PRACTITIONERS OF EARTH: THE LITERACY PRACTICES AND CIVIC RHETORICS OF GRASSROOTS CARTOGRAPHERS AND WRITING INSTRUCTORS

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ABSTRACT

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This dissertation, “Practitioners of Earth: The Literacy Practices and Civic Rhetorics of Grassroots Cartographers and Writing Instructors,” addresses the question of how diverse literacies can advance the civic rhetorical work of communities underrepresented in public discourses. Specifically, I explore how grassroots cartographers make geographic maps to change dominant narratives and material realities of marginalized communities. I also explore how writing instructors teach geographic maps and diverse literacy practices in relation to civic learning objectives. I align my scholarship with feminist cultural geographers and rhetoric and composition scholars such Amy Propen; Nedra Reynolds; and Amy Diehl, Jeffrey T. Grabill, William Hart-Davidson, and Vashil Iyer who explore geographic maps in material, spatial, and rhetorical contexts. My dissertation continues this discussion, yet it goes further by examining the relationship between civic rhetorics and literacy practices as related to geographic mapping. To do this, I conducted semi-structured interviews to gather data from my participants shared with me. Additionally, I used textual analysis, narrative inquiry, and critical citation practices. To code and analyze the data, I used feminist-oriented teacher research and grounded theory methodologies. What I learned is that grassroots cartographers engage with diverse literacy practices, specifically rhetorical (audience and ethos), composing (multimodal and situated processes), intercommunal (cultural self-awareness and cultural humility), and technological (tools and communication). My findings also show that civic rhetorical work, including grassroots mapping, is accomplished through infrastructures that rely on people who practice a range of literate activities.
A small practitioner of earth,/I am learned from this

-Joan Naviyuk Kane

For Javier, Catalina, Mom, Dad, and Alana.

In every way, thank you for making this possible.
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CHAPTER 1.

METES AND BOUNDS\textsuperscript{1}: RHETORICAL & THEORETICAL FRAMEWORKS

1. Introduction

Rhetoric and composition scholars have followed suit in the “transformation” (Warf and Arias) of a spatial turn across the humanities—one in which GPS and mapping play critical roles—as well as a proliferation of community-based cartography groups nationwide. A number of rhetoric and writing scholars have incorporated geographic maps into their research (Propen, \textit{Locating}; Reynolds; Diehl, Grabill, Hart-Davidson, and Iyer) and into their pedagogies (Kurtyka; Holmes; Propen, “CCCC and Mapping;” Rivers). They have included geographic maps into the professional ethos of the field, such as with Jim Ridolfo’s “Rhet Map” that lists rhet/comp PhD programs and job openings. Finally, rhetoric and composition scholars have established maps as supplementary data in a variety of spaces, such as by generating maps in response to the geographic origins of tweets for the 2014 Thomas R. Watson Conference, and in response to locations of those participating in a public Digital Rhetoric Collective e-chat.

I have long been interested in the interrelations of material conditions and socio-cultural constructions between people and places, and as a rhetorical genre that represents and helps to shape such conditions and constructions, geographic maps are consequently of great interest to me. My interest in geographic maps at times overlaps with and at times diverges from other rhetoric and composition scholarship. Overlaps occur namely when a foci of culture, community, teaching, and civic rhetorics emerge. The divergence primarily occurs because my primary foci is why and how geographic maps are made —particularly the literacy

\textsuperscript{1} A method of surveying land to determine boundaries; a method that relies on description.
practices and civic rhetorics part of the mapping process. Stemming from an intersectional feminist standpoint, my goal for this research project is to explore how and why geographic maps are made for civic rhetorical purposes. In this dissertation, I look at geographic maps that disrupt oppressive material-socio-cultural conditions and constructions, or maps that offer alternative narratives of people misrepresented or underrepresented in mainstream maps. In particular, I focus on the people who make such maps, those whom for this project I am calling grassroots cartographers, or those map-makers who design maps with non-mainstream civic rhetorical purposes in mind. This research project also affords me the opportunity to bridge work done in grassroots mapping communities and in the academy by investigating how higher education writing instructors utilize geographic maps, civic rhetorics, and related literacy practices in the composition classroom. This bridging is also conducted by examining what patterns and anomalies emerge in and across grassroots cartographers and writing instructors’ literacy practice. From these findings I will also develop civic learning objectives for the composition classroom. This research is conducted through qualitative mixed methods that include interviews and textual analysis, and through a feminist, teacher research, and grounded theory methodological framework.

The feminist framework, in part, responds to Joanne Addison who writes, “(I)t is important that we continue to expand and critique the ways in which feminist rhetoric and empirical research inform one another in writing studies in our ongoing effort to realize what we can know, how we can know, who can know, and who can speak what we know” (136). In the dissertation, I conduct research within a feminist teacher research and grounded-theory theoretical framework to answer Addison’s call to expand who, what, and how we know in rhetoric and composition, and to provide what space I can for my research participants to
“speak what we know” through the data and findings I present in these pages. Therefore, honoring this call also means “seeking to create the conditions and circumstances whereby voices, stories, and discourses too long silent in the academy can be heard” (Sullivan 58), an opportunity where grassroots cartographers—previously “unheard” voices in rhetoric and composition—can help to elucidate teaching and literacy practices in the academy. Finally, with the dissertation I seek to contribute to feminist empirical research practices in rhetoric and composition with not only the feminist research standpoint I create, but also how I use this standpoint to treat the people and materials that inform this project.

In the rest of this chapter, I introduce and situate my dissertation. First, I address the impetus for the dissertation with a brief socio-historical and rhetorical contextualization of geographic maps. Then, I outline definitions of key terminology for the project. Next, I position myself and my dissertation within a theoretical framework, one that draws on feminist cultural geography, material feminism, queer phenomenology, and feminist rhetoric and composition theories. I move on to position the project within literature in the field of rhetoric and composition where I highlight points of similarities and differences between my research and that of other scholars. This introductory chapter concludes with a re-articulation of my research goals, a presentation of my research questions, an overview of the remaining four chapters, and, finally, a synthesis of the project’s purposes, including scholarly gaps that the dissertation attempts to address.

2. Rhetorical Situations: An Abbreviated Socio-Historical Context of Geographic Maps

Geographic maps have and continue to be ubiquitous rhetorical texts central to numerous cultures (Turnbull, Tyner), and those who create maps are influential rhetors who shape meaning within and across cultures. Some of this meaning-making reinforces and shapes
hegemonic perspectives and colonial narrative (Massey). For the purposes of this project, I focus on those working within and against hegemonic Western cartographers, their colonial cartographic practices, and the resulting maps. For example, the *Theatrum Orbis Terrarum* (see figure 1) created by the Dutch cartographer Abraham Oretlius in 1570 is a colorfully illustrated map that, according to de-colonial scholar Walter Mignolo, not only is considered the first atlas of the world, but also established a “new epistemic foundation” (187) of cartography, one which helped to support colonial and para-colonial practices. This cartographic foundation was constructed during two waves of European imperial expansion. During these waves, continental philosophers and other world-making rhetors, such as Oretlius, forwarded the belief of their own objectivity and universality; this resulted in displacing and replacing “the ethnic center with the geometric center,” thus marginalizing non-Western people and thought as “regulated to the past” (Mignolo 186). By creating a geographic worldview with Europe top and center on the *Theatrum Orbis Terrarum*, colonial ambitions are subsumed and perpetuated.

Fig. 1 *Theatrum Orbis Terrarum*, by Abraham Oretlius, 1570.
In addition to colonial practices, maps can additionally reinforce para-colonial practices, such as in the United States where there is a long history of cartography regarding land and subsequent political and cultural rights. As cartography scholar Dennis Wood argues, maps bring a state into being (33), and this was demonstrated as the federal government pushed across North America negotiating and breaking treaties with American Indian tribes in order to create the United States, all the while displacing tribes as they were granted nationhood on fragmented parcels of land. One map that represents the incomplete narrative of a tribe’s history, especially as related to territory, is a government map of the Tohono O’odham tribe (see figure 2). Though a map owned and presumably generated by the Tohono O’odham nation, this map shows the international border drawn up after the Mexican-American War and ignores the complete region in which the Tohono O’odham once lived and moved through freely. As a result, this map represents and reinforces para-colonial conditions: Tohono O’odham members must now go through bureaucratic hoops in order to cross the U.S./Mexico border to visit fellow tribal members and ancestral land. Due to colonial traditions that still inform cartographic practices and every day existences, many geographic maps are fraught with incomplete pictures of American Indian histories and cultures, histories and cultures that impact all U.S. citizens, albeit to varying degrees. Therefore, as a researcher and citizen affected by such histories and cultures, in this research project I look at the literacy practices of one grassroots cartographer making maps of alternative American Indian histories. The narrative gathered from this participant thus enriches the data and findings central to the dissertation, and ideally contributes to scholarship beyond the project.

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2 The Library of Congress and the National Parks Service are just two sources where American Indian cession maps and related documents can be found.
Colonial and para-colonial cartographic traditions continue to permeate many geographic maps. For example, one map that appeared in the *Washington Post* (see figure 3) and that covers the 2014 Israeli/Palestinian conflict names the nation-states Israel and Egypt, but does not name Palestine, a state recognized by the United Nations. Through this omission, one consequence among many is that a political bias is demonstrated by editors and staff of the *Post*. Furthermore, it reinforces a particular narrative purported by the United States, Israel, and other allied countries to the U.S. that obscures political recognition across international bodies. At the ground level, it strengthens Israeli settlement policies as it becomes easier to push forward into divided territories and develop land there when Palestinian nationalist sentiment and international law is not recognized. This correlation of map-making and land acquisition has a decades-long history in Israel alone. Dennis Wood writes about mid-twentieth century Zionistic operations to link Israeli cartographers, the Zionist Haganah militia, and mapping in an “operation wholly devoted to wiping the Palestinians from the land
as the mapmakers had already erased them from the map” (241). Though just one source, this particular map in the Post underpins one side of the complex Israel-Palestine narrative. In other words, the cartographers of this map, and the editors who approved it for publication, are rhetors operating with their own *terministic screens* (Burke) as part of polarizing socio-historical and cultural contexts. However, to offer an alternative story to the Israel-Palestine narrative, in addition to offering an embodied, nuanced account of contemporary Jerusalem, this dissertation includes an interview and textual materials from an Israeli citizen who does grassroots cartographic work in her native country. The inclusion of this participant, whose work can be found extensively in Chapters 3, 4, and 5 helps to enrich the data and findings of the research project, including how the literacies surrounding geographic map-making is civically and pedagogically important.

