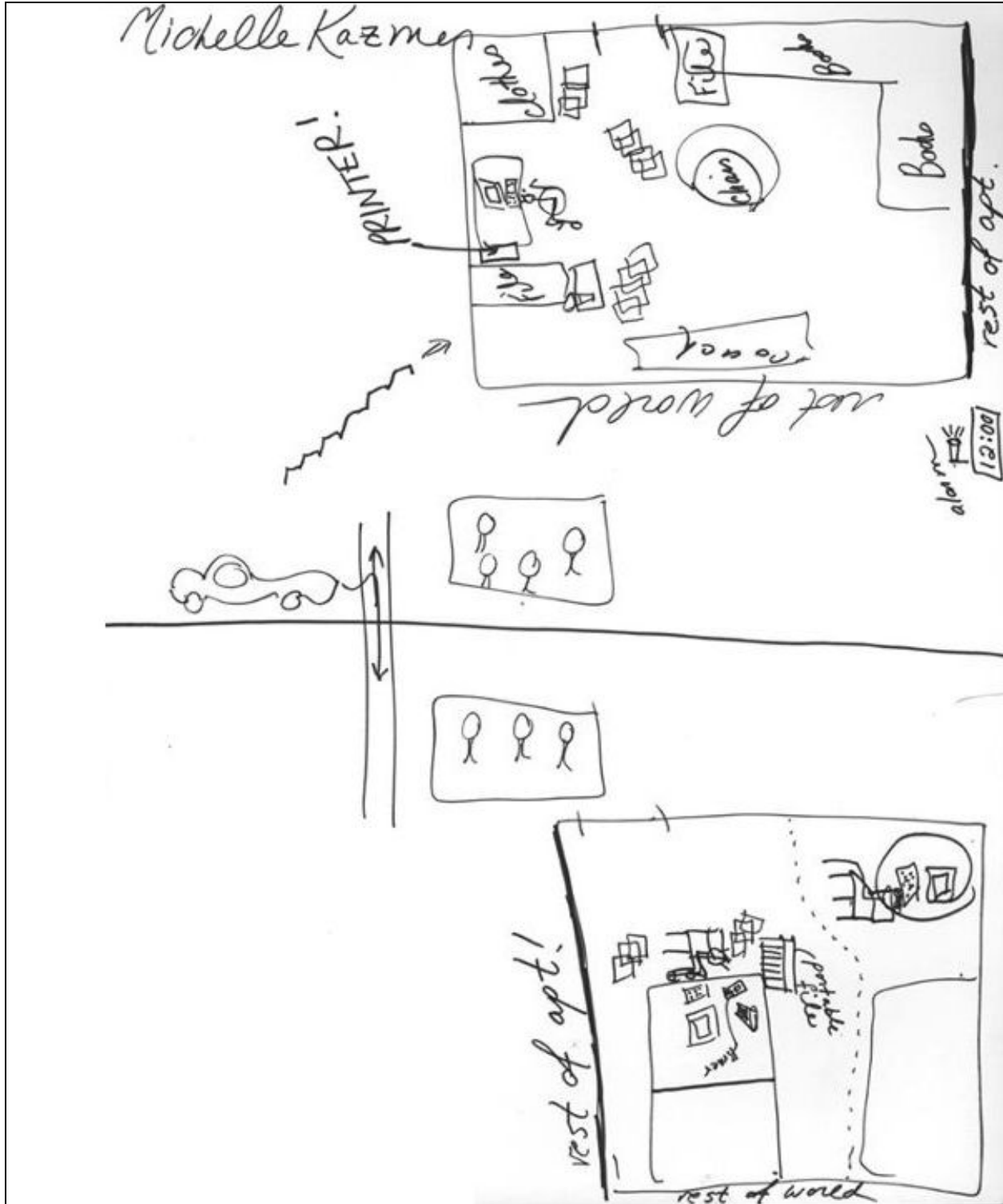
Image 11. Kazmer's drawing of scenes of writing
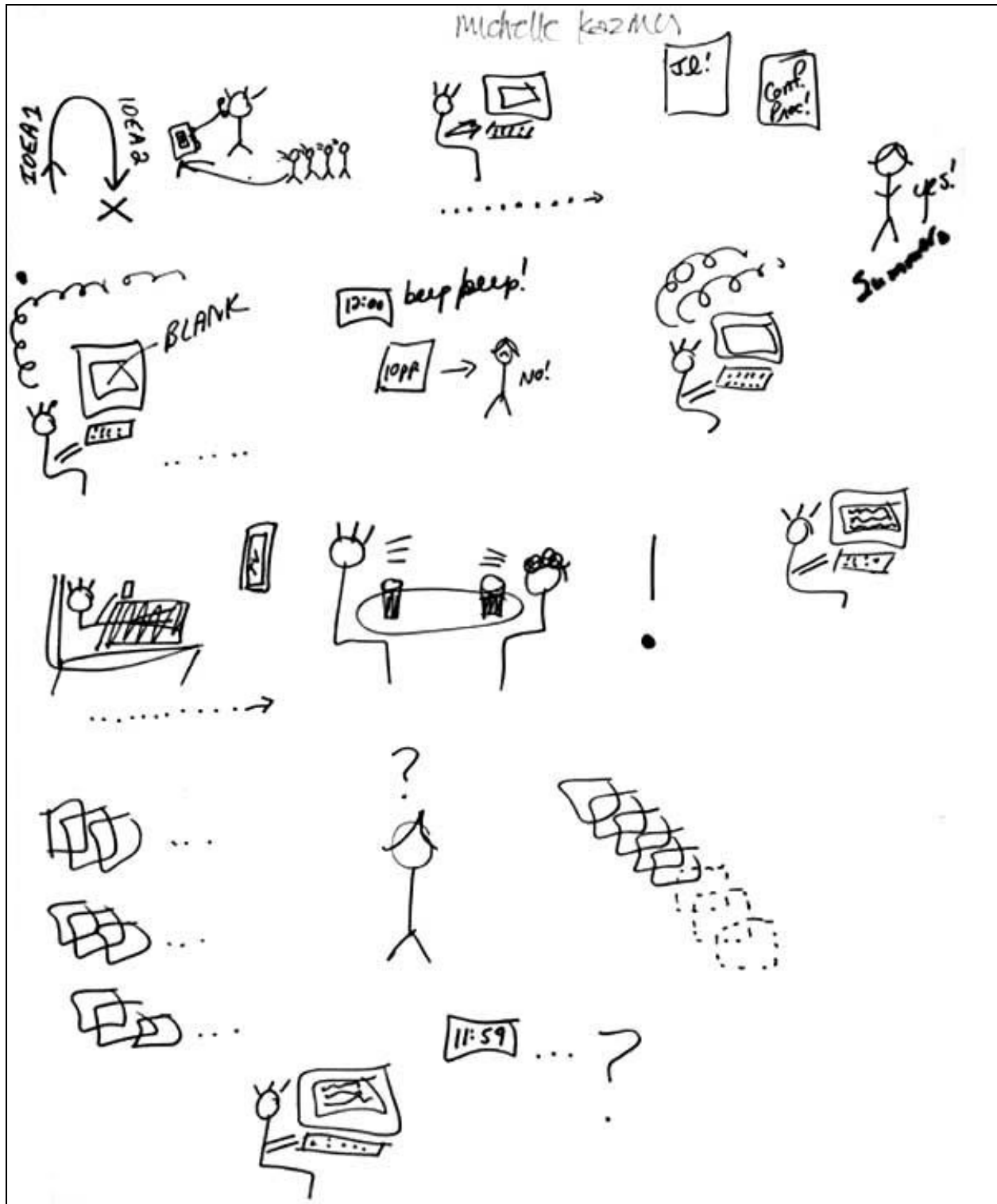
Image 12. Kazmer's drawing of the writing process

> Curly-haired person comes in here, living large because, um, it was, this is
> the Esquire—it's kind of hard to tell because it's a little table and that's-
> they're pints there at the Esquire and this is us talking back and forth. And,
> um, finally I said, I have not been here for three and a half years to walk out

of here without a degree. This is stupid! You know, I just, I can't sit in front of the computer and just go, "heeh, heeh, heeh." You know? I just have to write something. It doesn't have to be the best dissertation proposal ever, it just has to be good enough to pass and, you know, that's what people are always telling me, right? So, curly-haired person and the beers and the Esquire and, you know, I finally get to that point where it's like, "NO!" Okay, fine. There's typing on the screen now

In the drawing (Image 13, detail from process), we see Kazmer's representation of herself at home watching TV (not writing and depressed), at the table in the bar, and then back at the computer writing again. The bottom sequence of images depicted her on-going work to complete a draft.
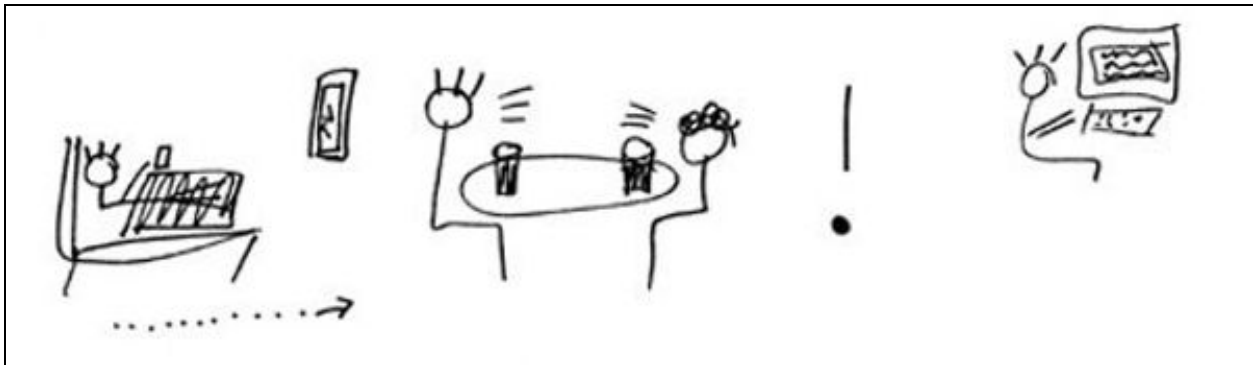
Image 13. Detail from Kazmer's drawing of the process

Kazmer brought a journal that she kept in addition to a thick sheaf of drafts and e-mail messages from her advisor. As she looked through her journal in the interview, she described its diverse contents (e.g., Image 14).

These are truly all-purpose. I mean if I flip through here, I will probably find for you things like, um, you know, yeah—here's one. This is actually an attendance sheet. This is which of my students were in my lab on this day and which ones were missing. Um, you know, on the other hand, this was precded by notes from an actual meeting from my advisor about my proposal. And followed by some, some much more densely written notes to myself and this actually I know from looking at them—this is when I was wrestling in here somewhere—where I was trying to deal with this. Um, just here—you know. Stuff like this. "I have no idea what that means." Okay? Um, stuff like this "85 citations, 36 pages double-spaced." I read somebody else's dissertation proposal and, you know, content-schmontent! You know. What I wanted to know was how long is it and how many citations do they have. So I wrote that down. Um, you know, notes on somebody else's doctoral dissertation. Um, notes on a book that I'm reading that's relevant to my stuff. Notes from a meeting the doctoral students had with the dean at GISLS that has absolutely nothing to do with my personal work—just miscellaneous kinds of stuff. I mean, really, "still have Mishler?" [inaudible] "Yes." yeah. Okay. This is in the middle of me, like, randomly writing stuff down about my proposal. I wanted to know, "do I still have the Elliot Mishler research interviewing book at home or did I return it to the library. Well, I found it. I have it at home. Um, but it really goes, you know, across, you know, to a