![Fig. 3 “The Crisis in Gaza,” The Washington Post, 1 Aug. 2014.](image)

As an audience to these cartographic texts, as well as any accompanying material,

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3 See the “Land and Settlement Issues” on the Global Policy Forum site as another example of maps highlighting the multi-vocal account of Israel-Palestine.
I recognize that these and other geographic maps are extremely helpful in situating my understanding of issues in particular locations and within rhetorical contexts. However, as a reader operating with my own feminist terministic screens—that is, through perspectives informed by an awareness of intersectional oppressive forces affecting women, people of color, impoverished populations, among other marginalized communities—I also read for the political nuances and hegemonic cultural narratives imbued in such maps. In her book *Geographies of Writing*, Nedra Reynolds addresses the complex rhetorical and cultural implications of maps. She writes, “Maps…do rhetorical work: they provide information that influences action; they persuade users to try a new route or stick with the old one; and they communicate an image of a place that may or may not hold up” (109). The maps that appear in predominantly mainstream sources—newspapers, government documents, corporate web-mapping services like Google and Bing—do this rhetorical work: the information communicated can influence action (or inaction) of citizens concerned, for example, about voting rights or foreign policy. Furthermore, as Reynolds writes, maps (and their cartographers) attempt to persuade users to “try a new route,” or not, in terms of socio-political beliefs (how are opinions, for example, about Palestine and Israel re-inscribed or challenged in the map in figure 3?). Finally, maps communicate a partial image of a place that, because of the graphic information both present and absent, uphold certain expectations while dashing others. In other words, as a reader analyzing these maps through my own terministic screens, I am aware that such maps widely circulating in print and online continue certain Western cartographic traditions of using particular geographical representations in specific design modes to illustrate underlying biased opinions and objectives. That is
to say, because of the rhetorical contexts of these maps (i.e. maps with high-tech
graphics created by specialists and found in mainstream U.S. newspapers with particular
audiences, resources, and editorial patterns), the map as objective reference is often
upheld.

As with the maps in such mainstream sources like The Washington Post and
government and corporate documents, I am critical of the “shininess” (Yergeau) of these
maps. Though Melanie Yergeau uses the term “shiny rhetorics” to discuss the oppressive
hierarchies placed upon and occurring within disability communities, “shiny rhetorics” is also
a fitting term for the work these maps do. Informative yet imbued with hegemonic discourses
stemming from the “epistemic foundation” of cartography, while also distracting from these
discourses because of the neat and professional packaging, geographic maps made by
cartographic specialists or professional graphic designers for specific institutions frequently
reinforce particular cartographic composing practices as well as reinforce limited literacy
practices and content expectations of audiences. In short, the spatial codes, biased narratives,
and authoritative presumptions suffused in such maps are frequently recycled and taken for
granted.

Because these types of geographic maps are so prevalent, authoritative, and expected, I
find it crucial to look elsewhere to see how knowledge is represented and communicated
through geographic maps created by grassroots cartographers, or those who make maps that
represent material spaces, and the correlating stories, underrepresented in mainstream maps.
After all, Reynolds writes, “…mapping is an important spatial practice that illustrates the link
between geography and culture, between images of the world and world power, between the
concept of space and actual places” (80). In other words, the rhetorical act of making maps,
and the resulting geographic texts, is imbued with considerable forces of influence and the subtle, but significant, aspects of everyday existence. For these reasons, I find it critical to look to rhetors, or grassroots cartographers, who offer alternative stories of everyday existence in the texts they create. Grassroots cartographers “define and determine alternative standards” (hooks, *Talking Back*) of cartography because they recognize the high stakes of geographic maps that Reynolds outlines. Specifically, grassroots cartographers focus on developing maps for and with communities who are not often or accurately represented in geographic maps, communities who often lack the resources and the knowledge to make maps representative of their spaces and interests. As one example, see figure 4, a text created with inexpensive hardware and open-access software to map a neighborhood a local community organizer wanted mapped for civic purposes. The grassroots cartographer, one of my research participants, who created the map in figure 4 describes her impetus for making grassroots maps as follows:

The possibility to create beautiful and engaging photographic maps with residents and around issues and matters of concern … spurred my imagination, I saw it as an exciting technological and political tool for creating new ways of seeing, bypassing the governmental and corporate control over geo-spatial information that is shaping the ways we imagine the urban space and geography. (Hagit Keysar qtd. in Brix-Etgar)
Because of the high stakes and consequences that geographic maps pose, as well as the “exciting” opportunities geographic maps offer civic communities, in this dissertation I investigate the literacy practices, as well as the purposes and exigencies, of grassroots cartographers who make maps for people and places misrepresented or underrepresented in geographic maps. Furthermore, in the dissertation I explore the civic rhetorics that arise from such literacy practices to demonstrate the connections between the ubiquity of geographic maps in everyday lives and the need to have diverse, rhetorically savvy readers and producers of maps.

As Reynolds and Keysar make clear, there is much at stake—such as political, cultural, and communal consequences—when it comes to geographic maps. Amy Propen also stresses that “These cartographic texts…have both an immediate impact on contextualized, bodily experience as well as broader consequences within and beyond the rhetorical situation” (7). In addition to highlighting the material aspects of geographic maps, Propen focuses on the rhetorical nature of such texts, and also suggests corollaries deriving from this rhetorical nature. Because of what these
scholars write, I find it critical to look to not only to grassroots cartographers, but also to writing instructors who teach with geographic maps to help students become rhetorically savvy readers and producers of such significant texts. Therefore, in Chapter 5 of this dissertation I present interviews with such writing instructors and analyze texts related to the materials used to teach geographic maps within the context of the composition classroom. By studying the work of both geographic cartographers and writing instructors I highlight literacy practices conducted for civic purposes across institutional and other public spaces.

3. Key Terminology
3.1 Geographic Maps and Grassroots Maps

Throughout this project I use the term maps and geographic maps interchangeably. At its most straightforward, a geographic map is a symbolic depiction showing the spatial relationships of a location. Geographic maps are ubiquitous parts of our lives: they aid in direction and transportation, guide planning and development, and help assess property and resources, just to name a few examples. However, maps also communicate particular meanings depending on the cultures the map and its cartographers emerge from, and depending on the cultures its readers identify with. Furthermore, maps, per the design of the cartographer, display the world by occluding a great deal and revealing a small bit, or, like Reynolds writes, maps represent the “fragmentary nature of all forms of knowledge and information” (82). Geographic maps, then, are only a partial representation of what is seen; they are, in fact, more complex as rhetorical texts that communicate complex worldviews.

For the purposes of this project, grassroots maps are also geographic maps. These
maps may be designed with specialized tools—mapping or design software, digital geographic information systems, expensive hardware—or they may be designed with open access/wiki maps, free online mapping services, pen and paper, or repurposed and relatively inexpensive hardware. The grassroots cartographers I interviewed for this project use a variety of these tools and the tools themselves range in accessibility. The idea of access fits within a general grassroots framework due to the idea that marginalized people should be—and often do—take civic action with resources available to them. However, depending on the resources of the community, some tools are more accessible than others. What I learned from my research is that grassroots cartographers often become “literacy sponsors” (Brandt, Literacy) for the communities they work with because the cartographers come from more privileged backgrounds than many of their community partners and thus have better access to more expensive mapping tools. Grassroots maps, often created by accessible tools, still may look professional and may not be distinguishable from maps designed for government or corporate purposes. This is where the idea of rhetorical context is key: grassroots maps are distinguished by the purposes of the maps, the rhetors creating the maps, and the socio-cultural contexts from which the rhetors’ map-making purposes arise. Ultimately, if a map is designed by and for people who resist an oppressive cartographic “epistemic foundation” in order to create alternative narratives for their communities—in other words, for civic rhetorical purposes—then, for this research project, it is a grassroots map.

3.2 Grassroots Cartographers

There are several terms I could use to describe the research participants I interview for this research project, including terms the research participants themselves suggest: Counter- cartographer, neo-cartographer, interdisciplinary artist. When introducing
individual research participants, I will use the term that the participant named for him- or herself. However, for the purpose of having consistency in language as I write the research project, I chose “grassroots cartographers” as a term that speaks to the shared beliefs and experiences of the participants. In other words, because my research participants are self-taught in the art of cartography, because they are influenced by and work with community partners, and because they each have as their objective the desire to disrupt oppressive, mainstream narratives of power, I find “grassroots cartographer” to be an effective term to describe the participants whose literacy practices I learned about through my research. Finally, this is a term I learned upon my introduction to grassroots cartography. I first learned about this civic-minded form of cartography in an article written by the founders of the Public Laboratory of Technology and Science (PLOTS). The article outlines civic motivations and literacies needed for the participatory map-making conducted by the members of the PLOTS community. Along with a feminist focus on the grassroots (Harding), after reading this article, the term “grassroots” has since served as a foundation for my understanding of the civic work these cartographers do.

3.3 Literacies and Literacy Practices

In *Traces of a Stream*, Jacqueline Jones Royster writes literacy "is the ability to gain access to information and to use this information variously to articulate lives and experiences, and also to identify, think through, refine, and solve problems, sometimes complex problems, over time" (45). Thus, literacy demonstrates the ability to engage in particular practices along a spectrum of ability—from functional to fluent—in order to access and produce knowledge in meaningful ways. This is similar to how Beth Daniell defines literacy as a means of knowledge production, an important connection to rhetoric and composition, a field which
values meaning-making in a variety of forms at different levels, from novice to expertise.

Critical to note is that literacy practices exist within cultural contexts; thus, literacy is a product of and (though debatable) a key to power, and a meaning-making practice. For example, Brian Street frames literacy as complex, cultural, cognitive, and ideological (435). Street’s model frames my definition of literacy because it speaks to the fact that people learn from the cultures they are a part of as they also learn from, or in spite of, where they are positioned within those cultures. Additionally, by acknowledging the skills and cognitive aspects of literacy, Street’s definition of literacy offers the space to look at nuances of how an individual contributes to the cultures and communities he or she is a part of; specifically for this project, this connotation of literacy helps me to see what individuals bring to their cartographic practices, as well as to their communities.

Like Street, Daniell is also interested in the broader context of literacy as she writes “literacy does not work the same way in all cultures” (397). In other words, literacy is comprised of different knowledge producing practices that individuals bring, both tacit and explicit, within an ecology of literacy that allows individuals or a community to move forward with the literacy practices important to them. To complement and complicate this understanding, Catherine Prendergast writes, “Literacy… is about learning, about the economy, work, gender, race, and class, but it also a mode through which we experience gains and losses that are personal, unpredictable....” In short, literacy is part of a complex network of socio-political and personal factors. Patterns of literacy can be observed, but literacy practices are also nuanced and particular to individuals within a broader cultural context. As I move forward, I will explore how these culturally taught, highly valued, and contextualized skills contribute to the literacy practices of grassroots cartographers and writing instructors
teaching geographic map-making to their students.

3.4 Civic Rhetorics

Aristotle described rhetoric as being “within the knowledge of all people” (30) and that persuasion should be made through the quality of the speech (or any rhetorical act), not through the reputation of the rhetor (39). This provides a grounding for the idea of civic rhetoric as belonging to all people, all communities, and that assumed positions of power do not preclude marginalized people from having an impact on their communities through the rhetorical acts they engage with. For me, civic rhetoric is the meaning-making work everyday individuals and communities engage with in order to make their communities stronger. Michele W. Simmons and Jeffrey T. Grabill write this about civic rhetoric: it “must concern itself with the day-to-day rhetorical practices of ‘everyday people,’ not exclusively with the concerns of The State” (439). In other words, civic rhetoric is comprised of numerous practices, including those day-to-day ones that may seem mundane but which community members are often expert in because they are comprised of daily routines; these practices could include email communication, organizing meetings, reading news sources, and more.

However, civic rhetoric is also an opportunity for rhetorical practices to be challenged, and where different experts can come together to take civic rhetorical action. For example, if a community desires to map areas of industrial contamination in a neighborhood in order to report this contamination to municipal policy makers, not all of the community members may have cartography skills. Those practicing grassroots cartography would share their expertise and work with the rhetorical practices other community members have in order to create and carry out the civic purposes the community wants to see completed. Civic rhetoric incorporates rhetorical practices of everyday people who occupy different positions of power.
within a “State,” but who do not occupy central power within that “State.” Civic rhetoric is also the practice of making change for community-minded, everyday people.

4. Theoretical Positioning: A Feminist Framework

As a feminist, my scholarship is impacted by an intertwined personal and political research standpoint. This feminist standpoint is comprised of intersectional forces, including where everyday spaces, labor, local and global power structures, embodied experiences, radical thought and praxis, otherwise impact the lives of marginalized people (Harding) overlap. Furthermore, whether through textual or interview-based research, I am interested in listening to narratives of individuals, while I attempt to attune myself to the biases I bring to these listening sessions. This type of research is an intimate act, and it raises concerns of an ethics of care (Noddings, Reinharz 265). While attempting to understand and piece together the intersectional points listed above, for this research project I seek to situate my research questions and processes, data and conclusions, and the participants with whom I work within a critically compassionate framework where I engage with multiple forms of relationships and power dynamics.

My feminist standpoint theory is also largely influenced by ideas of resisting binaries by acknowledging differences, while also attempting to avoid relativism and to look for patterns of shared experience. This approach, I believe, can be achieved through an intersectional framework that draws on not only the multiple forces listed above, but also from multiple disciplines. Specifically, these ideas are shaped in part by feminist cultural geography, the queer phenomenological theory of Sara Ahmed, materialist feminism, and feminist theories in rhetoric and composition. In particular, Jacqueline Jones Royster and Gesa
E. Kirsch’s seminal text *Feminist Rhetorical Practices* is influential to my own feminist framework. In this text, the authors explore intersectional “elements and properties” to create “a more inclusive organizational schema, a matrix, for seeing and understanding paradigmatic shifts and changes of varying kinds” (44). Royster and Kirsch make clear that they mean for these elements and properties to not be binary; rather, they are used to add leverage to a critique of traditional Western male properties in the rhetoric and composition (and literacy) discipline. The elements and properties in Royster and Kirsch’s list includes gender, which they immediately problematize by mentioning queer and transgender texts, and race and ethnicity. The scholars also highlight status, a term they use for eliteness as “tied to systems of power, prestige, and privilege in relation to others” (51), geographical sites, and rhetorical domains that look, for example, to private versus traditional public spaces. Finally, Royster and Kirsch list elements such as genres (everyday, mundane writing, for example, that makes material realities all the more transparent), and modes of expression, such as blogs (65).

The purpose of examining these properties is that they exemplify an intersectional approach that looks at the multitudes of differences and similarities individuals and communities contain. For the purposes of this project, this primarily means the differences and similarities between my research participants, though it also indicates the additional material used to collect data and discover findings. My participants are of different nationalities, genders, races, and statuses, and though they all make maps (genre), the modes of expression for these maps look different: from digital photographs, to film, to software graphics. An intersectional feminist framework that recognizes similarities and differences will allow me to treat each participant with an ethics of care, while also allowing me to draw conclusions based on patterns and anomalies from the data the participants provide.
Feminist cultural geographer Doreen Massey also highlights issues of intersectionality and difference, albeit using different terms, when she writes about space. For Massey, space “is a product of interrelations,” it contains multiplicity, plurality, heterogeneity, and it is “always under construction” (8). Massey’s propositions of space suggests an evolving framework of relationships—relationships made up of the multiplicity, plurality, heterogeneity that she writes of—shaped by different power dynamics. These are important concepts for my project which seeks to explore power relations and how grassroots cartographers and writing instructors work with communities to resist such power dynamics, all the while working from their intersectional positions of identity and agency. Furthermore, as Reynolds and Propen write, space is a critical part of map-making and thus Massey’s dynamic theory of space expands how geographic maps can be understood and produced.

Massey’s propositions of space are also similar to Ahmed’s understanding of queer as an orientation to space where the body and desire (categorized in this project as exigencies for rhetorical action) are positioned within space in relation to objects. These positionings in space signify the queerness Ahmed suggests: where one is positioned determines ones queerness. This idea of queerness and space is helpful for my dissertation because the grassroots cartographers I interview are representative of and interested in working with marginalized people. In other words, if hegemonic power is at the center of space, then the positions of marginalized people occur along a spectrum falling away from the center of this space—their relationship to power is queered. However, using Ahmed’s key terms of body and desire, the participants and the people they work with are resisting the queered positions they are in, even if this means queering themselves in space on their own terms. While the academy is often positioned more closely to a nexus of hegemonic power, teachers in higher
education often attempt to disrupt the authority of the academy, or themselves are in compromised positions of power within the academy. Writing instructors negotiate their own agential subjectivity and often teach students about students’ agential possibilities within the spaces of the academy and the larger world. Therefore, in this dissertation Ahmed’s concepts of space, queerness, and desire (rhetorical agency) also complements the data collected from writing instructor participants.

The feminist cultural geography theory of time-space is also critical to this feminist framework and to this project. Time-space geography of the 1980s was a way for geography to explicitly enter the social science arena as time-space geographers argued that human agency—the repeated actions and interactions of people with others and with objects—shape society. Feminist geographers, Gillian Rose claims, embraced time-space theory because it acknowledges the “ordinary” spaces that women so often occupy: meaning, spaces that are not often loci of political/economic power and influence. Additionally, Massey’s concept of time-space contends that “the spatial in a particular way can shake up the manner in which certain political questions are formulated, can contribute to political arguments already under way, and—most deeply—can be an essential element in the imaginative structure which enables in the first place an opening up to the very sphere of the political” (9). Time-space is a significant concept for my feminist theoretical framework and research because it highlights issues of material conditions, labor, the personal lives of people within a political network, and it is also about praxis. This time-space concept also complements material feminist concerns with “language, culture, representation, and subjectivity” while “locating them in their social and historical context” (Jackson 284). As people operate within socio-historical rhetorical situations, the utilization of language, cultural representation, and
subjectivity is an assumed but not always acknowledged process that people use to negotiate the ordinary spaces they inhabit and the political spaces they occupy and seek to transgress. Thus, the materiality of space—for it is argued that language is material (Chen 53), as is the embodiment of one’s culturally-signified subjectivity (Bost, Kirby, Ahmed, Moschkovic)—is a way to think critically about how the private and public spaces of my participants influence the mapping practices they use, as well as the how these spaces afford and limit their civic potentialities.