faculty meeting I went to because the doctoral student representative to the faculty canceled out that day. Um. . um, right. I was in a lecture one time. You know, funny notes. Somebody said "climactic" when they meant "climatic," of course, which I found to be really hilarious and, and, you know, promptly, promptly wrote it down. Um, these are actually—this notebook actually went with me when I defended—when I did my oral defense of my specialty exams. These are the actual—this is the actual oral for my specialty. This is the paper that I had in front of me, you know, where people are coded by initial and the things that they said, um, me buying time, thinking while they asked a question…. periodically what I'm doing with you now, like whatever notebook I've been working with most recently, I'll flip through it and, you know, cause—oh wait! [Shipka: "Hangman?"] YES!!! [Shipka laughs] YES!! Curly-haired guy and I play Hangman incessantly. I'm a crossword puzzle-, and we play Hangman incessantly! As a way of thinking. We have our own special form of Hangman where things have to connect up but the connection can be as obscure as you want them to be. Um, notes during lecture, what have you. But yeah. So obviously, this, this notebook we probably went to a bar, talked about work and so there's notes from that, um, idea about putting my own picture on my business card, right? … I can flip through and I see things like me trying to set up my schedule—my work schedule for the semester. Well, yeah! You notice, well you notice I'm at a conference while I'm doing this, right? I'm sitting in a conference session actually taking notes on the conference sessions. You know, the presenter
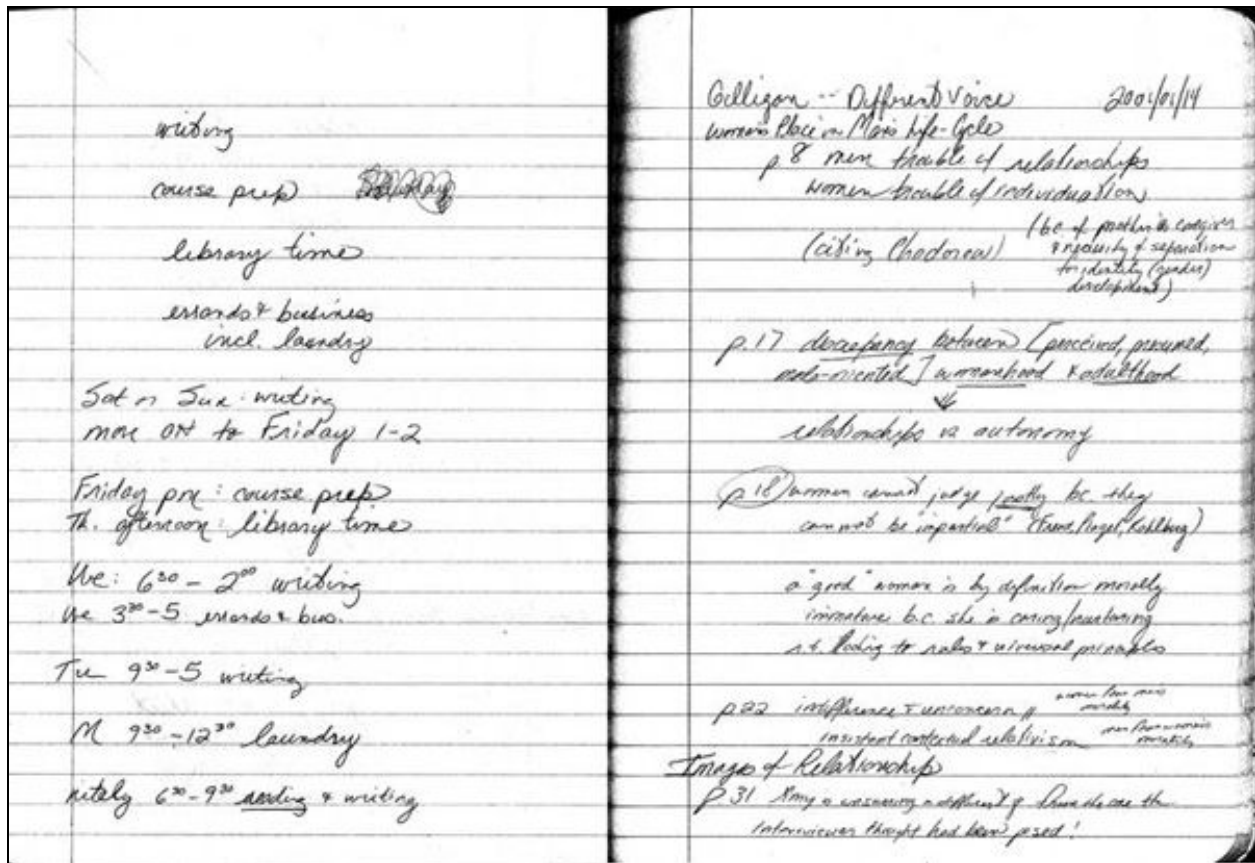
Image 14. Pages from Kazmer's journal

> and what they talked about and the URL that they gave in the middle of trying to figure out my work schedule for the semester. The session must not have been all that interesting!

The notebooks Kazmer brought to the interview thus indexed the complex historical and interactional lamination of her academic activity.

Melissa Orlie is an Associate Professor in the Departments of Political Science and Women's Studies at the University of Illinois. She has published articles, book chapters, and a book, Living Ethically, Acting Politically (Cornell University Press, 1997) that drew into dialogue the work of Hobbes, Foucault, and Arendt. In the interview, Orlie talked about an essay she was writing on walking as a practice, an essay that would link Nietzsche, Emerson, and Thoreau. The essay, in turn, was intended as part of a book that especially addresses Nietzsche, Emerson, and Freud.

In her first drawing (Image 15), she depicted the space of her home, focusing on two rooms, the living room and her office. She noted in this space the furniture, the placement of books, the position of windows, and various objects that helped create a mood, including a fountain with running water and a statue of the Buddha and, on her desk, a cup of black tea, a candle, plants, and incense. In her second drawing (Image 16), Orlie represented a split world of public and private settings. The top of the drawing abstractly evoked as empty rectangles the worlds of public presentation, peer review of manuscripts, and publication. The bottom two thirds of the drawing, representing the work process, appeared under a heavy black line and the words "I like to live in this world" with an arrow pointing down. This section of the drawing contained a number of boxes—foregrounding her practices of notebook writing and notation of texts in relation to writing on the computer, her processes of reading in various places, and her habit of walking (directly relevant to the content of the essay she was writing but also a typical part of her process)—as well as and a stick drawing of her partner, Sam, who was a key reader and respondent to her drafts. Orlie also brought along three (of the many) notebooks (Image 17) that she used extensively in her writing and a copy of a book (The Portable Nietzsche) that she had densely annotated (Image 18).

Overall, her discussion of her writing ranged widely over practices of writing, feedback from close and distant audiences, the material contexts of her writing, and the various kinds of struggles that writing encompasses. It also ranged widely over time, reaching back to classes, professors, and thinking she engaged in as an undergraduate at the University of California, Santa Cruz. She talks about varied moments of writing, reading, walking, and gardening. However, we would go beyond the interview to the introduction to her book as it offers a powerful account of chronotopic lamination and writing. Orlie (1997) writes about ways that experiences "living in New York City crystallized for me ethical problems and political questions that have reached one culmination in this book" (p. 2). In particular, she links her dwelling with her scholarship:

> Chapter 1 begins with a meditation upon our need to secure a home in the world (I mean a place to sleep and eat, not an ontological sense of belonging)
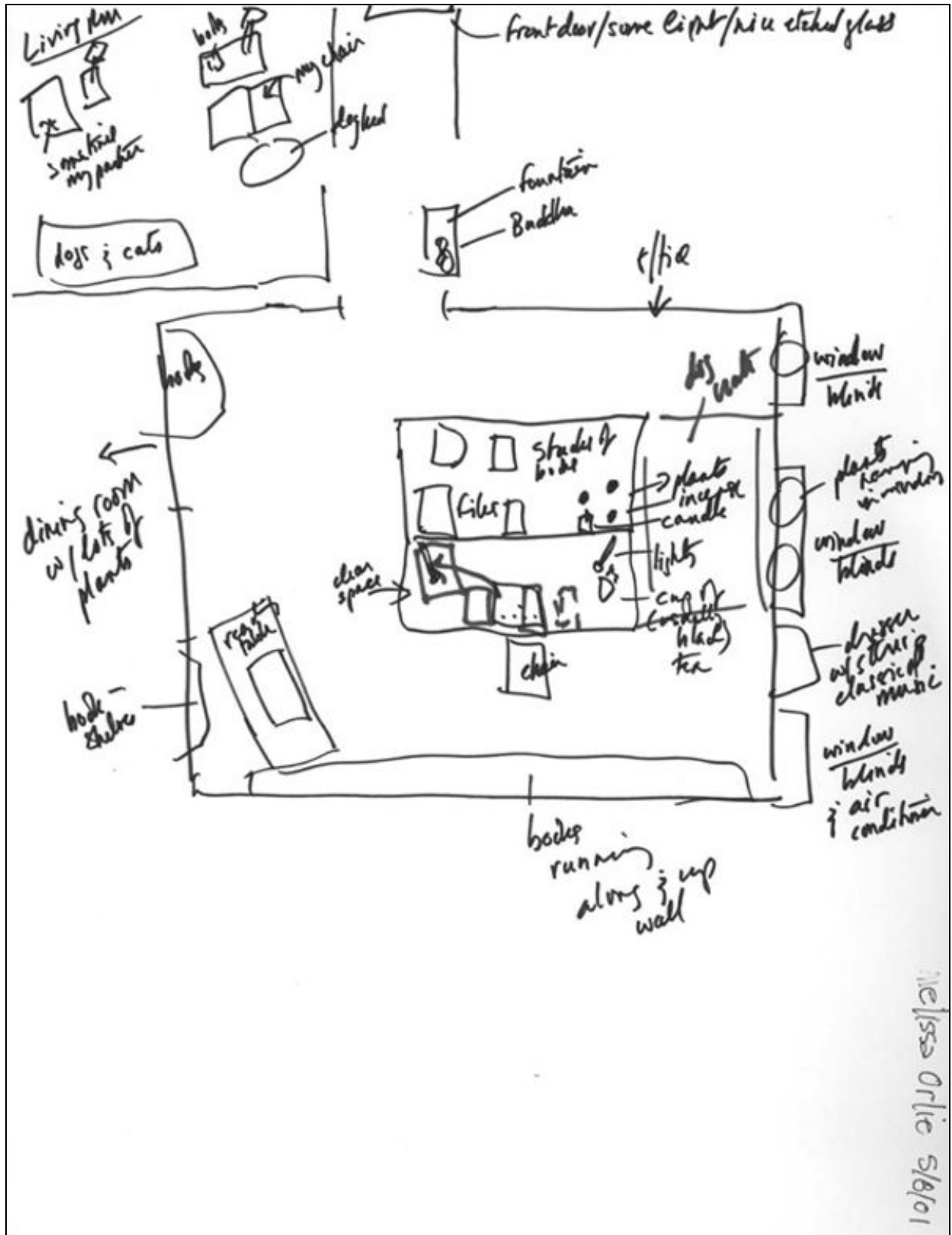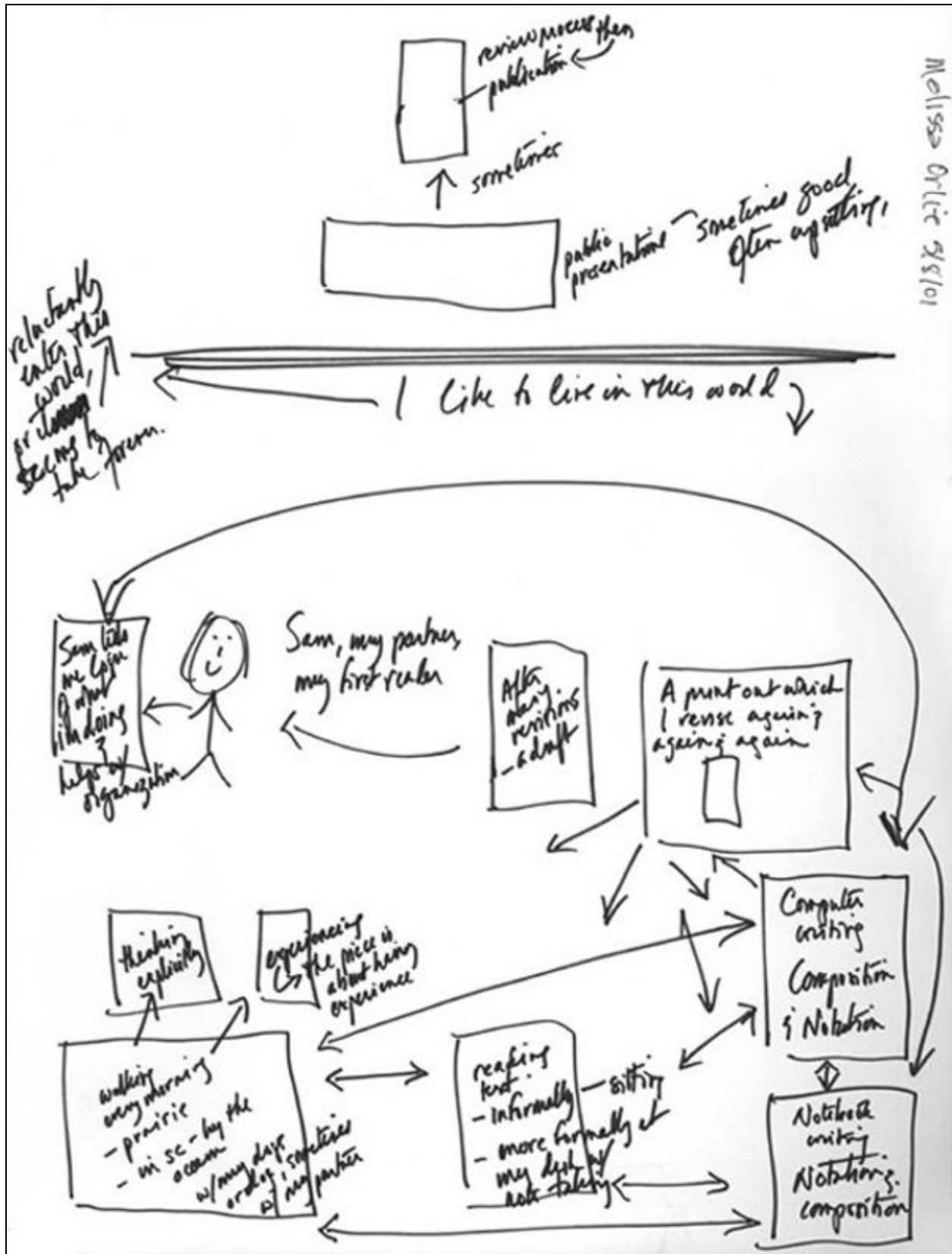
Image 15. Orlie's drawing of a scene of writing