While Rose and Massey discuss the important steps time-space geography made in moving towards a feminist understanding of space, Rose also offers several critiques. The most significant to me is when she discusses how many of the case studies conducted by time-space geographers lack emotional depth and lack real bodies, despite the geographers’ intentions to capture the lives and spaces of women and children. Even the authors of these case studies’ lament their inability to move past the restricted nature of their compositions restricted in tone, material, and analysis. Rose finds the most successful work by a researcher who is not a geographer but a historian, a scholar who looked at 19th century women and their domestic spaces and who included archival material, such as material written by the women themselves, in her study. This is an important lesson for me as a feminist researcher for this project: I want the lives of my participants fleshed out, as much as can be done in a dissertation, so that these participants are more than one-dimensional. The participants are my key means of knowledge making for this project, and to recognize this I need to honor their knowledge and their lives by writing the most fully-formed representations of them that I can. This means attending to intersectional elements and properties, including differences of subjectivity, language, culture, and other intersectional forces that affect each participant in
different, and at times similar, ways.

5. Positioning the Research within the Field of Rhetoric and Composition

Geographic maps feature in the work of several rhetoric and composition scholars, most notably for me in the work of Amy Propen; Nedra Reynolds; and Amy Diehl, Jeffrey T. Grabill, William Hart-Davidson, and Vashil Iyer. In her book *Locating Visual-Material Rhetorics: The Map, the Mill, & the GPS*, Propen explores the visual, material, and embodied rhetorics of cartography. Using geographic maps to develop her theory of visual-material rhetorics, Propen does important work to situate geographic maps as complex semiotic and rhetorical documents, as representative of knowledge production, and also as culturally grounded. For example, Propen writes, “The idea that the graphical features of the map not only shapes its meaning but also are informed by the cultural contexts and relational processes in which mapmakers and users are immersed broaches an understanding of the map both as sign system and cultural artifact” (8). Here Propen also signals the relationship between mapmakers and map users and while she hints at the *whys* and *hows* of map making, her work is not explicitly concerned with the literacy practices of cartographers.

In *Geographies of Writing: Inhabiting Places and Encountering Difference*, Reynolds write about maps’ colonial and imperial “capital;” the growing population of map consumers; and the democratic, public, yet still often positivistic value of geographic maps (80-81). Like Propen, the attention Reynolds gives to the cultural, spatial, and civic nature of geographic maps, while also situating geographic maps in the field of rhetoric and composition, is a critical foundation for the work I will do in my research project. And while Reynold’s arguments mirror current conversations in grassroots cartographic circles, Reynolds is not focused on the literacy practices of grassroots cartographers, but rather on a geographical
rhetoric that “provides both metaphors and particular methodologies for the study of writing, writers, and place” (5). Reynolds’ arguments are writing studies/teacher-student centered and this will be beneficial not only for providing implications for the writing classroom in my research project, but also for learning how teaching occurs by those whose cartographic work occurs outside institutions of higher education. However, my work in this project goes beyond the writing classroom by seeking to bridge academic and non-academic mapping communities.

In their article on public rhetoric, knowledge work, and maps and mapping technologies, Diehl et al. come closest to my interest in understanding map-making as a civic rhetorical practice, as well as the literacy practices involved with cartographic work. The authors write, for example, how map-making is a rhetorical activity because “The power of visual and spatial analysis through mapping techniques can guide decision making” on a variety of issues (416). Like Propen, these authors recognize the centrality of visual and spatial analysis in mapping and how such skills affect decisions made for different mapping related issues (rhetorical situations). However, these authors are also interested in why and how people make maps, and they specifically describe the means “to identify, think through, refine, and solve problems” (Royster 45). By turning their attention to a community with whom the authors work in order to meet civic goals like planning safer walking routes, Diehl et al. outline the literacies and tools they and the community need to accomplish very specific mapping goals. Here the work of Diehl et al. echoes the scholarship of David M. Sheridan, Jim Ridolfo, and Anthony J. Michel who write about multimodal public rhetorics in their most recent book. Sheridan, Ridolfo, and Michel argue that people express their identities and desires in public spaces with invention practices in order to address “public exigencies” (50). In other words, people use multimodal means in order to meet civic purposes based on
personal needs and subjectivities. The public exigencies of my participants in public spaces, as well as the multimodal invention practices they utilize to make and teach maps, reiterates the “public exigencies” of Sheridan, Ridolfo, and Michel, and reflects the civic objectives of Diehl et al. and the community members with whom they work. Therefore, these scholars help inform my understanding of the possibilities of civic rhetoric associated with grassroots cartography, along with the literacy practices that inform such civically focused work.

Diehl et al. also raise issues of concern regarding the labor involved with composing geographic maps. The authors write “…often the ability to create usable knowledge and meaningful action are too often assumed…” (419); in other words, the actual work of making maps is often rendered invisible. By dedicating a research project to explore the civic rhetorics of literacy practices of grassroots cartographers and writing instructors, I can complement the work of Diehl et al. and, to a degree, help expose the often assumed invisible labor behind geographic maps. As a feminist scholar I am concerned with how marginalized individuals and communities are overlooked and exploited in numerous ways, and the invisibility of labor is a primary factor in how many people are ignored and oppressed. Therefore, it is necessary to continuously circulate conversations of and work by people whose labor—whether civic or academic, or both—is taken for granted, especially when they are not often associated with particular types of work in mainstream discourses in the first place. Learning, analyzing, and circulating the cartographic work of grassroots cartographers and the everyday citizens they work with is a type of civic rhetoric; it is the type of civic rhetoric of Ellen Cushman addresses when she writes about “…ways we can empower people in our communities, establish networks of reciprocity with them, and create solidarity with them” (7). It is therefore not only civic work and a type of civic rhetoric when grassroots cartographers make maps with or for
communities, but also civic work (in addition to feminist work and ethical research) when grassroots cartographers empower mapping communities through avenues of relation-building and by raising awareness of labor and what this labor creates. It is also a type of civic work for writing instructors to prepare their students for understanding and producing rhetorical texts, including the complex, ubiquitous texts that are geographic maps.

Work that attends to everyday communities, that seeks to explore connections between communities and to do work with and across these connections is, in short, civic rhetoric. Grabill describes the exigency of civic rhetoric (what he calls “public rhetoric”) as “support(ing) the work of others—to help others write, speak, and make new media and other material objects effectively” (“On Being Useful” 193). By teaching people cartographic skills, or by gathering stories from people and representing these stories in geographic maps, civic rhetoric is often the type of work grassroots cartographers seek to do for the communities they work with and for.

Similarly, writing instructors in higher education seek to support the learning of their students so that they can do well in spaces beyond the classroom; this teaching, then, can also be considered a type of civic rhetoric. Civic rhetoric is also work I seek to do with my writing students and I find this connection between the civic rhetorics of the writing classroom and the civic rhetorics carried out elsewhere to be not only compelling, but necessary to draw attention to. Because civic rhetorics offers the possibilities of moving individuals and communities in directions they seek to go, it is important to understand the numerous ways in which to carry out civic rhetorics, as well and the literacy practices which support such work. By learning numerous literacy practices related to civic rhetorics, a person is able to apply the necessary practices to the kairotic rhetorical situations in and outside the classroom. Sheridan,
Ridolfo, and Michel emphasize a “kairotic approach to public rhetoric” (20), meaning rhetors in diverse public spaces should be able to gauge a situation and determine what rhetorical action should be taken. For grassroots cartographers this may mean knowing when and how to make particular maps and who to present these maps to; for the writing instructor, this means teaching students how to assess kairotic opportunities to conduct particular types of work.

And while the authors believe that the agency each rhetor possesses can be compromised when manipulating kairotic moments due to complex socio-cultural-historical contexts that shape the spaces rhetors inhabit (11), I believe understanding kairotic approaches to public rhetoric affords rhetorical agents more possibilities. Therefore, by researching the literacy practices of grassroots cartographers and the civic work they do, I can enrich the civic rhetorical practices that my writing students and I engage with, and in the dissertation I can provide implications for how to teach kairotic approaches in civic rhetorical moments.

Building off this idea, I also seek to carry out this research project because of the ongoing need for rhetoric and composition scholars to turn their attention away from the academy in order to enrich their work both in and outside the academy. For example, Susan Searls Giroux, Ellen Cushman, Linda Flower, among other rhetoric and composition scholars, advocate for scholarly and civic participation outside of the academy by members of the academy. Cushman, in particular, writes, “I am asking for a deeper consideration of the civic purpose of our positions in the academy, of what we do with our knowledge, for whom, and by what means” (12). Such authors charge scholars to go beyond the important work of critical pedagogy to work with fellow community members on issues beyond, though perhaps related to, the ivory tower. This charge is important because it speaks to my feminist beliefs in advocating for and working with marginalized voices from different communities, and for
examining connections between communities operating within different spectrums of power. This charge is also important because I wish to do research with people representative of a broad, loose community of cartographers whose work exists primarily outside, though at time parallel to, the academy. So, while Diehl et al. have published about an everyday mapping community to inform writing research, I would like to more extensively study grassroots cartographers, their various communities, and how and why they do this work not only to deepen rhetoric and composition scholarship, but also to situate myself as a researcher acting upon my “civic purpose” within and outside of the academy. This dissertation affords me the opportunity to also make connections between grassroots cartographers and writing instructors in order to understand literacy practices that exist across, and uniquely separate from, each academic and non-academic space.

Some of the additional civic work rhetoric and composition scholars do across academic and non-academic communities is knowledge work (Grabill *Writing Community Change*; Diehl, Grabill, Hart-Davidson, Iyer); this also is work that grassroots cartographers engage with. Diehl et al. describe knowledge work as “analytical activity requiring problem solving and abstract reasoning” (414) often involving advanced forms of information technologies and writing. Grassroots cartographers certainly do knowledge work that is situated in civic rhetorics: their literacy practices engage with numerous tools, including information technologies, and writing. Grassroots cartographers also solve problems related to abstract reasoning, specifically spatial analyses and problems of design and representation. This knowledge work is also part of civic rhetorical practices because grassroots cartographers work to represent people, places, and narratives that are often marginalized, whether with, for, or about (Deans) these marginalized communities. Knowledge work and
civic rhetoric performed inside and beyond the academy are creative, disruptive, and frequently collaborative methods necessary to work against increasingly monolithic, hegemonic, and privatized systems of power; systems that marginalize people further and that grassroots cartographers attempt to work against. This type of work continues to be sought out by rhetoric and composition scholars who wish to study communities engaging with different types of knowledge work within civic rhetorics frameworks outside the academy. This work also continues to be studied by rhetoric and composition scholars interested in the connections between analytical thinking using information technologies and writing.

Finally, for grassroots cartographers, writing instructors, and their community partners and students, respectfully, by engaging in the knowledge work and civic rhetorics of grassroots mapping and research, what is also at play are issues of culture. As Henry Giroux writes, “…culture is the primary sphere in which individuals, groups, and institutions engage in the art of translating the diverse and multiple relations that mediate between private life and public concerns” (62). As Propen, Reynolds, Tyner, and others argue, geographic maps are firmly established artifacts of culture, and, as Street, Daniell, and Prendergast emphasize, literacy practices also stem from cultural contexts. Furthermore, grassroots cartographers and writing instructors are some of those “translating the diverse and multiple relations that mediate between private life and public concerns” in cultural spheres. In other words, grassroots cartographers and writing instructors work with and for everyday communities, and with and for themselves, across private and public areas of interest and across private and public spheres. For example, grassroots cartographers often gather information to map in public forums, where both private and public concerns are aired, while the mapping process may happen in either a public or a private space. Writing instructors often teach students to
consider rhetorical situations when writing for various purposes in various genres and spaces. The private desires of people voiced publically, the concerns raised about general public interests, these exigencies for mapping, in addition to the literacy practices occurring in different spaces, are all imbued with diverse cultural imprints that affect a civic rhetoric interested in representing such diversity. It is important for rhetoric and composition scholars to call attention to the overlapping cultural desires and spaces people use to compose not only to honor and practice the knowledge work of civic rhetors outside of the academy, but also because these cultural factors are reflective of our classrooms and scholarly institutions. With reflective practices, rhetoric and composition scholars such can enrich their teaching practices by paying attention to how others navigate cultural spheres. As a writing scholar, I can enrich my pedagogical and scholarly practices by observing how grassroots cartographers and other writing instructors navigate different rhetorical situations.

6. Reiteration of Project’s Goals and Corresponding Research Questions

This scholarship underscores the importance of continuing to investigate literacy practices within and outside of the academy. The research conducted for this dissertation serves to enrich scholarly discussions and pedagogical practices in rhetoric and composition, and ideally it is also beneficial for grassroots cartographers who may wish to see qualitative data from other cartographers, and how their own map-making processes fits within this data. In order to meet these goals, throughout this project I provide qualitative data through a mixed methods examination of the exigencies of grassroots mapping as well as the literacy practices of grassroots cartographers and the learning objectives of writing instructors, with a focus on the civic rhetorics created by such people and practices. I ground this examination in a feminist framework that also guides the methodological practices of my research. Throughout
my research, my goal is also to suggest how rhetoric and composition scholars can continue to teach and research multi-layered literacy practices and civic rhetorics that emphasize infrastructures of cultures, communities, resources, and activities. Finally, an underlying objective—one demonstrated not in an explicit research question but rather through the process of the research itself—is to demonstrate yet another example of feminist empirical research in rhetoric and composition, a goal that Addison sets out for other feminist rhetorical scholars.

Based on my goals for this project, the following questions guide my research:

1. What are the purposes and exigencies for grassroots cartographers to make geographic maps?

2. From these exigencies, what are some of the literacy practices of grassroots cartographers?

3. Specifically, how do these literacy practices of grassroots cartographers create a form of civic rhetoric(s)?

4. How can grassroots cartographers’ literacy practices inform civic pedagogies in the composition classroom?

These questions are addressed by specific methods and framed by feminist, teacher research, and grounded theory methodologies, later outlined in Chapter 2. For example, I draw on several scholars to develop my own feminist, teacher research, and grounded theory methodological framework, and I describe research methods compatible with the three methodologies, complementary with these research questions, and, in particular, methods responsive to the care of my research participants. These methods include interviews, textual analysis, narrative inquiry, and citation practices. In order to
further explain this work in Chapter 2, and to forecast the rest of the dissertation, what follows is an abstract of the remaining chapters to ground the reader in the direction and purpose of the project.

6.1 Chapter Descriptions

Chapter 1: Metes & Bounds: Rhetorical & Theoretical Frameworks.

Chapter 2: An Alidade for Research: Methods and Methodologies. This chapter will explain the mixed qualitative methods employed in this research project. Additionally, I will describe how feminist, grounded theory, and teacher research methodologies shape my research, including my desire to build reciprocal relationships with my participants, relationships that honor an ethics of care while also honoring the complexity of power dynamics between researcher and participants. Throughout the chapter I ground my research methods and methodologies from scholarship in the field. I include brief descriptions of my participants in this chapter, and I outline the connections between each research question and the corresponding methods to collect and analyze the data to support the findings that emerge from this data.

Chapter 3: Maps as Sites of Encounter: Exploring Grassroots Cartographers’ Exigencies and Purposes for Map-Making. The third chapter addresses my first research question. Chapter 3 begins by using thick description to more fully introduce the grassroots cartographers and their mapping projects. The chapter then continues by exploring the different personal purposes and broader exigencies for why my participants make grassroots maps with and for different community partners. I use data from my interviews and the supplemental texts produced by my participants—such as their maps, articles, and videos—to look for patterns of similarities and anomalies in the data I collected and analyzed. From
In this analysis, I identify the cartographers’ purposes and exigencies for making grassroots maps, explain the rhetorical significance of these purposes and exigencies, and forecast the following chapter.

Chapter 4: How to “Activate the Landscape”: Exploring Grassroots Cartographers’ Literacy Practices and Civic Rhetorics. In this chapter, I address my second and third research questions. Chapter 4 is used to identify several of the literacy practices my participants use to make grassroots maps. As in Chapter 3, I use data from my interviews and the supplemental texts produced by my participants to look for patterns and anomalies in the data to identify these literacy practices. In this chapter I also explore how these literacy practices inform civic rhetorical infrastructures, or infrastructures that conduct everyday meaning-making work for civic purposes. This chapter concludes by forecasting the final chapter which addresses the final research question.

Chapter 5: A Meridian Arc: Civic Learning Objectives for the Composition Classroom. The final chapter offers implications for rhetoric and composition scholars based on the finding from this research project. More specifically, I draw connections between the literacy practices of grassroots cartographers and the learning objectives of writing instructors and develop a set of civic learning objectives for the composition classroom. As a way to emphasize the feminist theoretical framework that guides this research project, the learning objectives are also informed by feminist pedagogical praxes. The learning objectives are also positioned alongside the 21st Century Literacy Practices and Multimodal Literacy Practices Position Statements issued by National Council of Teachers of English. This is to demonstrate the relevance of the objectives I developed within the field of English, but also to show how civic learning objectives encompass other goals practiced by rhetors in and outside academia.
The chapter concludes with possibilities for future studies and final thoughts on the project.

7. Conclusion

Drawing primarily upon the cartographic rhetorical scholarship of Amy D. Propen, Nedra Reynolds, and Diehl et al., as well as a feminist framework shaped in part by feminist composition and rhetoric scholars, feminist cultural geographers, Sara Ahmed’s queer theory, and feminist materialism, in this dissertation I analyze the data collected from grassroots cartographers to examine their literacy practices, the exigencies of such practices, and the civic rhetorics resulting from such practices. I also analyze the data collected from writing instructors who use geographic maps, various literacy practices, and civic rhetorics as part of their instruction. My research seeks to complement the research done by Propen, Reynolds, and Diehl et al. on geographic maps, as well as to shine light on the literacy practices of grassroots cartographers, and to make connections between such practices in and outside of the academy. Similarly, I hope my research offers a space for my participants to share some of their ideas and labor as related to the civic rhetorics (Aristotle; Grabill; Simmons and Grabill; Sheridan, Ridolfo, Michel), knowledge work (Diehl et al.), and cartographic compositions they engage with and produce.

Through the dissertation, I add to the histories and theories of geographic maps in rhetoric and composition by outlining their socio-cultural and historical contexts through textual analysis from interviews and materials gathered from participants, participants who work intimately within rhetorical situations of map-making. Consequently, in this dissertation I explore literacy practices of individuals, that is, grassroots cartographers, not yet explored in rhetoric and composition, thus expanding the repertoire of voices represented in the field (Sullivan). By doing so, and like Deans, Cushman, Flower, and Searls Giroux, I advocate for
scholars within the academy to look beyond the academy’s borders in order to enrich research and pedagogical practices. Specifically, I advocate for continued outreach beyond the academy’s walls in order to enrich understandings of multi-layered literacy practices rooted in civically-situated rhetorics. However, I make this argument by also linking cartographers’ literacy practices to the pedagogical praxis of writing instructors engaged with teaching their students about geographic maps, diverse literacies, and civic rhetorics. This research is conducted from a feminist standpoint, and thus addresses Royster and Kirch’s desire to expand rhetorical elements and properties, and also addresses Addison’s call to pay attention to “what we can know, how we can know, who can know, and who can speak what we know” in rhetoric and composition. By addressing Addison’s call, through this particular project I also sought to demonstrate another way in which feminist empirical research can operate in rhetoric and composition.
CHAPTER 2.
A RESEARCH ALIDADE\(^4\): METHODS AND METHODOLOGIES

1. Introduction

For many people, including me, there is a strong desire to understand how others make their work. Take, for example, the artist statement that condenses the artist’s process into a paragraph or so, yet which an audience hungers to read in order to have a glimpse into an act of creation. Even more fundamentally, one can read a cookbook, or observe the ingrained practice of an experienced cook, to understand how a loaf of bread is shaped and baked. Specifically for this project, as a rhetoric researcher and a writing teacher, I wish to know how cartographers make their maps and how other teachers incorporate maps in their pedagogical practices.