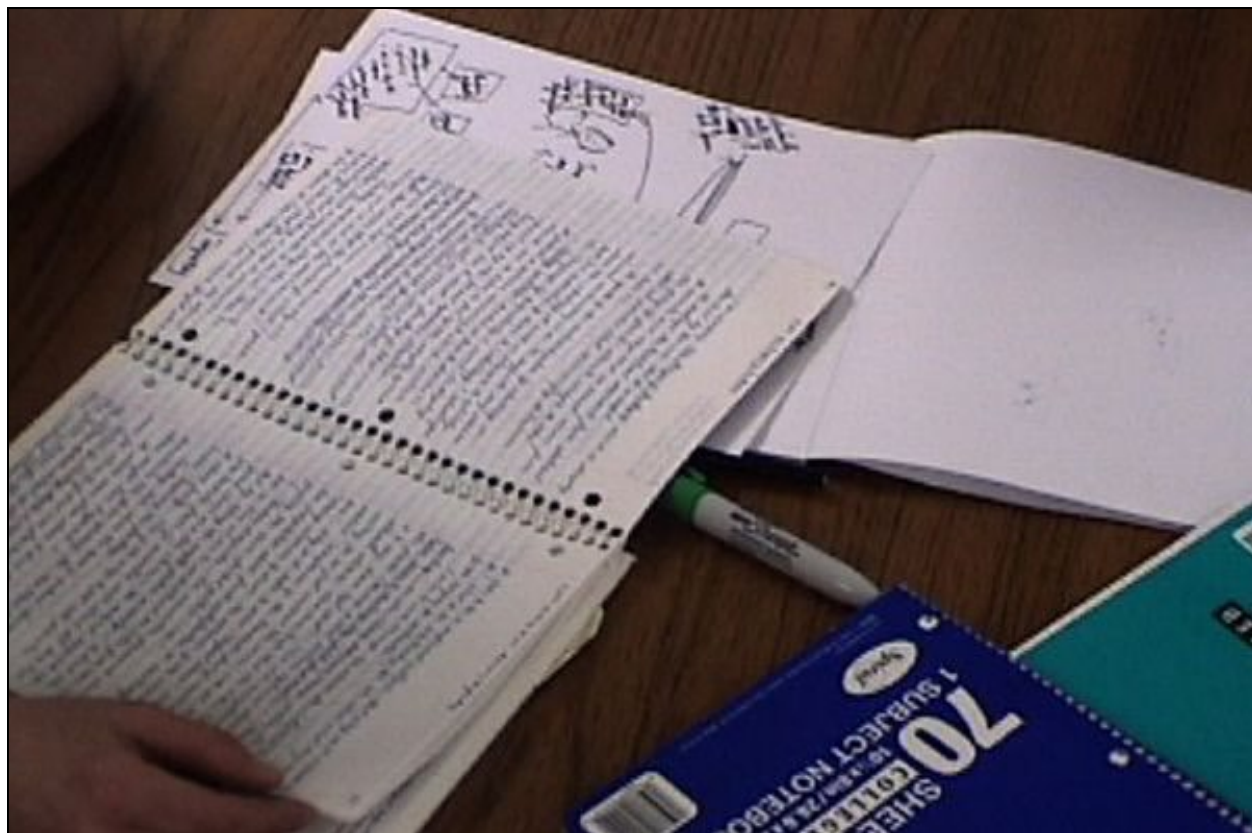Image 16. Orlie's drawing of the writing process

Image 17. One of Orlie's notebooks open to show her notes

Image 18. Orlie's marked, annotated and sticky-noted copy of *The Portable Nietzsche*

> and how this need implicates us in trespasses against others, specifically in processes that render others homeless. This claim is based upon observation, not speculation alone. Renting an apartment in a neighborhood undergoing gentrification was a constitutive experience for me and this book. When I moved into the then less-than-fashionable south end of Park Slope in Brooklyn, every building on my block was or was about to be in a state of renovation. But (don't tell my mother) crack sales and police sweeps were still the order of the day, and frequent auto break-ins infused capital into the underground economy. In 1991, when I left my Brooklyn neighborhood, the crack was pretty much gone, the buildings looked pretty, and the inhabitants of my apartment house were no longer elderly and working-class people of color but white upwardly mobile folks like myself. Progress? From one perspective, yes. But where did those other folks go? I have situations like this in mind when I speak in chapter 1 of a making from one perspective being an unmaking from another perspective. Good and harm are done simultaneously and in ways that perpetuate power relations that precede new activities. Such situations, manifest in the places we live, the food we eat, the clothes we wear, the other goods we use, and the activities we pursue, pose, I believe, the principal ethical and political challenges of our late modern time. (Orlie, 1997, pp. 2-3)

The remainder of Orlie's book focuses on the authors she is entering into dialogue with and on the issues she is pursuing. However, the quote above notes the way that specific embodied experiences may set an agenda that is then worked out in future texts (perhaps with no explicit mention of this precipitating context). It also illustrates the way chronotopic lamination melds together supposedly separate domains of life.

When asked how she felt about the project she was currently working on, she replied:

> Well, I really love this project. [laughs.] Um, it's, you know, other things get in the way of it. Um, I just, other projects—sometimes I've had to read things or do things that don't interest me or, you know, but this project is like, I mean all I have to do is read as much Emerson and Nietzsche and Freud as I can [laughs] and, and write about them and, and think about specific questions that I have in relation to them. And, and there's a way in which I am very clear that that's a lifelong project and, so, you know, I'm always both, trying to expand it but then also I can focus in on particular things, so, it, this is like a project I'm always wanting to get to and I really want to have the leisure to really dwell in it

For Orlie, questions about writing seemed hardly separable questions about life so pervasive were her literate practices.

The chains of invention and inscription these writers represented involved much private time. Each talked of hours of working alone, and each talked of specific practices of seeking solitude. Neuman said she did not write when her roommates were in the room. Johnson—uncharacteristically—closed his dorm door as he worked on this project because he wanted to concentrate. Kazmer described many hours sitting alone in front of the computer working on her prospectus. Orlie sought time alone and complained of the noise of the neighbors. Yet, this private time was never the whole story. Each reported seeking out other people for ideas and

support, often people who had no formal or official position in the writing process—friends, family, partners. Every one of the process drawings included representations of other people. Orlie talked extensively of how important her partner, Sam, was to her writing, as a knowledgeable critic who pushed her to clarify her arguments for her readers. Neuman told of friends at school and at home whom she talked with to get ideas for her list of values, for feedback on whether her idea would work in the class, and for encouragement to go forward with her plan. The figure of the instructor also appears at key junctures in her account of the process. In Kazmer's accounts, for example, we heard much of her advisor as well as her partner, both of whom were involved in working out content and in managing motivation. Writing in these cases then emerges as complex dispersed activity that is, across time and space, both intensely private and intensely social and collaborative.

Reflections on Chronotopic Lamination

These accounts raise a critical issue. How (theoretically, but especially methodologically) can we conceptualize and trace the dispersed, chronotopically laminated nature of acts of writing? How should we approach writing practices that are partially performed in private? While Writing Studies has learned how to look at interactional activity, at people responding to and co-planning texts in talk and text, it is not clear how to approach an individual sitting alone in a room and working on a text for hours. How can we trace chains of invention when prior experiences are recruited to present tasks or when writing tasks so suffuse the lifeworld that writing is occurring all over?

CHAT has acknowledged, if not always deeply, the fundamental heterogeneity of activity. Leont'ev's (1981, 1978) model of activity analytically distinguishes three levels: sociohistorically developed *activities* with their associated collective *motives*, individual *actions* driven by conscious *goals*, and equipped *operations* with *unconscious goals*. This model offers an analytical framework to decompose acts so that we can consider their heterochronicity (Hutchins, 1995) and their varied modes of being. Leont'ev (1978) asserted that activity is always multimotivational.

> ...activity necessarily becomes multimotivational, that is, it responds to two or more motives. After all, the actions of a man [sic] objectively always realize a certain collectiveness of relationships: toward society and toward the person himself. Thus, work activity is socially motivated but is directed also toward such motives as, let us say, material reward (p. 123).

A potential terminological and conceptual confusion arises in activity theory. *Activity* names the whole, but it also technically names one of the parts of the whole. Activity[1], the whole, is concrete historical practice, the total, the union and disunion of all the things going on; it is what is happening. Activity[2] is the analytical plane that pulls out the collective and motivated as opposed to action and operational levels. Activity[2] points to durable human life projects, like getting food, establishing shelter, creating social relations and institutions, providing for security, reproduction (literal and social), play—all immensely transformed and complicated by the

sociohistorical development of specific practices. (Consider the distance between gathering local plants to eat and the many networks of economic, political, technological and everyday activity that bring grapes from Chile to homes in the U.S. during winter.) Thus, when Leont'ev (1978) says that all activity is multimotivational, it signifies that activity[1] always involves multiple, co-present activity[2]'s.

However, Leont'ev sketches this multiplicity only in the most abstract sense (e.g., people working in a factory making products are also engaged in making social relations). We must also take into account that activity[2]'s, individuals' actions, and the operational ground of artifacts and tools trace historical trajectories and are all co-genetic (Cole, 1992, 1996; Holland & Cole, 1995, Prior, 1997, 1998), always developing in association with other activity[2]'s, actions, and artifacts. Cole (1996) explores the co-genesis or co-evolution of mind, brain, and society in his discussion of modularity, presenting an image of densely interlaced trajectories to represent "the interweaving of modular and contextual constraints which denies temporal priority to either and which provides for 'leakage' between modules in microgenetic time" (p. 216). The historical development of domains such as industry, labor or schooling is not insulated from the historical development of race and gender relations, for example. They are co-developing (and here, of course, development doesn't necessarily mean improvement). This is one of the reasons why gender, race, sexual orientation, nationality, religion, and so forth are not irrelevant to, say, scientific practice. They're always already there. Goffman (1981) suggested that people routinely hold multiple footings, operating with multiple frames co-present and holding particular stances toward those frames; we are suggesting here that it would be useful, as a corollary to seeing activity as laminated, to take up a notion of multiple activity[2] footings.

Engeström, Engeström, and Vahaaho (1999) suggest the notion of *knotworking* to refer to "rapidly pulsating, distributed and partially improvised orchestration of collaborative performance between otherwise loosely connected actors and activity systems" and the "pulsating movement of tying, untying, and retying together otherwise separate threads of activity" (p. 346). They describe knotworking as a new way in which work activity is being organized and performed. While we do not question the changing nature of the work practices they document, we would argue that the basic description of knotworking is, in fact, a mundane and longstanding practice, a part of the normal and routine management of multiple activity footings. In this sense (like the absence of visual and material semiotics from English instruction in high school and college), what is historically striking are the institutional practices that so foreground single activity systems and so codify and formalize practices that it appeared, at least from a certain perspective, that the work activity was ever a single, solid, and rule-governed phenomenon.

Writing Studies, with its focus on process, has in some ways been attuned to the complex structure of acts of writing, yet most studies of writing processes have focused on immediate, short-term actions and operations (as in the cognitive protocol studies, e.g., Flower & Hayes, 1984) or, when longer sequences of acts and scenes have been traced, have continued to live within the circumscribed space of some institutionally defined world, the school or the workplace in particular, thus attenuating the laminated character of dispersed action. Without a

theory of activity[1] that attends to the intersection of durable projects, individual goal-oriented acts, and the affordances of mediational means and that also acknowledges the fundamental heterogeneity (and hence lamination) of activity, studies of writing have typically continued to rely on ideologies that see writing as a general skill of transcription and on everyday mappings of the social world, which seem to suggest that a named social space is a bounded, definite object. LeFevre's (1987) reworking of the rhetoric of invention as social is striking for its break with these models. LeFevre considered ways that broad sociohistorical movements, individual collaborations, and various forms of support (even as simple as bringing coffee to a writer in the morning) all fit into the social bases of invention. Latour's work in science and technology studies (e.g., 1987, 1993, 1999) has also argued against living within institutionally defined domains. He proposes following actors and objects wherever they lead as they form fleeting and hardened networks. Russell (1997) sketches activity networks of biological genres, considering key discursive interfaces among a variety of activity systems. Bazerman's (1999) study of Edison's material-semiotic activity offers a fine-grained case study of what he calls *heterogeneous symbolic engineering*, a rhetorically inflected version of actor-network theory, wherein the electric light emerges as a collective project emerging out of a bed of multiple technological and scientific trajectories, linking laboratory practice to media manipulation, patent law to charismatic personality, corporate development to classed and gendered aesthetics. Kamberelis (2001; also Kamberelis & Scott, 1992) and Dyson (1997) provide detailed accounts of the profound heterogeneity and lamination of elementary school students' oral and written texts, especially of the way mass media characters, themes, and utterances are redeployed by kids in classrooms. Such studies suggest the promise of seeing writing as concrete, historical, laminated activity.

CHAT and Writing Studies must further address the chronotopic lamination (and hence co-genetic character) of activity systems and further develop ways of attending to chains or trajectories of activity[1] that are often ambiguous and fuzzy; that may be tied, untied, and retied; and that stretch across official cultural boundaries. Academic writing is one domain replete with such extended and fuzzy chains of invention and production.

Sense, Affect, Consciousness

> Thought has its origins in the motivating sphere of consciousness, a sphere that includes our inclinations and needs, our interests and impulses, and our affect and emotion. The affective and volitional tendency stand behind thought. Only here do we find the answer to the final "why" in the analysis of thinking. We have compared thought to a hovering cloud that gushes a shower of words. To extend this analogy, we must compare the motivation of thought to the wind that puts the cloud in motion. (Vygotsky, 1987, p. 282).

For Vygotsky, Voloshinov, Leont'ev, Bakhtin, Luria, and others operating in Russian traditions, a key semiotic and psychological distinction is captured by the terms meaning (*znachenie*) and sense (*smysl*).[8] Meaning refers to the conventional social sense of a word, like *table*, with its usual referents (the various types of furniture) and conventional metaphorical extensions (tabling

a motion in a meeting). Sense though refers to the individual's subjective and particular versions of *table*, where a particular history of experiences (direct and indirect) and associations with tables is registered. For example, *table* may be saturated with the experiences of a family that eats together at a table, a table laid chaotically and informally with paper plates and plastic cups and utensils or a table laid in strict conformity to some etiquette with bone china, silverware, and crystal, a table with affective colorations of warmth or intense conflict, with a specific set of roles linked perhaps to gender and age (who sets the table, prepares the food), with conversations that may be strained, personal, philosophic, or filled with news.[9] And of course, these tables then sit in houses in neighborhoods in worlds of a certain era, tables that register the impacts of personal and public tragedies and triumphs. Sense then is rooted in the chronotopic interface of the embodied and representational, the social and the personal. It foregrounds subjects' consciousness without making consciousness an asocial, neoplatonic realm. In fact, meaning becomes in this view simply a stabilized field of sense, centripetally formed by cultural-historical forces.

> Meanings do not have existence except as in the consciousness of concrete people. There is no independent kingdom of meanings, there is no platonic world of ideas…. Is it possible really for "nobody's concept" to exist? (Leont'ev, 1978, pp. 169-170)

When we look at writers' private processes, chains of invention, and accounts of affect and motivation, it is difficult to ignore sense, affect and consciousness, even if these terms carry us into contested terrain.

Each of the writers drew representations of, and talked about, interior worlds of sense and affect as fundamental elements of writing. Each talked of struggles to capture in externalized semiotic forms for other people what they were experiencing internally. Their accounts illustrate the power and pervasiveness of sense and affect in literate activity, the ways that worlds of writing are deeply woven through with personal experiences and sense against a background of affective and motivational forces.

Writers' Accounts of Sense, Affect, and Consciousness

Asked how she felt about writing, Orlie contrasted the productive intellectual working out of ideas (which she called the notational phase, dominated by reading, note-taking, and journal writing) with the need to communicate in academic fora (which she called the compositional phase).

> It's, um, it's something I enjoy a lot. I mean, writing in my note, notebook … I wouldn't go so far as to say I'm a journal writer like Emerson or someone like that, but there's really a sense of, um, a lot of the people I write about like Emerson or Nietzsche, you know, if it's, if it's writing as a daily practice and then drawing from that sort of notational system to compose something, I think that's how I work. So, and, when I'm in that notational process, I can often really enjoy that although, of course, then I reach a point where, you know, I'm frustrated because I need to get more compositional. And then, if

> I've got enough in the notational, then again, the compositional can also be …
> enjoyable and fulfilling, and I can feel like I'm, um, you know, I'm expressing
> myself. I'm always working through something, writing is very personal to
> me.

Orlie talked at varied points in the interview about, and represented in the bifurcated spaces of
her process drawing (see again, Image 16, above), the struggle to communicate her ideas clearly
and the critical responses she sometimes got from readers who didn't feel she had succeeded or
who failed to get her arguments.

Orlie talked about the struggle to move from her ideas to expression/communication, even as she
acknowledged—with a clear sense of contradiction and puzzlement—the difficulty of squaring
her experience as a writer with her theoretical commitments.

> Shipka: …I'm also wondering about that, that voice—you know, who are you
> editing for or to? Is it yourself—that it doesn't seem right to you? Do you
> think about, you know, Sam's influence, where it's all of a sudden, "okay,
> Sam will think this, so I'm going to catch myself" or is it—
>
> Orlie: I think it's—there's an abstract audience but it's so abstract that it
> can't really be present. It's much more about, um, it's about a relationship to
> myself, have-, you know, I have this experience—I don't think it's, you know,
> I don't think I could defend this conception because I don't think it fits my
> understanding, you know, of the mind—it's relationship to social reality and
> stuff like that—but I think that I, I write as if—my understanding of my
> process is something like I seem to think that I have something that I'm
> trying to say or that I see and it's inside. And you know I'm trying to say it
> really to myself. You know? So I don't know if I think it's a truth. I don't think
> I think that. I think it's a, a, you know what I (see and have to say), but I'm
> always amazed like, "Oh look at, there's a connection here," you know, it's
> like I'm bring-, **I'm mapping an internal world and sort of bringing it
> out, and sort of telling my truth, I mean, I think that's kind of silly,
> but I-, probably that, that seems to be how I understand what I'm
> doing**. [emphasis added]

What is striking here, besides her obvious (*that's kind of silly*) struggle to align theory and
experience in this domain, is the image she arrives at of "mapping an internal world and bringing
it out." This image suggests a kind of semiotic translation between an iconic, and still somewhat
unknown, interior world and a linguistic articulation that must be formed and externalized for
others to apprehend. Her sense of this expression as her truth, and of the fragility of its reception,
seems to echo Bakhtin's (1981) notion of internally persuasive discourses, which may be "denied
all privilege, backed up by no authority at all…not even acknowledged in society" (p. 342).

In his interview, Johnson described how he struggled to make the form of his text match up with
his sense of the message and to make his project personal in form as well as content.

> I just printed out and then the next big issue for me was, ah, how to present
> this because I didn't like handing in the paper after after I had done this—I
> didn't think a paper fit it at all and, ah, so, you know, how to present it…and

> then, ah, like I just got the idea when I was writing and putting a movie back in the case, I was like, [snaps] "Whoa, that's it." Um, and so, I knew I'd do something with all the different boxes and put something inside of them to represent what they meant to me as opposed to just the movie…. And, ah, so I had five movies then with five distinctly different lessons but it still wasn't, you know, it wasn't real personal—you wouldn't know anything about it until you looked inside each one, what they meant, and, so I kept having the problem, you know, how do I personalize it? How do I get something outside that, you know, this is me, inside is the movies and inside of that is that like, kind of a hierarchy of everything, and so, like, I just was looking for a movie one night, and as I was looking at the rack, I saw this box [referring to the cross-country video he made in high school] and I, you know, it's just one of those things that hits you, and you're like "that's it," and, so, you know, you come up with something to put around the box, to personalize it, I wanted my picture there and just several different things I wanted to be represented on the very outside of it. Like the cover. Um, and so I got the box put together. Um, then from there I handed that in, and that was my first draft and going back and revising it was a matter of going back to what I did in high school and putting it in as an actual movie adding the, ah, soundtrack…

Here then, Johnson explains how he moved from a conventional paper in which movies were content to a series of texts inside the boxed covers of the movies he was writing about, and then how he eventually ran across his own videotape of his cross-country experiences and added that to the whole package. Nor did the process have a sharp finalization for Johnson.

> …I don't want to roll the credits on it yet because it's, like, a real, a great project I've had—it's something that, like, every time I watch movies now or something I'll still equate things with that. And I always think about this project and, just different ways I could go off with it now. And I don't really have the opportunities now but, ah, it's something I'd like to go back and do more of the same sorts of things, so there's a, a second edition awaiting hopefully.

In the text of the paper he brought to the interview, Johnson speculated on why he was so drawn to, so taken with, film as a medium. In effect, his paper itself raised issues of sense and affect.

> Cross country represented some of my best times and my best friends from high school. And as captain of that team, I decided for all those that had run with me, and for myself, that I would make a cross country highlight/memory tape. This movie may have the most powerful effect, because not only does it represent four years of several of my fondest memory, but it also contains the actual memories, as **for the first time, the images on the screen seem to match perfectly the images streaming through my mind**. (emphasis added)

Johnson seems to be articulating the reality effect of film, an effect intensified here by his own strong sense (as a participant in the events) of the historical-material indexicality of the film. He also, however, seems to be celebrating the heightened coincidence between the full sensory experience of this production and the events as he personally remembers them. When Vygotsky (1987) discussed the infusion of sense, he gave as examples titles of literary works like *Dead*

Souls and *Hamlet*, which come to indexically signify the reader's experience of reading and reflecting on the works, perhaps across multiple occasions in a life. Johnson's paper was premised on this kind of infusion of sense and affect, though he chose whole films as his examples:

> It seems odd that at times where I miss my own mother I don't necessarily need to call her, but rather throw the movie *Entrapment*, the last movie we watched together prior to my leaving for school, in the player and the pain seems to subside. My VCR seems to become as important to me as any person down on campus has, for it knows all my memories, and seems to play them out perfectly each time, giving me exactly what I needed to see, even though that vision isn't necessarily embedded into the film.

Neuman's interview focused on the sharp tensions as her sense of her values as a work in progress and her word jumble as a creative expression of this view collided with the instructor's sense of the text as an evasion of commitment, an expression of uncertainty rather than resistance. Neuman was particularly upset that the time she spent and her attempt to approach the task seriously and with integrity went unrecognized, while classmates' insincere and perfunctory texts won praise and points.

Neuman explained how the task of articulating her core values into a mission statement offered her an opportunity to express her general resistance to the course material.

> Um, we have three basic books that we use, and the core values one is a book … called *Emotional Intelligence*, and, ah, I really don't like the readings, but I read them just because I want to know what's going on in class, and I usually tend to disagree with them, but, um, and, and this, this was also my way of, like, showing that I, I disapproved of the book's, um, way of talking about values because they were saying, it, it's like set in stone, and, I I didn't think that at all, so this was, like, and so, it was kind of exciting cause I could kind of, like, voice my opinion….

As for the explanatory page (see again Image 4, above), Neuman described its purpose in terms of anticipating potential misreadings by the instructor.

> I, actually, it took about, um, 15 seconds before I realized that I wanted to do this, so, cause I sent this and I'm like, "Oooh, I want to say why I chose these words," cause I didn't think that she'd be able to get it necessarily, like, she'd be like, "oh you value fury?" Like, "okay." So I wanted to put while, like, I said, while I shouldn't, while it shouldn't be valued, it often is. And I thought that she probably didn't—I didn't really do it for me but I did it because I didn't think she'd probably get it.

When asked why she enjoyed doing the word jumble, Neuman said, "I was just really proud because it was, ah, for me, like, it meant a lot."

Neuman was disappointed that the instructor neither got the point nor recognized her effort. Beyond the grade itself (2 out of 5), the instructor's comments on the content were negative.

> Um, well they give you feedback when they give you the, the grade for it.
> Um, she said that it was, um, nice but what did that mean about my values?
> Did it—I didn't answer the question for her, um, did it mean that I was
> adaptable, did it mean that I was changeable, like what, what does that mean
> about my values?