Three important concepts that frame how work is made are collaboration, method, and audience. Often work, including knowledge work, is made in collaboration. In addition to the artist, the cook, and the cartographer who learn and labor with mentors and critics, there are collaborative processes amongst auto factory workers, teachers and students, or researchers who rely on participants and advisors when composing a research project. The act of collaboration is frequently rendered invisible, especially when a product is the outcome, but collaboration is key in understanding the making of things, theories, and praxis. The methods utilized must be communicated to understand how something, including meaning, is made, but this communication is dependent on audience. For instance, I am interested in how ideas are fashioned and things are made, but when understanding how Earth was formed, for example, I am an audience that needs a popularized, non-specialist presentation of such information. For

\(^4\) An alidade is a sighting device used to determine directions and thus, in addition to being an antiquated tool in geography and a lovely word, is used metaphorically here.
the purposes of the dissertation, though primarily situated within an academic context, I hope to communicate my collaborations and methods to a diverse audience, especially as not all of my participants are in academia.

My interest in the creation of knowledge work draws me to research methods and methodologies as both practice and theory, meaning I am interested in methods and methodologies as a research specialization as much as the labor of the doing, the praxis. The question of how is integral to rhetoric and composition: those of us in this field want to understand how writing is done, how agency is formed, how meaning is made, and more. Reading how other researchers conduct their research is one of my favorite parts of examining literature from the field. In turn, I aimed to be deliberate in choosing, designing, and enacting methods and methodologies for this research project, especially as I considered collaboration, audience, and positionality and standpoint.

To begin this chapter, I want to clarify for a varied audience not only principal aspects of my research praxis, but also how this chapter on methods and methodologies is structured. To begin, a feminist methodology primarily guides this dissertation, while teacher research and grounded theory are corresponding methodologies. Methods that complement these methodologies—namely interviews, textual analysis, narrative inquiry and citation practices—were chosen to explore my research questions and to analyze the resulting data. Based on these methods and methodologies, this dissertation is largely an empirical-qualitative research project because, as Bob Broad writes, the data is primarily about participants’ lived experience. This data is also analyzed in an interpretive manner, though there is certainly a textual-qualitative aspect to the project as well (Broad 199). The chapter begins with a look at the scholarship that informs my methodologies, including a commitment
to build reciprocal relationships with my participants, relationships that honor an ethics of care while also acknowledging the complexity of power between researcher and participants. I then move on to describe the qualitative methods used for collecting, analyzing, and reporting my data, and I outline the connections between research questions and the corresponding methods that address each question. Later in the chapter, I include brief descriptions of my participants and the reciprocal relationships I have attempted to build with each of them. The chapter concludes with a section on the limitations of my methodologies and methods, and with a look forward to the next chapter.

2. Methodologies

Gesa E. Kirsch writes that research in composition and rhetoric “invites methodological pluralism” and that this is due to the breadth and depth of the types of research questions posed, the interdisciplinary backgrounds of researchers, and the diverse background of the field itself (“Methodological Pluralism” 255). When developing this research project, I was able to clearly identify feminism as a point of origin for my research methodology due to a partnering of my research stance (which I will later address in greater detail) and my research questions. Jeffrey T. Grabill writes that “methods should follow stance” (217), and it seems as though methodology, too, grows out of a nuanced understanding of a research stance and what type of knowledge is being sought or questioned in a project. Therefore, because I identify as a feminist researcher who values social and material (Almjeld and Blair; Blair; Schell) conditions of people and places; whose feminism is informed by material and cultural theories; and because I ask questions about the rhetorical and pedagogical practices of marginalized, including educator, populations, I developed and practiced feminist, teacher research, and grounded theory methodologies in this project. While each of these
methodologies stands on its own, there are also overlapping factors that allow for a research process that is, if not always smooth, compatible.

Importantly, Kirsch also notes, “I argue that methodological pluralism is possible if researchers bring a critical self-awareness to their studies and explicate—rather than gloss over—the epistemological issues implied by their research methods” (“Methodological Pluralism” 248). Therefore, while interviews, textual analysis, narrative inquiry, and citation practices, and a coding system derived from grounded theory are methods that work with each of the methodologies I have chosen, I am critically aware of, and even transparent with, the limitations of these methods and methodologies, as much as I am aware of the possibilities they create. This self-reflexivity (Almjeld and Blair; McKee and Porter) is also a practice that appears in feminist, teacher research, and grounded theory methodologies, and so the intent to engage with it from the moment the methodologies were selected reinforces a sound habit carried through the research project. Being critically self-aware as a researcher also asks that I consistently worked to incorporate feminist, teacher research, and grounded theory beliefs as guides throughout the dissertation, not as trivial components that disappear once the research begins. Finally, self-reflexivity asks that I work to make each methodology function together as much as I allow for moments of friction when one is privileged over the others at different points of the research.

2.1 A Feminist Methodology

In the following sections I flesh out my understandings and applications of feminist theories and praxis that emerge in and beyond rhetoric and composition research, though not all of the scholars I cite identify as feminist. Namely, I address positionality and identity politics as shaped by a feminist research stance I have cultivated and by feminist standpoint
theory, an epistemological touchstone for this project. Within my address of positionality, there is also special attention to the act of self-reflexivity. From this point, I continue by briefly touching on the feminist methodological concepts of strategic contemplation and critical imagination, and I conclude by addressing perhaps the most crucial aspect of this feminist methodology: developing and fostering relationships through acts of reciprocity, transparency, and flexibility.

2.1.1 Research Stance and Self-Reflexivity

A feminist methodology serves as the umbrella under which teacher research, grounded theory, and my research methods fall in this project. This methodology speaks most closely to my ideological self. While I also identify as a teacher researcher, I associate as a feminist across the multiple intersections of my identity. Regarding identity and its evolving factors, a feminist methodology, like some other methodologies, also emphasizes the need for me to make clear my research stance. In “Community-Based Research and the Importance of a Research Stance,” Grabill writes, “A stance should be understood as a position or a set of beliefs and obligations that shape how one acts as researcher” (211) and “…stance is an identity statement that enables a researcher to process methods and make decisions” (213). For many feminists, it is critical to acknowledge ones beliefs and responsibilities that result from her socially situated position as a rhetorical agent (Ratcliffe 52). Thus, it is important for feminist researchers to do something with this identity statement, to take rhetorical action with their research. Furthermore, it has become common practice for feminists in and outside of rhetoric and composition to state their positionalities—who they are and where they come from—in their scholarship.

However, in “Beyond the Personal,” Gesa E. Kirsch and Joy S. Ritchie cite Adrienne
Rich as calling on feminist researchers to do more than practice “superficial reflexivity”; rather, a researcher should explore the multiple and sometimes contradictory or conflicting positions that inform who she is and what her research is about (142). Therefore, while I identify as a middle-class white woman in the United States who employs a framework of intersectional forms of oppression and empowerment, and who wishes to practice rhetorical listening, or assuming a position of openness to listen to “any person, text, or culture” (Ratcliffe 1), I consistently attended to these stances throughout the dissertation in order to negotiate my “always evolving standpoint(s) with those of others” (Ratcliffe 34) and so I could move beyond Rich’s “superficial reflexivity.” This is especially true when reflexivity, as addressed by Kirsch, but also addressed by Heidi A. McKee and James E. Porter, is so critical to both feminist and rhetoric and composition practices, and especially where the two overlap.

### 2.1.3 Feminist Standpoint Theory

After addressing my feminist identity and beginning to outline my feminist research stance, I must turn outward even more so to address the scholarship—both feminist and not feminist—that influences my feminist methodology. For example, I believe that intersectional feminist epistemologies and practices recognize the importance of making equitable space for all people, not always just women (McKee and Porter 154; Bost 364). However, my position as a woman, and my desire to include voices of women in this project, are central realities and goals of this dissertation. Because I am interested in listening to and making space for marginalized voices—including women—in my work, I find feminist scholarship by such academics as Sandra Harding, Jacqueline Jones Royster and Gesa E. Kirsch, Joanne Addison, and McKee and Porter, among others, formative in developing my own feminist research
methodology. Harding’s feminist standpoint theory, for example, outlines “start(ing) from lives of people in the exploited, oppressed, and dominated groups” (268) and serves as a theoretical backbone for this project. My research participants are representative of intersectional communities that straddle different spheres of oppression and power, including spheres of race, gender, class, educational backgrounds, and nationality. The desire to study the narratives of places and people who are often marginalized in spaces (civic, institutional, historical, private) and texts (namely maps for this project) is complementary to Harding’s feminist standpoint theory, and serves as a touchstone for me as a researcher as I work closely with people and texts, and across spheres of power, in this dissertation.

Like Harding, Addison highlights the goal of feminist scholars to look at the lives of women and “other subjugated groups.” Addison writes about how this goal should operate within and beyond the immediate scope of the research, including how feminist researchers should test what is at times expected of feminist research. She writes:

…the goal of feminist research is not primarily to reclaim, establish, or invert but rather to challenge the empirical evidence placed before us and used to further the inequality of women and other subjugated groups of people. Feminist rhetoric allows us to ask questions that have not previously been asked as well as to posit theories and conduct research that would otherwise remain unimagined. (138)

Therefore, the research I conducted in this dissertation is meant to offer alternative perspectives not only in how knowledge is made, but also how communities and stories are crafted, how ideas and skills are developed, and how practices of resistance are possible and apparent in the work my participants and I engage with. Therefore, by posing particular questions and developing theories that derive from my data, the research conducted in this
dissertation is meant to contest evidence of how geographic maps often represent people and places, challenge how people and communities can resist marginalizing representations and material realities by creating geographic maps, and complicate how civic rhetorics and literacy practices can be taught in the composition classroom.