In contrast, when asked why she didn't bring her final mission statement to the interview, Neuman said: " I don't really, like, consider that, like, my, my mission statement, you know? I just, that's what I turned in because that's what I needed to do…." Describing the text, she elaborated:

> …you had to put in why it was a goal and how it related to your mission
> statement, so I just had really generic topics like love, determination and,
> like, um, family. I don't even—I don't remember what they were cause I don't
> really care, but um, and so I just had to take really general topics and try to
> put them into, like, a paper basically…

Yet in this case, the instructor's response was very positive.

> **Shipka:** What was, and what was her response to this version—when you got
> your grade back?

> **Neuman:** "Wonderful. Good job." Like, um, "I, I can see that you, that you,"
> like, as she sees it as, like, the class has helped me find my, my, goals. Or,
> not my goals but my values, and I don't see it as, like, ah, one class and, like,
> two weeks can make me suddenly find my values. So, I thought that was kind
> of bogus.

Neuman's story of her mission statement could be interpreted (again) as a conflict between internally persuasive and authoritative discourse in a dual sense. Her initial texts, which she believed in, could be read as internally persuasive discourse, whose sense seemed to evaporate in the instructor's reception. Likewise, her re-do of the assignment, which she felt as empty of sense and purpose and over which she disavowed any ownership, were lavished with praise and points. That text seemed to be considerably amplified in reception. However, such a reading seems problematic on two counts. First, unlike Bakhtin's (1981) assumption that internally persuasive and authoritative discourses represent some general social evaluation, we read Neuman's word jumble and list as creative and valuable texts. Of course, we also read her texts clued in to their import and to her intentions, contexts that the instructor did not seem to have available. Second, the gap here is not simply one of meaning, but also affect and effort. Neuman is pained by the instructor's lack of recognition of the sincerity of her first texts and of the time and care spent in doing the task and by the lack of recognition of the emptiness and disengagement of the re-do.

Kazmer's interview also pointed to communicative tensions, but highlighted the affective and motivational challenges that can block writers and even lead projects to be dropped. Narrating the process drawing, Kazmer described completing the first draft, getting written responses from her advisor, and then a scene so traumatic she had not even drawn it.

> I finally did get something that looked more like a workable draft—something on the order of thirty pages, I sent that to her [Kazmer's advisor] and she came back with a page of comments guiding me about what I should do next … and this cost me—when I first read it I was really, really happy. I was like, "Oh great! She read it, she understands where I'm trying to go, she's giving me specific things that I need to do to fix it. I know exactly what I need to do." When I sat down to try to implement this into this text, I actually wound up here again [Kazmer points to the image she drew of her sitting, not writing, in her apartment], but it was so much more traumatic that it's not even in the picture. This was me writing and this is me with all these bazillion drafts. And I just really—totally left this part out. Because this had me absolutely paralyzed for about two weeks. I mean, paralyzed. I sat in front of the computer and would cry. [Shipka: "the fact that you couldn't incorporate"] Yeah. [Shipka: "what she had sent."] I couldn't figure out how to incorporate and she's really busy and, and I had met with her once about it, face to face and I was just like, I was just like, "I can't do this. I can't go and talk to her again and I can't write this!" And I tried. I mean, I wrote all over this stuff! I wrote here what her notes are. She had notes in the document. I went back in and, and interpolated my own notes in the document, trying to figure out how to do all these things to this. It never, it never happened!

She went on then to describe how she got past this serious block.

> When I finally got started working again, it was not with this… It started out with this draft actually. But, not these comments… So, this is when I wound up splitting the thing into the multiple files and, and really sitting there and just trying to hash out—I mean I, I had all these techniques for getting yourself un-panicked and, and one of the things that worked was that this is me breaking up into the three files and the time with each one and the, and the continuing things and what really helped me was, um, just focusing on, like, a little tiny thing. like, okay, one thing I know I have to do with this is I have to go through it paragraph by paragraph and make it less chatty. Okay. I can do that. I can turn something that sounds chatty into something that sounds academic.

Interestingly, Kazmer found that changing the tone of the language revealed content issues she had not recognized.

> But what happened from there was that I started realizing whether there was content missing. Because when I flopped it from a chatty style where you can get away with saying things like bleah-bleah-blah blah blah and you try to turn it into very specific academic type writing you start to notice content missing. Well, that's okay. I can fill in missing content! OOH! And then, it's, then it started to go together!

Kazmer's tale of emotional upheavals and of strategies for recentering herself and her work points to the centrality of affect and motive in writing.

Reflections on Sense, Affect and Consciousness

Writers frequently articulate the experience that externalized utterances (oral, written, graphic) do not do justice to, do not fully express, the sense or tone that was intended. Expression then often produces a sharp, disturbing sense of loss and disorientation. Vygotsky (1987) pointed to some of the transitions that occur in expression.

> Thought does not consist of individual words like speech. I may want to express the thought that I saw a barefoot boy in a blue shirt running down the street today. I do not, however, see separately the boy, the shirt, the fact that the shirt was blue, the fact that the boy ran, the fact that the boy was without shoes. I see all this together in a unified act of thought. In speech, however, the thought is partitioned into separate words… What is contained simultaneously in thought unfolds sequentially in speech. Thought can be compared to a hovering cloud which gushes a shower of words. (p. 281)

Beyond the shift from a holistic and multi-sensory semiotic to a linear-verbal semiotic, there is also the question of the observer's feelings about the scene, questions of tone and evaluative orientation. Is the barefoot boy celebrating with abandon a beautiful summer day, evoking perhaps a complex mix of joy and nostalgia? Or is the barefoot boy a starving and ragged child running from soldiers and explosions, producing quite different emotions and motives for action? In any case, squeezed into an externalizable form something is lost, not only the holistic world of inner representation, but also a world that is embodied, affect rich, and deeply dialogic. At the same time, the externalized form adds to and amplifies certain meanings, producing resonances not intended or felt by the writer.

Bolter and Grusin (1999) present an extended series of reflections on media, new and old. They argue for the centrality of the notion of remediation (which we prefer to write as re-media-tion to keep it distinct from other potential readings of the word). Re-media-tion points to the ways representations move across media, the way for example a book may turn into a screenplay and storyboards into a movie and then a game and so on, a process that is in some cases termed re-purposing (as Brent Johnson re-purposed movies and the videotape boxes and ultimately his own text). Bolter and Grusin stress that re-media-tion is an on-going dialectal and nonlinear process, with old media shaping new media and vice versa and with old media continuing to be used after new media are developed. The range of media they are interested in ultimately may be suggested by a passage they cite from McLuhan (1994):

> The content of writing is speech, just as the written word is the content of print, and print is the content of the telegraph. If it is asked, "What is the content of speech?," it is necessary to say, "It is an actual process of thought, which is itself nonverbal." An abstract painting represents direct manifestation of creative thought processes as they might appear in computer designs. What we are considering here, however, are the psychic and social consequences of the designs or patterns as they amplify or accelerate existing processes. For the "message" of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs. The railway did not introduce movement or transportation or wheel or road into human society, but it accelerated and enlarged the scale of previous human

> functions, creating totally new kinds of cities and new kinds of work and leisure. (p. 8)

McLuhan's comments are interesting in two senses. First, they suggest media theory's many resonances with CHAT accounts of mediational means. McLuhan's analogy of the railway echoes Vygotsky's argument that mastery of new material and psychological tools leads to a functional reorganization of elementary processes that may have revolutionary consequences. Second, McLuhan signals his willingness to move beyond new media into those primordial human media: perception, thought, and spoken language. Although Bolter and Grusin do not treat these media (coming closest when they discuss how new media are re-media-ting identities), we believe that the notion of re-media-tion may help to frame some key issues that many writers have noted, the struggle and sense of loss in expression. Vygotsky treated this issue in his discussions of interiorization and externalization, suggesting that he saw an internal multi-sensory and sense-laden semiotic medium of thought, which is reorganized by and infused with, but never replaced or totally dominated by, inner speech, which in turn has to be re-media-ted again when externalized. Vygotsky (1987) made these observations about relations among thought, inner speech, and external utterance.

> External speech is not inner speech plus sound any more than inner speech is external speech minus sound. The transition from inner to external speech is complex and dynamic…. External speech is a process that involves the transformation of thought into word, that involves the materialization and objectivization of thought. Inner speech involves the reverse process, a process that moves from without to within. Inner speech involves the evaporation of speech into thought. (p. 280)

This image of internalization and externalization as re-media-tions can also be related to Hutchins's (1995) views of distributed cognition as the transformative "propagation of representational state across representational media" (p. 118), each of which, including human minds, have particular properties as media.

Voloshinov (1973) presents a similar view of utterance, wherein inner speech and inner genre are continuous with externalized speech and genre. Discussing the effects of expression on experience and experience on expression, Voloshinov suggests:

> The claim can be made that it is a matter not so much of expression accommodating itself to our inner world but rather of our inner world accommodating itself to the potentialities of our expression, its possible routes and directions. … We shall use the term behavioral ideology for the whole aggregate of life experiences and the outward expressions directly connected with them. Behavioral ideology is that atmosphere of unsystematized and unfixed inner and outer speech which endows our every instance of behavior and action and our every "conscious" state with meaning. (p. 91)

Voloshinov sees established ideological systems such as religion, science, and law as "crystallizations of behavioral ideology" (p. 91). He also suggests that there are different strata of

behavioral ideology, ranging from the lowest, most fluid, quickly changing, and erratic that finds little or no support in social expression to the upper strata, most closely linked to ideological systems. Voloshinov saw these upper strata as the most intense interface of the person and the social, an interface where novel, creative, and radical energies might emerge that change established ideological systems, but also as the strata that most fully and deeply incorporate and are influenced by existing ideological systems.

In the course of discussing creative individuality, Voloshinov offers a striking statement of how semiotic re-media-tions relate to the on-going production of individuals and social formations.

> What usually is called "creative individuality" is nothing but the expression of a person's basic, firmly grounded, and consistent line of social orientation. This concerns primarily the uppermost, fully structured strata of inner speech (behavioral ideology), each of whose terms and intonations have gone through the stage of expression and have, so to speak, passed the test of expression. Thus what is involved here are words, intonations, and inner-word gestures that have undergone the experience of outward expression on a more or less ample social scale and have acquired, as it were, a high social polish and luster by the effect of reactions and responses, resistance and support, on the part of the social audience. (p. 93)

For Voloshinov as for Vygotsky, human sense, affect, motivation, and consciousness are fundamentally sociocultural phenomena, but never transparent and mechanical.

> …not even the simplest, dimmest apprehension of a feeling—say, the feeling hunger not outwardly expressed—can dispense with some kind of ideological form. Any apprehension, after all, must have inner speech, inner intonation, and the rudiments of inner style: one can apprehend one's hunger apologetically, irritably, angrily, indignantly, etc. We have indicated, of course, only the grosser, more egregious directions that inner intonation may take; actually, there is an extremely subtle and complex set of possibilities for intoning experience. (p. 87)

Affect, motivation, and evaluative stance are as central to sense and consciousness as specific referential experiences. However, it is worth asking if sense has been at the center of CHAT or for that matter, Writing Studies.

There have been studies of writing processes and writers (e.g., Emig, 1971; Brodkey, 1987; Chiseri-Strater, 1991; Herrington & Curtis, 2000; Brandt, 2001; Casanave, 2002) that have addressed questions of sense and affect in some fashion. However, the dominant approaches have focused on textual practices and contextual perceptions and have generally stayed within the bounds of some institutionalized scene (writing at school, writing at work). Think-aloud protocols could have given us not so much a window into inner speech and thought, but a dialogic threshold at which explorations of sense could have commenced (see Prior, 2001). Instead, this threshold was quickly boarded up and buried with boxes of cognitive operations and issues, in effect, of meaning. Geisler (1994) reports a case where sense broke through this boarding up because one participant's affectively charged inner dialogues dominated her

protocols. However, Geisler interpreted this eruption of sense as an absence of dialogue with the assigned sources of the research task, as a mark of egocentric thought and novice disciplinary expertise.

Although Vygotsky and Voloshinov were clearly concerned with sense, affect, consciousness, and personality, with these semiotic processes of translation, CHAT has subsequently tended to steer away from these issues, focusing instead on specific psychological systems (like memory, classification, and reasoning) or on social practices (typically the ontogenesis of the practice or its structure in systems of activity). Discussions of sense and affect (as in Vygotsky 1987) have tended to be marked by a shift to literary discourses (e.g., Engeström, 1987) or to the genre of hypothetical *someone* stories[10] as in Leont'ev's (1981, 1978) students studying for an exam or collective hunters. Valsiner (1998) suggests an alternative methodological approach as he turns to personality psychology and anthropology, with their detailed case studies of particular individuals (especially in the former) and triangulated delineations of collective subjects (especially in the latter). Indeed, CHAT-oriented anthropological studies (e.g., Holland, Lachicotte, Skinner, & Cain, 1998) offer explorations of sense and affect in individuals as a way to build understandings of collective subjects and their arenas of activity. Similar methods are visible in John-Steiner's (1997, 2000) studies of creativity, as she takes a very holistic view of the creative person, drawing together anecdotes, artifacts, and interviews. Her studies also emphasize the struggle to move from condensed forms of inner speech and other inner modes of representation to externalized communication of those thoughts, emotions, images, sounds, movements, and objects in varied creative endeavors. She highlights as well the complex chains of acts that are woven together in creative production and the oscillation between intense collaboration with others and work in solitude.

In concluding his final work, Vygotsky (1987) made the famous statement (quoted above) that has been taken up as a call for activity theory, as Leont'ev and others sought to describe those affective and motivational spheres of consciousness. However, reflecting on the complex relations of thought and language, Vygotsky also concluded that "only an historical psychology, only an historical theory of inner speech, has the capacity to lead us to a correct understanding of this complex and extraordinary problem" (p. 284) and that his own investigations had "brought us to the threshold of a problem that is broader, more powerful, and still more extraordinary than the problem of thinking…to the threshold of the problem of consciousness" (p. 285).

Here again, CHAT and Writing Studies alike need to further develop approaches that attend to sense, affect and consciousness, especially ones that trace the active commerce between individual and collective subjects and that integrate studies of psychological systems and activity systems with the study of particular persons-in-practice. Finally, any study of sense, affect, and consciousness must be sensitive to chronotopic lamination, to the interanimation of the many concrete and figured (Holland et al., 1998) worlds that subjects have available to them at every moment. The problem of consciousness in this perspective is not a question of identifying the operation of some transcendent mentality, but rather of defining some very human, very mundane ways of being in the world. In the next section of this paper, we examine a key

intersection of consciousness and chronotopic lamination in literate practices oriented to regulating attention, affect, motivation, and sense/meaning.

Tuning Consciousness through Selecting and Structuring Environments

> The dictates of the environment on consciousness frequently lead us to "isolate ourselves" in order to avoid interfering with "interior life." It is as though we were attempting to avoid the "outside semiotics" interfering with the "inside semiotics." Mostly, however, what we do in attempting to isolate ourselves is to situate ourselves in an external environment that is in tune with the mental state we want to attain. This search for being in tune is no coincidence. The outside semiotics and the inside semiotics are parts of the same system. (del Rio and Alvarez, 1995a, p. 394)

The formation of consciousness has generally been discussed as the durable equipping of mind with the legacy of cultural tools and practices. Del Rio and Alvarez (1995a, 1995b, also Alvarez & del Rio, 1999), for example, have talked of the fabrication of sociohistorical architectures for mind and agency, but what of the production of more fleeting ambiences, perhaps an interior decorating or a *feng sui* of the mind? Sensory deprivation experiments are one index of this constant (re)tuning, this on-going production of consciousness. Studies (e.g., see Soloman et al., 1965; Barabasz & Barabasz, 1993) have repeatedly found profound alterations in consciousness when sensory input is either radically decreased or frozen into a uniform, unchanging pattern. Paradoxically then stabilization of consciousness is grounded in (certain types and levels of) destabilization in perception and attention. Consciousness itself is, thus, shown to be fundamentally distributed; furthermore, it involves people's active practices of stabilization and destabilization, of seeking and managing order and change. In our interviews, we found a recurrent theme: the writers' environment-selecting and -structuring practices (ESSP's), the intentional deployment of external aids and actors to shape, stabilize, and direct consciousness in service of the task at hand. Del Rio and Alvarez's comments (quoted above) about tuning consciousness may be seen as part of the broader processes of dynamic, interactive stabilization of human and material agencies that Pickering (1995) also refers to as tuning. In effect, these findings extend our analysis from looking at the fact of chronotopic lamination to looking at on-going processes of chronotopic production.

Writers' Accounts of Tuning Consciousness through ESSP's

In her interview, Neuman explained that she did much of the work on her values mission statement in her apartment. She indicated that she worked alone (when her roommates were elsewhere) and with the TV off. She surrounded herself with key resources for this task (dictionary, thesaurus, paper, the computer). Also central for this task was seeking out others to talk to about her ideas.

> I knew what I wanted to do and I started doing it, like, right in class and then I started, like, telling everybody about it, and they were, like, "You shouldn't do that," "You're not going to get a good grade." And so then I went back to my place and I, I worked on it, and I called a couple of people and some told me no but then my friends back home [said] to go for it and they gave me a couple of ideas…so, I wound up calling actually a lot of my friends back home and, like, just asking them, like, what values they had, they have as well as what other values other, they think other people value, and then incorporated that….

Neuman sought out friends who would not only help her to generate a diverse list of values, but who would also help sustain her motivation. When her classmates told her the word jumble was inefficient and would not be graded well, she sought out friends from home, other voices, who would shore up her courage. Her account then displays intentional structuring of the social as well as the physical and symbolic environment. Seeking out particular social interactions was, in fact, a common feature for all four writers.

Johnson worked on the first draft in his dorm room, where he could watch movies, take notes, talk to his roommate, call family and friends, and write at his computer. Using the affordances of his room, he drafted extensively: "Every time I'd do something different, I'd print it out and look at it, see what I think about that, go back, do the same thing, it's sort of a cycle in there." He also scheduled his work: "I hated working during the day so I [drew] a window with lots of black in it cause I always [worked] on it at night." To avoid distractions, he kept his dorm room door closed, something he didn't always do, even when he was doing school work: "Usually the door is open but wherever I sat down to do that it was one of those things where you kind of close yourself off from everything else that goes around there as opposed with other homework." Like Neuman, while he avoided certain interactions (people in his dorm), he also sought out other interactions with people (family and high school friends) who could support his work. In particular, Johnson sought to draw on others' memories to supplement and trigger his own: "I'd call my parents if I was doing it on something on the past that involved them, calling friends if it was something I'd done with them and just kind of get things going through in my head." He also liked to work with his roommate because his roommate was a high school friend:

> We'd watch the movies together, and as I was taking my notes for, you know, what I was thinking about particular things and stuff that involved him directly, and some of the things he could help me with like, he'd always help me while I'm taking my notes, you know, running through ideas. You know, how was this? How was that? You know, when we did this, you know, what did we do then?

Tuning for memory was also an issue Johnson brought up as he reflected on what music he listened to during this process.

> **Shipka:** Um, in this space, what kind of music would you listen to when you were working on-

Johnson: I was trying to think of that and I don't, offhand, remember—just, like pretty standard. Like the stuff I normally listen to, you know, whatever you'd hear on the radio, songs I'd download—nothing that, I don't remember if any of it had particular meaning. Like when I'd work on the cross-country portion of stuff, I'd always play stuff from that soundtrack just because, you know, it gets you in the mood. It reminds you of this and that. And, like, cross-country was the biggest one, like, with my friends, like I'd also listen to the genre of music that we'd listen to, like, they listen to a lot of rap music and just other things and, so, different things I'd associate with them. Like, I'd try and just, you know, get in that sort of an air or whatever and then cross-country had its own songs and, so, for that portion, do that sort of thing and just as much as I could, try and get back the feelings that you have when you're actually there.

At first, he recalled nothing specific about the music he had listened to, starting to give a generic answer, but then recalled listening to the cross-country soundtrack. At that point, he pointed to ways that he used music as a trigger to get back into the atmosphere and feelings of the past experiences he was writing about.

When asked about whether he had strong experiences of "getting it" or of getting frustrated during the writing, Johnson recounted this story of how his review of his videotapes led to a significant resource and, in effect, a major revision of his project.

Originally, I hadn't decided to use the cross-country video. And then, um, cause I had—that's in its own little case, you know, it's not like one of those regular movies where you're looking through—"okay, it's this, this and this." And when I realized, one night, "Whoa, I've got this down here." I watched that, and that opened up all sorts of things and just got my mind working in different ways…like the cross-country video was the big thing that, said that, you know, this is a representation of me learning, like everything I learned throughout cross-country and, you know, what that meant to me and that was an actual, like, basically, it was a lot like the assignment—already completed.

ESSP's include the goal-oriented searches of already structured environments that are made during inquiry, the structured reading, observing, and making that people engage in, sometimes with serendipitous results. Johnson was reviewing his movie collection and watching movies to write his paper, but along the way he found another movie, the one he'd made about his cross-country experiences, and that movie then became the core of his project.

For Orlie, structuring the environment was a major and explicit part of the writing process. Furnishing and organizing her office was a matter she clearly paid attention to: she reported periodically reorganizing it as well. In fact, at the time of the interview, she was planning to move out of the city into a country setting to create conditions even more conducive to concentrated reading and writing. As she described her office, she noted:

There aren't kids in the house and so, ah, but neighbors. I don't like (noise) which is why it's important to have an air conditioner [laughs] so you can close it up. And that's one of the reasons I'm moving to the country, is cause

> I'm tired of noise. Um, so, then I have two desks. This is a, um, an actually, this is an old school desk and I don't sit at this desk. I did for a while and I couldn't write because my legs were confined. So, I brought back my old computer table, which is a very open and, in fact, I even have the legs configured in such a way that I can really just sit in a really relaxed manner. And I, this is a fairly clean space, with my computer, room for papers and books. Um, there's little plants there, candle which I often light, incense, another little Buddha. Usually, there's a cup of black tea. [laughs] And then over here, there's a reading table that had—I can't remember what it's called but—oh, it has, it's like an editor's table. Ah, sometimes I read on that— sometimes I'll edit on that.

Orlie's descriptions not only detail the furnishing of the space (desks, chairs, an air conditioner, books, a computer, a Buddha, plants), [11] but also point to ambiences (a candle lit, incense burning) and bodily practices (a stimulating cup of black tea to drink).

Like Johnson, Orlie reported structuring time as well as place, though her motives and the preferred time of day for work were quite different.

> And I think that writing has to be daily practice. I constantly have to be thinking about these projects. I try to get up at five—you know that, that's my ideal, I mean the way I master it is I get up at five a.m. and I try to work, ah, until my partner gets up and she wants me to pay attention to her … I've done that since I was an undergraduate that, you know, the way to get work done is to get up at five o'clock in the morning and work until eight before, you know, and then you've at least got a few hours, um, you know, where people can't bother you anymore.

ESSP's involve not only setting up a context, but also the ways the writer inhabits and acts in the space. As Orlie talked about how she inhabits her office as she works, she quickly shifted to broader questions of structuring her ways of being and acting in the world.

> **Shipka:** And what about intrusions in this space? Like, for instance, if you sit down and say you're aiming for four hours of work that day. Would you do two, leave, come back or is it pretty much, "I stay in this space, work"?
>
> **Orlie:** No. I, I get up and move around a lot. I think, um, I mean since, you know, post-tenure has really made a difference. When I was, when I was working to get tenure and finish my book, I had, I wore a, a watch that had a timer and I would set it for an hour and a half and, you know, I would try to sit there for an hour and a half. And then I was working, you know, I'd need four of those a day or whatever at the very least. Um, and I would try in that time not to go to the bathroom, not get a drink or, or not- no, that's not true, I'd get a drink, go to the bathroom. There's other activities now that I haven't represented on this other page. It's like I can't do other activities like, more like, I guess, the answer to your question is this: Maybe I'd work for an hour and a half, and then I'd do the wash or work in the garden or I'd go to the grocery store. And, um, it's very important to me, I don't see the tending to my life as an interruption. Um, from the time, I remember it from being reading Marx as an undergraduate that I had this whole sense of, you need a really broad definition of work. And that the, **the conditions of work, you**

> **know, having good food, having the garden watered—all those things
> are about creating a sense of well-being for me so that I can work,
> and I don't consider them things not, you know, not to do, um,
> they're actually part of the process and I have to create time for
> them.** [Emphasis added.] But I once had a colleague drive by, ah, who also
> didn't have tenure who said, you know, "How do you have time to work in
> your yard, [laughs] you know, when your book's not done?" And I'm like, you
> know, "I have to work on my yard so I'll get my book done." And, you know,
> at that time it felt like it was a wager, you know, maybe I was wrong, maybe
> I was wasting time, but my sense was that I had to take care of myself in, in
> all these different ways in order to be able to work.

Later in the interview, Orlie returned to the wager she'd made, to the relationship between her writing and other life activities:

> I did get my book done and I have finished other things and, um, still was
> able to, you know, I created this really great yard at my house, and you know
> that was because I spent, you know, entire Saturdays, you know, instead of
> writing, working in the yard and that's just what I needed to do. Ah, and
> there really is I think—I guess I really ultimately do revert to fairly organic
> metaphors that, um, there are periods of gestation and, you know, periods
> when things are really sprouting and just, you know, express a lot and then,
> um—and then sometimes you just need to get things set up, you know,
> where are you going to live? How much you going to get paid, you know, all
> that stuff and once that stuff gets in place, then I'm generally able to, um, to
> work

In these comments, Orlie touches not only on the value of other activities as a break, a period of inventional gestation, but also as material, affective, and motivational context-building, creating the conditions that would best serve her tasks of concentrated thought and writing. We should stress here that our argument is not that some ideal general conditions exist. For a quite different version of ideal conditions, see the *Paris Review* interview (Plimpton, 1976) with Jack Kerouac, who sought out intense, wild, even dangerous events and people as a resource for his writing and who reported writing some of his best work in extreme conditions.