2.1.3 Strategic Contemplation

In their book *Feminist Rhetorical Practices: New Horizons for Rhetoric, Composition, and Literacy Studies*, Royster and Kirsch outline numerous feminist practices that appear in the field. One of the most influential for me as I developed a feminist methodology is strategic contemplation, or processes of “meditation, introspection, and reflection” (Royster and Kirsch 84) and “thinking, writing, thinking, writing” (Royster and Kirsch 86) where researchers engage with dialectical thinking and dialogical viewpoints (Royster and Kirsch 86, McKee and Porter 156). Strategic contemplation is critical to my research praxis because it encourages thoughtful, recursive writing that returns to the participants and to the data in order to build knowledge. This is a similar process as grounded theory, a methodology I used to code and to analyze data in my research and that I explore more closely later in this chapter. Both strategic contemplation and grounded theory are reflective of feminist goals of working from the bottom, or the grassroots, up and across. Rather than being oriented toward imposing theories or hypotheses on to research processes and findings, the recursive and dialogical nature of strategic contemplation, and grounded theory, allows for theories and findings to emerge from the research process. Strategic contemplation is thus informative as I developed and practiced a feminist methodology coupled with teacher research and grounded theory that returned to interviews with and materials developed by my participants, and as I returned to the coding, analysis, and writing
related to these sources of data.

### 2.1.4 Critical Imagination

Critical imagination is another feminist methodological concept named by Royster and Kirsch that I find invaluable. This concept promotes “think(ing) between, above, around and beyond this evidence to consider what might be possible (not capital “T” true) from this evidence” (Royster and Kirsch 71). Critical imagination is important to my research because, for one, I aimed to work against the idea of geographic maps as representing “capital ‘T’ truth” and thus this practice complements this overarching research goal. Additionally, in this research project I attempted to resist the notion of any capital “T” truth, even with my own research process, as I rather hoped to communicate truths as experienced by my participants and by myself as a researcher. This pluralized conception and representation of truths is supported by Royster and Kirsch’s critical imagination, and Addison’s commitment to challenge evidence and framing questions, as I approached my data and research process with a goal of complicating findings in productive ways. This approach was done, for example, by means of triangulating data with co-interpretations (Newkirk, McKee, and Porter) of the data by research participants, and by “laying down” (Ratcliffe) texts and other forms of data “one against another” (Royster, “When the First Voice…” 556) to rhetorically listen to the data and to develop findings.

### 2.1.5 The Crux of the Praxis: Developing Relationships

Perhaps the most important aspect of my feminist methodology was developing relationships with research participants. There are different ways that I developed these relationships, including acknowledging dynamics of power between myself and my participants through what McKee and Porter name as critical reflexivity (156), what Susan C.
Jarratt calls “working beside herself,” and what Nancy A. Naples describes as “negotiat(ing) the power imbalance between the researcher and researched” (3). For example, it was important for me to consider my position as an academic working with participants who are not currently in the academy, or who currently occupy various positions within the academy. (Also noteworthy, while all of my participants have bachelor degrees, some have masters or doctoral degrees, and some are or have been professors, not all of the community members these participants work with have access to higher education). Informative to me in negotiating such multi-layered experiences and relationships is the work that Aaron Knochel and Dickie Selfe write about when they address the productive tension between academic and community partners. These tensions can include not speaking the same discourse and, as a result, misunderstandings in terms of needs and abilities. In order to ease such tensions, I attempted to keep my language as straightforward as possible when conducting interviews and when sharing my analysis of the data collected from interviews. I also tried to clearly explain any necessary field or project-specific language that arose during the interviews and that appears in the analysis. Furthermore, my participants, particularly the grassroots cartographers, came to the research with their own discourses—even first languages other than English—and thus I attempted to negotiate my own understanding with the discourses and primary language backgrounds the participants brought to the research. There is a messiness to this process of negotiating power dynamics, which I attempted to embrace because it is representative of the truths and plurality that emerge across my participants’ lives and experiences.

Thomas Deans also discusses the different relationships academics can form with community partners, or, in my case, research participants, including writing for, with, and
about participants. Each of these types of potential relationship-building activities involves different expectations, abilities, and systems of power. As a feminist writing scholar and researcher in this project, I wrote for, with, and about participants in different capacities throughout the research project, and I wanted to keep these types of writing and relationships as balanced as possible with my participants. I therefore practiced co-interpretation with my participants when writing for and about them. As for writing with my participants, though this does not make up any bulk of the final write-up of the research project, any co-written representations of the participants and their ideas is a means of this writing with.

2.1.6 Reciprocity

In their essay on feminism and interviews as a research method, Gail E. Hawisher and Cynthia L. Selfe write that reciprocity is a practice of shaping information with others, a practice “fundamentally influenced by the material realities and situated perspectives” of all involved that “challenges… conventional understandings [and] power relations” (37). Hawisher and Selfe’s concept of reciprocity recognizes participants as co-producers of knowledge while, like Knochel and Selfe, the concept also recognizes the uneven nature of research-based relationships. For example, both researcher and participant are often experts of different subjects, and the reciprocal relationships they build should acknowledge these different levels of expertise in order to share and learn from each other. This type of reciprocity acknowledges “material realities and situated perspectives” and makes these factors transparent during the research, as well as when the research is presented. Deans’s ideas of writing for, with, and about community members, or research participants, could also be viewed as a form of reciprocity, a method I practiced when I wrote for and about two of my research participants per their request (which I discuss in the participant section later in the
chapters).

**2.1.7 Flexibility and Transparency**

As a feminist researcher, I am also committed to developing what McKee and Porter call flexible and transparent relationships with participants (156). In order to be transparent, I created a private research blog that only my participants had access to. On this blog are the interview transcripts, research notes, and preliminary findings from the research. Access to the blog allowed my participants to see how I interpreted data derived from participant-generated knowledge production, and how I represented them and their ideas in my analyses. I communicated to my participants that I welcomed their feedback about this information so that I could accurately represent them in the way they wished to be represented. Thus, not only were my participants invited to be co-producers of knowledge, but I attempted to be transparent with them about directions in which the research was going. Granted, I also wanted to be flexible with my participants as McKee and Porter, and as Kirsch (*Ethical Dilemmas*), encourage, and therefore while I provided participants the opportunity to be co-interpreters, I did not expect the participants to give up any more of their time to do this work. Finally, in addition to being transparent with my participants, throughout the dissertation I attempt to be transparent with my readers by clearly stating my position as a researcher, the limitations of the research, and by outlining how the research was conducted. This idea of the researcher being transparent for both the readers and the participants also appears in Kirsch and Ritchie’s “Beyond the Personal,” and this dual-layer of transparency helped me negotiate my rhetorical position as a researcher aiming to respect all parties that are part of the research project.

When building relationships with research participants in order to establish a feminist
methodology, the work of McKee and Porter, Jarratt, Ratcliffe, Kirsch, Naples, Knochel and Selfe, Deans, and Selfe and Hawisher was informative because I wanted to practice research in a less hierarchical fashion while still acknowledging the different positions of power between myself and the participants I worked with. The arguments about relationship-building by these scholars serve as a heuristic for how to bring my skills as a feminist writing scholar not only to my research project but also to my participants in a way that might benefit them. Additionally, the work of Harding, McKee and Porter, Addison, and Royster and Kirsch helped to establish a feminist standpoint for this research practice. In addition to developing knowledge that benefits the field, and ideally my participants, a primary objective for this dissertation is to practice “careful and respectful” (McKee and Porter 155) research, which a feminist methodology allows me to do.

2.2 A Teacher Research Methodology

Like the critical practice of feminist researchers, teacher researchers also adopt and communicate their research stances, and what informs these stances: “Just as important in teacher research… are the practices, assumptions, values, and beliefs of the teacher(s) and/or researcher(s)” (MacNealy 243). Because they share several baselines, feminist research and teacher research are often paired together when written about across fields (Christianakis in education; Coffey and Delamont in sociology; and Howes in science as three examples), and when practiced specifically in rhetoric and composition (Ray, The Practice of Theory; Nickson; Siebler; Addison and McGee). There are enough similarities between the two to see why, together, they may effectively support research processes: there is a mutual concern with ethics (Nickson), collaboration (Holmsten 42; Kantor 64), and narratives as forms of data (Ray, The Practice of Theory 42–43; Holmsten 42). For example, Mary Sue MacNealy writes:
Both [feminist and teacher research] assume that subjective data is valuable, that research should be carried out as naturalistically as possible in real life situations, and that data collection and analysis must be collaborative rather than a hierarchical effort so that the distinction between researcher and research subject is blurred, if not obliterated. (233)

Because of my feminist standpoint and because of a teaching philosophy that recognizes and values the inherent subjectivities we each inhabit, this merging of feminist and teacher research practices makes sense to me. And while I attempted to negotiate hierarchical power dynamics in my research (and my teaching) through collaboration and shared knowledge-making, I recognize the limitations and messiness of such efforts. However, a combined feminist and teacher research methodological framework seems fitting for a research project that asks questions about everyday mapping, civic rhetorics, and literacy practices in and out of the classroom.