While seeking isolation in her composing, Orlie also sought out and relied heavily on her partner, Sam, as a respondent. She felt her book might have been more successful had she not written it in relative isolation, had Sam been around then to respond so intensively to her work. Orlie noted that she was "bad for trees" as she printed out and revised draft after draft of her current essays before eventually passing the drafts on to Sam, who she described, laughing but seriously, as "the greatest invention in my life in terms of writing." Describing herself as someone with lots of big, but chaotic ideas, she found that Sam could identify the logic of her argument and really help her bring that logic to the fore, to organize her texts and reshape her sentences so that readers might more easily get the point.

Asked about why some of the journals she brought to the interview were indexed, Orlie described how in her notational, journal-writing, text-marking practices (see again Image 17 and Image 18, above) she employed elaborate strategies to organize these external textual memories.

> Well, I think I need them. Particularly for—I don't need them for, like these…. This is the Nietzsche text and commentary, this is, um, this is like a general journal but for the Nietzsche essays and book, so I need less of an index here cause it's really everything having to do with this process. And this is more, you know, my notebook from, you know, June 23, 1999, um to um, you know, to the present. And like I said, notice like I, I'm just writing here a lot less. Um, because I'm, I'm writing in some other notebook. But I'll come back again to um, probably to having another notebook like this. But this is become more my daily notebook. But this notebook that is, you know, a notebook I'm writing in everyday about everything, you know, a project on commodity consumption, Nietzsche, whatever. Um, I need an index. You notice sometimes—well, I don't know if I was doing it here—I've gone back to having, uh, notebooks for particular figures because I was losing stuff so I had the notebook I think that preceded this one that, um, well like here, I'm reading [inaudible] but I have another notebook, like, you know, I did a reading of Freud's um "Mourning and Melancholia." But then, you know, I also thought I cannot put that in my daily notebook cause I'll lose it so I returned to something I had done, um, at a younger stage where I had a notebook for [inaudible] and so now I've got my Freud notebook. But it's kind of funny cause I was, I have the little Princeton notebooks, from 1986, my notebook on Hobbes or something like that. Um and so that's how I'm keeping more control of the material. But for these daily ones I sort of need more index. But I don't do it consistently.

Orlie reflects on notebooks tailored to particular figures (a key part of her approach to political science being extended engagements with particular people, Nietzsche, Freud, Hobbes, Arendt, etc.) or to particular projects (like her reading of Freud's essay) as well as a daily journal with diverse content. She also noted ways she carried these practices over into electronic environments:

> And the other thing is, I guess, I would say that on my computer there's something parallel to this. This is something I learned when I was writing my first book, um, that I would, I have for every chapter, I had, ah, a file that was called "notes," and they were all dated and each day—cause there's obviously something in terms of my feeling like I'm getting somewhere or, like, I'm doing what I'm supposed to be doing that, you know—so, just each day I'd have a file. And, often, in that file, you know, there might be five pages of writing that I then just cut and paste and put right into a chapter but somehow I needed that representation.

The production and use of certain textual artifacts represents one type of ESSP.

Another extended, being-in-the-world practice for Orlie was her walking, particularly in tune with the essay she was working on, about walking.

> I usually go walking every morning, ah, now that my partner's living here or when I Santa Cruz [inaudible] we'd walk sometimes short, like, in the forest nearby or sometimes, like today, we went to Mahomet. And, um, with my dogs and—I consider this part of the writing process, well, particularly since I'm working on an essay on walking, I really can make it part of the writing process then, um, but there's just something about—sometimes I'm dri—on,

> like I say, here—sometimes I'm thinking explicitly about work and, and so is Sam and so we're not talking. Cause we're each just thinking about our own things. Sometimes we'll have a conversation about her project or mine. Um, but, often, you know, there's just, I think, you know, I'm working on it implicitly or less consciously, I'm preparing to be able to work…but I guess, particularly when I walked alone, um, you know, it was just—it gets me out of myself, in a way that you need to be out of yourself to write. Like, out of, um—cause one of the things I'm writing about in this project is the different, different manners of experiencing oneself and different manners of thinking and a form of thinking that is about kind of having experience and opening yourself to experience or having insight and then, you know, in contrast to sort of the neurotic, you know, sort of ego constantly circling, ah, around things. And, you know, both those things can happen in walking. But what I try to do is, is more of walking meditation, not necessarily slowly, but, you know, the point is to experience each step, to experience the environment, not to be in my mind, okay, so I think what I was saying is that the point of walking is not to be in my mind in that obsessive way but to get out of that, but that's not, you know—as Thoreau says—that's not necessarily easy to do, you find yourself walking and you realize you're obsessing about the day rather than actually experiencing the walk…

Just as Orlie has different books for different purposes, she also has different practices of walking, from walking with Sam and talking about ideas in a specific text she is writing to walking alone and striving to be mindful of the environment and her movement. (For another interesting discussion of walking as an embodied practice in writing, see Syverson's, 1999, account of Reznikoff's composing processes.)

Like Orlie and the psychology professor mentioned in the introduction, Kazmer described using a timer to regulate her writing. As she was describing her drawing, Kazmer noted:

> The only reason I go in [in the kitchen] is that I use my microwave oven—the kitchen timer on my microwave oven—as a timer. I'm one of those people who has trouble working and after I read, you know, [inaudible] article about how to make yourself work and and setting a time and what have you, so that's the alarm and the little alarm sound there.

Kazmer reported that she set the timer in two-hour intervals, which she might repeat two or even three times a day. She identified these periods as "bottom on the seat" time, intervals, where she sits and only works on her writing.[12] She also reported a process where she constantly moved from screen to print text: " The reason why I have the printer marked so heavily is that I'm one of those people who likes to print a lot. You know, I write a little bit and then I print and I scribble on it and then I type some more." Here again, it is important to see these writing practices not only as the production of a built symbolic environment, but also as regulated patterns of action and attention.

Kazmer also noted ways that she worked to optimize her work through scheduling her writing, including a fascinating example of social facilitation:

> I need to work in the late morning and early afternoon. And I tend to—both of
> us tend to be very productive if we're both here. We work with our backs to
> each other so that we're not constantly distracted. But I find that the sound of
> him typing really motivates me. You know? If he's getting work done, I can
> get work done too and he finds that same thing. But he was coming home
> from work at three o'clock in the afternoon, which is my complete downtime.
> Three to six for me is useless. I mean, I can't do anything and it wasn't
> working. So, um, what he's started doing now is going to work in the morning
> really early when I go to the gym. When I come home from the gym, find
> some food, grab a shower. When I'm done with that, basically, he comes
> home from work at 10:30 or 11:00 in the morning and we work until about
> two, um, and then he goes back to work and I kind of wrap up what I'm doing
> and then take that time from three to six to run errands and do other kinds of
> stuff that doesn't take too much thought. And then we tend to back to this
> then in the evening for a few hours.

Coordinated scheduling for writing time in this case really amounted to a much broader
structuring of her and her fiancé's ways of doing housework, exercise, meals, and paid
employment.

Like Orlie, Kazmer also reported using notebooks as a key external resource and practice:

> Those are what I have with me so that—because you know people are always
> catching you. Your advisor catches you in the hall, or you run into a professor
> somewhere in another building or what have you, and they're like, "Oh, I was
> thinking about you the other day! I read this thing and you should--" What do
> you do? And these are also helpful too because they kind of go around with
> me everywhere, so if I think of an idea somewhere else I can write it down.

Kazmer reported that she liked the notebooks with the sewn backing because they made it hard
to tear sheets out and thus lose track of things. Like Orlie, she was clearly interested in ensuring
the accessibility of her notes, with not losing things. However, as is clear from the earlier quote
about notebooks, Kazmer also used the notebooks for many purposes, from scheduling and
planning to use as a prop in face-to-face interactions (i.e., she reported that she used writing in
the notebook to give herself time to formulate answers during her oral preliminary examination).

Describing characteristics that she had found important for her writing, Kazmer again focused on
many ambient environmental factors—noise, lighting, music.

> **Kazmer:** This place [speaking of the apartment] is always very quiet. I
> occasionally listen to the Benedictine Monks chant on CDs when I'm writing.
> Um, because I find that sometimes—more detail than you needed—I was
> raised Catholic, sometimes I find that the chant does actually help me focus
> in on something rather than not. Like, I don't use it as a distraction or what
> have you. I actually use it cause sometimes it really does help me focus
> down. …I live up in, um a neighborhood that tends to be a little noisy during
> the day—I live close to Central High School—um, and like I said, across from
> park … So especially like now when I have all the windows wide open, it can
> be kind of noisy and when the high school band is practicing in the park,
> forget it. I actually can't work there. And I was also made very crabby by the

>   fact that there was—used to be a coffee shop in downtown Champaign where
>   I actually could work. Um, I can't work at Kopi. There used to be a place
>   called Jitters and Rush, which was an environment in which I could work, and
>   that closed. And that actually really changed the dynamic here because it
>   used be that I could be here and write but if I needed to read, there was
>   someplace within walking distance where I could drink coffee while I read.
>   And now there isn't anymore. Um,
>
>   **Shipka:** Why can't you work at Kopi? What's the difference?
>
>   **Kazmer:** It's dark! It's little and it's dark and Jitters and Rush was big and
>   bright and wonderful! And so if I want, if I want to read, I have to really think
>   about where I'm going to go. Do I go to the Champaign Public Library, which
>   is fine except that you can't eat or drink there, you know? Reading's hard
>   now.

Clearly too, Kazmer sought out different kinds of environments for writing (the private space of apartments) and reading (some public space, preferably with coffee).

The specific strategies writers reported were varied, depending on their tasks, the centrality of writing to their lives and work, and their own personalities and preferred practices. Neuman's task was most like a canonical class assignment, a bounded literacy event that lasted about two weeks, and her strategies seem the easiest to describe. She worked in certain spaces, sought out social interactions for ideas and support, and arranged her space with the resources she needed at hand—including not only the dictionary, thesaurus, pens, paper, and computer, but also the globe as a mnemonic device, an iconic reminder of the diversity of cultural value she was seeking to invoke. Johnson's task, while also a course assignment and involving a similar range of ESSP's, expanded as it aligned with past, leading to recruitment of past experiences and especially to a variety of ways to not only tap external memories, but also to trigger internal memories and moods. The chronotopic boundaries of Johnson's task, especially in the representational dimensions, were thus much broader.

Kazmer and Orlie, both of whom are engaged in focused academic lives in the disciplines of their choosing, engaged in writing that spanned months, years, and (for Orlie) decades. They describe ESSP's that amount to the delicate ordering of their lives around literate activity. ESSP's involved the structuring of their work conditions as well as their days, their long-term relationships with partners as well as focal interactions with others over texts.

Reading across these cases, we find elements in common for two or more writers, with elements as specific as the use of timers or a chronological journal, or as general as using music or structuring the time of day for work. Yet we are also struck by the very particular atmospheres, tones, and practices of each account. Orlie's indexed chronological notebook is, for example, much more focused on intellectual content and much more a textual source for subsequent public texts than Kazmer's journals. Neuman and Johnson both engaged in repurposing other genres for a classroom task, but Johnson's repurposing was officially sanctioned and better received than Neuman's. In addition, Johnson's multiple uses of film—as resource for invention, as content of

the text, and finally as medium—aligned with his long-term interests and practices while Neuman's word jumble did not display either clear roots or futures.

Reflections on Tuning Consciousness

ESSP's, the ways writers tune their environments and get in tune with them, the ways they work to build durable and fleeting contexts for their work, are central practices in literate activity. They call for attention to the agency of actors, to the production of environments, and finally to consciousness itself as a historied practice. CHAT has tended not to address these questions in its research. It has often treated tools and toolkits as givens, as cultural inheritances, as black boxes (Latour, 1987) that people use or fail to use depending on their learning, the current interaction, and their own preferences. The genesis of cultural forms has received limited attention (see however, Bazerman, 1988; Berkenkotter, 2001; Engeström & Escalante, 1995; Hutchins, 1995; Wertsch, 1995, 1998). Perhaps because of concentrating so heavily on learning/development in children, asking primarily how children become enculturated, how they encounter and develop some mastery over material and psychological tools, the central narrative of CHAT has focused on internalization and idealization, on the gradual move from externalized practice to interiorized practice, from external regulation of behavior (by environments and other people) to self-regulation (by inner speech).

This narrative is visible, for example, in the trajectory of play, which Vygotsky (1978) saw as fundamental in development. The trajectory was described as a movement from concrete to abstract-idealized activity, from play with objects that resembled the imagined object (a stick for a horse) to internalized imagination in adolescence. However, if we follow play today into adulthood, it seems to spiral to a higher level of concrete play: we find large-scale serious play (war games and disaster simulations, for example) with the actual objects (like tanks and airplanes or ambulances and hospitals) and people acting in their normal capacity (soldiers acting as soldiers and doctors as doctors) engaging in imaginary events for the dual purpose of individual-group training and cultural innovation (see Prior & Hengst, 2000). For Vygotsky, the sociogenesis of will was a critical concern; psychological tools were described first and foremost as a way of mastering one's own or others' behavior. In the accounts of literate activity by these academic writers, we see a similar spiraling trajectory in the development of will, in their use of ESSP's to tune consciousness, environment, and task. ESSP's highlight people's situated agency, their tuning to and of environments, their making of artifacts of all kinds. Critically, the ESSP's that we detail here not only involve externalizations, but externalizations meant to regulate thought and affect, to channel attention and action.

Some sociocultural work has attended more to these issues. Valsiner (1997, 1998) has emphasized not only the bidirectionality of internalization and externalization, but also questions of consciousness and situated agency that are seen even with young children.

> The child's behavior is interdependent with the possibilities that the environment provides, and the latter is structurally organized all through ontogeny. As the newborn develops, its actions begin to reorganize the

> structure of the environment. Likewise, the people around the child
> purposefully rearrange the structure of the child's environment so that it can
> eliminate dangers (e.g., taking away dangerous objects) and promote socially
> relevant goals (e.g., the integration of the child into the family's subsistence
> activities and their participation in social rituals). (Valsiner, 1997, p. 172)

Alexander, Miller, and Hengst (2001) illustrate one way children select and transform their semiotic worlds as they trace children's story attachments in U.S. families. Story attachments appear as social (and increasingly commodified) practices that involve children and others populating their world with artifacts and experiences related to a favorite narrative or narrative world. For example, a child attached to a dinosaur story might read the story (or have it read), watch a video of it, play with related toy characters, stamps, or coloring books, and then sit down to a meal of dinosaur-shaped food. Kress (1997) sees emergent literacy as part of a broader process of semiotic making using tools at hand. His examples involve not only early scribbling, writing, and drawing, but also the re-purposing of a Panadol box (into the form of a person) and the rearrangement of bedroom pillows and objects to make "a car."

In articulating his symbolic action theory, Boesch, (1991) highlights this active process of selecting and structuring the environment:

> …in every moment of our life we not only find ourselves within a complex of
> conditions built up during our past or provided by the environment, but, in
> order to be able to act, we must select within this complex and arrange or
> transform it in view of the intended purposes (p.50).

Lang (1997) presents these ESSP's as part of a symmetric and reciprocal, material-semiotic sociogenesis: "Throughout their ontogenetic development, not only are individuals building up and modifying structures in the form of dynamic memory in their mind-brains, but they also contribute to the formation and change of cultural artifacts in the physical and social space of their group" (p. 185). Boesch (1991) and Lang (1997) have explicitly focused on people's production of living spaces and their dwelling activities.

> Furnishing is more than just an additional way of forming space; it fills it with
> meaningful objects. They are meaningful in a double sense: first, they
> channel and support action within the room and second they symbolize
> mental contents of significance to the inhabitant…. Thus, space becomes
> place. (Boesch, 1991, p. 157)

In her studies of exceptionally creative individuals, John-Steiner (1997) argues that "the structuring of time and space according to one's needs and values is part of the invisible tools of creativity" (p. 74). In elaborating this point, she pointed particularly to Tchaikovsky's selection of a home outside of the city (Moscow), his schedule of daytime solitude and nighttime socializing, his daily walks with paper and pen wherein he often formulated germs of new musical composition that he would later transcribe. John-Steiner concludes: "Sustained, productive work requires more than mind for sheltering thought. It requires a well-organized and well-selected workspace" (pp. 73-74).

While studies of writing have existed as special problems within fields, especially psychology, literature, linguistics, and anthropology, throughout most of this century, it was only in the 1980s that a field of Writing Studies emerged in the U.S., centered in English departments and linked to the pedagogical mission of developing students' writing skills both in general and in specific disciplines. The emergence of this field cannot be separated from the emerging understanding of, and pedagogies for, writing as a process. The process movement had no single precipitating event, but clearly a central influence was the publication of the *Paris Review* interviews (see e.g., Cowley, 1958; Plimpton, 1963), in which published, privileged authors shared their personal sense-making, often messy processes of text production, struggles, and contexts. Emig's (1971) seminal study of the writing processes of high school students (especially the detailed case study of one writer, Lynn) made the critical ideological shift from looking at privileged authors to exploring everyday writing and also offered a more formal methodological and theoretical framework for studying writing processes. However, the subsequent formalization of method in clinical studies of writing processes (which had the effects of tightly bounding the times of writing and of observing writers outside of their typical scenes of writing) combined with the emergence of an abstract cognitive processing theory (e.g., Flower & Hayes, 1984) as the initial analytic framework meant, in effect, that little of the rich texture of everyday writing processes was uncovered in such studies (though interesting findings did emerge on the fine-grained complexity of written acts, a complexity that could be critical in combating unitary images of writing—including Bakhtin's 1986 treatment of writing a novel as equivalent to a turn at talk). When research on writing did move into naturalistic contexts, these contexts were primarily school and workplace settings, and most studies remained firmly fixed on the official side of the writing, often tracing the intersection of some text (or series of texts) with some contextualizations arrived at either through interviewing or discourse analysis of face-to-face interactions in which texts were planned or responded to.

Recently, the notion of writing as embodied has been taken up in Writing Studies in part through a focus on the joint work of planning and revision accomplished in face-to-face interaction and in part as the deployment of "embodied knowledge," knowledge grounded in situated practice and at best only partially capable of articulation. Sauer (1998) discusses the way that miners' "mine sense" represents an embodied knowledge in conflict with the technical knowledge of engineers. Haas and Witte (2001) describe ways that city engineers draw on their embodied experiences of attempting to move bulldozers and diggers in city environments and of interacting with property owners as they question draft standards for channel easements. What we would foreground in relation to these discussions of embodiment are ways that acts of writing are themselves issues of managing a body in space and that embodied literate activity is woven out of profoundly heterogeneous chains of acts, scenes, and actors oriented to diverse ends.

CHAT and Writing Studies alike could benefit from further study of these processes of tuning, of ways that writers act to form and regulate worlds to regulate their own consciousness and actions. These processes amount to the production of embodied chronotopes, the production of a lifeworld with a certain tone and feel, populated by certain people and their ideas, calibrated to a

certain rhythm. In that production lies the warp and weft of consciousness and action, of those threads are contexts woven and unraveled.

Conclusion

> The process of speech, broadly understood as the process of inner and outer verbal life, goes on continuously. It knows neither beginning nor end. The outwardly actualized utterance is an island rising from the boundless sea of inner speech… (Voloshinov, 1973, p. 96)

We have in the previous sections argued that CHAT and Writing Studies could both benefit from a greater awareness of chronotopically laminated chains of acts, artifacts, and actors that are woven together and unwoven in polyvalent moments of being; from greater attention to sense, affect and consciousness, to the messy ever-moving interactions of individuals being-in-the-world; and finally from attention to the ways that people select, structure, and make environments to regulate their consciousness and promote or impede their actions. Within these broad contours, there is room for a variety of methodologies to explore the specific patterns and processes that emerge in local and dispersed literate activity. In conclusion, we return to the initial questions of how studies of writing might inform the evolving agenda of CHAT and how CHAT might, in turn, inform studies of writing.

For CHAT, studies of the inventional and affective-motivational processes individuals report and display in their literate activity invites serious attention to the problem of consciousness, to the historical psychology that Vygotsky called for in 1934. Much work has been done that addresses elements of this call, but little has been directed at the fundamental questions of personality and consciousness (see also Gonzales Rey's, 1999, critical reflections on CHAT). Methodologically, private and public acts, meaning and sense, affect and attention, tools and spaces, all need to be woven together into a single story of productive activity. In addition, the fact that some forms of literate activity (not all or perhaps even most) involve such extended and pervasive engagement, become the center of life projects, points to the continuing need to understand operations, actions, activities, and objects in, as, and through historical trajectories. Bazerman's (1994) reflections on the difficulty of taking speech act theory into studies of longer texts and Bakhtin's (1986) problematic attempt to equate oral utterances delivered in real time with written works produced over years and decades both suggest the importance of theorizing these long chains of discourse and action that some literate activity involves. In short, studies of such complex literate activity afford problems that CHAT has resources to address, but that it has rarely addressed as of yet.

For Writing Studies, CHAT has worked seriously to theorize acts as distributed and mediated, to provide analytic frameworks for understanding the varied vectors of social forces that bear on writing, and especially to consider learning/development as ubiquitous dimensions of all acts in the world, as the on-going (re)production of persons, artifacts, practices, and environments. CHAT, in effect, remains at the center of a movement toward a historical psychology, a historical semiotics, and an integration of the two. This movement is important to Writing

Studies because, to paraphrase Voloshinov (1973), *literate activity is, after all, a purely historical phenomenon.*

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Notes

[1] In an earlier work, one of us (Prior, 1998) defined literate activity in the following terms:

…as an important corollary of mediation, writing is dispersed. Focal texts and transcriptional events are no more autonomous than the spray thrown up by white water in a river, and like that spray, literate acts today are far downstream from their sociohistoric origins. This notion of writing as situated, mediated, and dispersed is the basis for what I am calling literate activity. Literate activity, in this sense, is not located in acts of reading and writing, but as cultural forms of life saturated with textuality, that is strongly motivated and mediated by texts. (p.138)

[2] There have been a number of variations on this general protocol. We have begun in two cases with a videotaped tour of the writer's work space and in at least three cases have turned at some point during the interview to a computer to view a web document or CD project or to retrace an Internet search for information. This type of flexibility in the interviews seems valuable in terms of the data we are collecting.

[3] The four participants were chosen from among the 21 we have interviewed so far. They were chosen to represent a range of academic experience (from undergraduate to professor) and a range of levels of engagement (from fairly bounded classroom tasks to long-term extended projects) and because their cases illustrated well our general findings. They were not chosen as exceptional cases in any sense, except that the two undergraduates were both former students of Shipka and were, thus, more attuned to the rhetorical uses of alternative genres and media than typical undergraduates might be. However, none of the points we make in this paper hinge on that attunement or their specific products. Our participants so far have not included laboratory scientists or field workers in the sciences or social sciences, both significant groups we will be turning to in the next year. However, one of us (Prior) has also used a related drawing activity in writing-across-the-curriculum workshops for faculty and graduate students and seen similar representations and heard similar accounts of writing processes and contexts from over 200 academic writers, including laboratory scientists and field workers.

[4] Bakhtin did not explicitly distinguish between these two senses of the term and the uptake of chronotopes has generally been limited to the representational.

[5] With the explicit written permission of participants, we are using their real names. We did offer participants the option of pseudonyms as well.

[6] For transcription, routine backchannel comments (e.g., yeah, um-hm, right, okay) have been removed from the transcript. Ellipsis marks…indicate other excised text. [Square brackets] present editorial comments or clarifications as well as occasional significant backchannel remarks (in quotes). Uncertain transcriptions are surrounded by (parentheses).

[7] *Re-purposing* refers to the re-use and transformation of some text/semiotic object. Examples would include the use of popular songs for TV commercials or, more complexly, converting a novel into a film (or vice versa).

[8] See Luria (1982) for further discussion and examples of this distinction and its implications for CHAT.

[9] See Ochs, Taylor, Rudolph, and Smith (1992) for thick descriptions of such talk.

[10] In the social sciences (and perhaps in everyday argument as well), it is not unusual to see arguments made about what hypothetical persons ("someone," "anybody", "a person," sometimes a specific social category, a "student") do or would do in some situation (see Prior, 1994, for examples in sociology arguments).

[11] In an autobiographical narrative of his academic work, Pinar (1999), a curriculum theorist, noted that his work space at home included a floor-to-ceiling mahogany bookcase while outside his window there was bird feeder that gave him an interesting place to rest his gaze and think. The bookcase and bird feeder were specifically built for Pinar by his partner to facilitate his academic work.

[12] In an autobiographical account of academic work, Wendy Kohli (1999) describes a more radical version of bottom-on-the-seat time: asking her former husband to literally tie her to a chair for 45-minute stretches as she wrote her dissertation.