Like feminist epistemologies and practices, a teacher researcher methodology also attempts to equalize and make transparent how knowledge is produced. For example, in “Teacher-Research Point of View,” Ruth E. Ray writes, “Teacher research demystifies and democratizes knowledge making” (174). By interviewing writing instructors to hear their narratives and by analyzing their teaching materials and student compositions, in this project I attempt to demystify how writing instruction can be done, particularly in regard to concepts of mapping, literacy practices, and civic rhetorics. And by incorporating the voices of these instructors, inviting them to co-interpret my findings, and by showcasing student work, I attempt to democratize a representation of knowledge making. Furthermore, by collecting narratives from grassroots cartographers about their literacy processes, and by laying these
narratives alongside those of the writing instructors, I theorize how everyday practices in and beyond the composition classroom can complicate notions of writing instruction. Narrative is a powerful way to demystify and democratize because it signals the importance of individual lives and voices. For teacher research, “Narrative is our starting point and the base of our knowledge, but we must avoid uncritical narratives that prevent thoughtful reflection” (Holmsten 42); therefore, like the self-reflexive practices advocated by feminist researchers, communicating my participants’ narratives without careful attention would do more harm to the equalizing notion of knowledge production and so I critically engage with the narratives incorporated in the dissertation.

As a researcher who did not research her own writing classroom, I am especially aware of what I asked of my writing instructor participants (time, self-generated materials, trust), and therefore I am attentive to the ethical issues that surround such gestures of generosity. Because their participation in my research project is what allowed my project to happen and afforded me the privilege of exploring questions I am curious about, I respect the stances these instructors inhabit, I honor what I have learned from them, and I value the lived experiences they bring to their instruction and to my research.

2.3 A Grounded Theory Methodology

Like Kerrie R. H. Farkas and Christina Haas write, an overarching goal for me in using grounded theory was to “attempt to make explicit the relationship of data and theory and to show in a fine-grained way how a substantive grounded theory in the realm of writing research can be built from qualitative data” (85). As a qualitative research practice that generates new theory from data (Birks and Mills 2), I believe grounded theory complements my methodological framework. Though rigorous and systematic, grounded theory is also flexible
(Charmaz 2) and subjective, much like feminist research. Thus, with grounded theory applied to my research, I could identify the distinctive, yet overlapping, patterns of literacy practices by grassroots cartographers and writing instructors. Therefore, through a structured process that is attentive to emerging rather than pre-hypothesized findings, I drew conclusions primarily from information provided by my participants. Thus, the participants are understood as central knowledge producers in a research project that supports a methodological framework concerned with starting from the lives of marginalized and everyday people, as well as accounting for relationships comprised of different power dynamics. Grounded theory thus attempts to shift the power so that the researcher is not the only authority in the research project by acknowledging the lived experiences of all contributors to the research project.

Additionally, as part of grounded theory I read multiple texts to deepen and broaden my research findings. Some of this research included online texts, such as digital maps and reports regarding the maps, that the grassroots cartographers produced, and some are materials generated by writing instructors and their students. These additional texts complicate and complement the information from the research participants’ interviews. I then analyzed these data inscriptions (Roozen) and, while still collecting data, I could “separate, synthesize, and sort these data” (Charmaz 3). This process of separating, synthesizing, and sorting was organized according to the guidelines outlined in Johnny Saldaña’s work on in-vivo coding, a type of coding that seeks to attend to marginalized voices by using the language of these voices. Grounded theory allowed me to sift through the stories that arose in the interviews and the information embedded in the supplemental texts, interpret the material, and then systematically categorize different literacy practices that emerged from these origins of data. I was also able to categorize the exigencies for these practices as connected to civic rhetorical
practices. Furthermore, this method allowed me to identify civic rhetorical practices that were implicit or explicit in the data, and thus I was able to address my research question in a careful, methodical fashion.

3. Aligning Questions with Methods

The relationality between research questions, methodologies, and methods cannot be emphasized enough. Therefore, to outline the relationships between the research questions posed in chapter one and my guiding research practices, what follows is a table that lists each research question while also demonstrating the corresponding methods of data collection and analysis. This table served as an organizing principle for me as I conducted the research, and it is also meant to create transparency for an audience curious to see how the research is executed.

Table 1 Table of Research Questions and Correlating Research Methods

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Method(s) of Data Collection</th>
<th>Method(s) of Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the exigencies and purposes for grassroots cartographers to make geographic maps?</td>
<td>• Interviews with grassroots cartographers (research participants)</td>
<td>• For interviews: <em>interpretation</em>(^5) and <em>textual analysis</em> of transcripts, using grounded theory in-vivo coding</td>
</tr>
<tr>
<td></td>
<td>• Textual research of grassroots cartographers’ mapping and intertextual materials</td>
<td>• Additionally, for interviews, <em>participant feedback</em> on transcripts and analysis to challenge and/or complicate findings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• For online research, <em>interpretation</em> and <em>textual analysis</em> using grounded theory coding</td>
</tr>
</tbody>
</table>

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\(^5\) See Bob Broad’s “Strategies and Passions in Empirical Qualitative Research,” in Lee Nickoson and Mary P. Sheridan’s *Writing Studies Research in Practice: Methods and Methodologies.*
Based on these exigencies and purposes, what are some of the literacy practices of grassroots cartographers?

- Interviews with grassroots cartographers (research participants)
- Textual research of grassroots cartographers’ mapping and intertextual materials

For interviews: *interpretation and textual analysis* of transcripts, using grounded theory in-vivo coding
- Additionally, for interviews, *participant feedback* on transcripts and analysis to challenge and/or complicate findings
- For online and textual research, *interpretation and textual analysis* using grounded theory coding

Specifically, how do these literacy practices of grassroots cartographers create a form of civic rhetoric(s)?

- Interviews with grassroots cartographers (research participants)
- Textual research of grassroots cartographers’ mapping and intertextual materials

For interviews: *interpretation and textual analysis* of transcripts, using grounded theory in-vivo coding
- Additionally, for interviews, *participant feedback* on transcripts and analysis to challenge and/or complicate findings
- For online and textual research, *interpretation and textual analysis* using grounded theory coding
How can grassroots cartographers’ literacy practices inform civic pedagogies in the composition classroom?

- Interviews with writing instructors (research participants)
- Textual research of instructors’ teaching materials
- Interviews with grassroots cartographers (research participants)
- Textual research of grassroots cartographers’ mapping and intertextual materials

For interviews: interpretation and textual analysis of transcripts, using grounded theory in-vivo coding
- Additionally, for interviews, participant feedback on transcripts and analysis to challenge and/or complicate findings
- For online and textual research, interpretation and textual analysis using grounded theory coding

As Broad writes, “rhetorical contexts should drive methods and that the most effective research methods in any given rhetorical situation… will depend on the specifics of that situation” (200). During the research and writing process of the dissertation, I aimed to select methods that best matched the rhetorical situation of the research project as formed with and beyond my intentions. Throughout this praxis, I was attentive to the specifics of this particular rhetorical situation knowing that such specifics affect not only findings, but also the people and praxis involved in the project.

4. Research Participants

This section briefly introduces my participants, including how I learned about, met, and contacted each one. The sub-section for each participant also discusses the reciprocal relationship I developed or at least addressed with each person. While chapters four and five go into further detail about the cartographic and pedagogical work of the participants, I include this section in this chapter because my participants are critical to the data I collected through the methodologies and complementary methods I utilized in this project.
4.1 Aaron Carapella

I first learned about Aaron on a National Public Radio Code Switch story. The story was about a man named Aaron Carapella who makes what he calls “pre-contact maps,” or maps of the United States that show roughly where indigenous tribes were located and what the tribes called themselves before Europeans colonizers arrived en masse in the late 1400s. Because I am interested in maps that speak back to dominant narratives in order to reclaim and make more widely known particular cultural and knowledge practices, this cartographer, his subjects, and his work appealed to me greatly. Because the Code Switch story included a website for Aaron and his maps, I was able to find an email address on the website. After emailing Aaron and explaining my research project, he agreed to be interviewed; the interview was just over an hour long and was conducted over the phone. Aaron identifies primarily as white, though he is also part American Indian, and he also identifies as an activist and historian, though his post- secondary background is in business and marketing. The Code Switch article identified him as in his 30s, and he now lives in Oklahoma. My reciprocal act for Aaron was to write a testimony about his work to post on his website. Aaron and I have since become mutual followers of each other on Facebook and Twitter.

4.2 Will Skora

I met my Will in April of 2014 at a State of the Map conference run by the non-profit group Open Street Map. I attended the conference not only to learn more about discourses of cartographers, but also to meet potential interview participants. Will overheard me speaking to a presenter about my research project and in turn he told me about the OpenGeo mapping group he runs in Cleveland. In the summer of 2014, I attended one of the OpenGeo Cleveland meetings led by Will to learn more about basic mapping literacies, and to reaffirm my interest
in the cartographic work Will does. From this meeting, Will agreed to be interviewed and so we conducted an hour-long phone-based interview. Will is a college-educated white man in his late 20s who lives in Cleveland, Ohio. As my reciprocal act for Will, he asked for suggestions for writing processes, which I researched and provided him via email. I follow Will on Twitter.

4.3 Hassan Pitts

I met Hassan through personal connections. Hassan worked at Bowling Green State University as an adjunct instructor in the Film and Theater Department. Hassan is an interdisciplinary artist who has used and made maps in and for interdisciplinary—though primarily film-based—art projects. I interviewed Hassan for an hour using Skype. Hassan is a master’s-level college-educated black man in his thirties. Though Hassan was informed of my reciprocal intent for each of my research participants, we have not yet determined what this would be. Hassan and I are friends on Facebook.

4.4 Hagit Keysar

Hagit is an Israeli citizen and a doctoral student in the Politics and Government Department at Ben Gurion University in Jerusalem. Hagit is also a participant in the Public Lab community where she learned about digital mapping. She combines this skill of digital mapping with her background in photography and her interest in aerial photography and activism. Having read several of Hagit’s articles about her work with Public Lab on the Public Lab website, I reached out to her via email to see if she would be willing to participate in an interview. Because Hagit is also currently working on her dissertation, which looks at three case studies of community mapping projects she is involved with, Hagit said any research materials I could send her, especially any about Public Lab, would benefit her. I sent
her a handful of articles, and will continue to do so as I discover them.

4.5 Faith Kurtyka

I briefly met Faith Kurtyka in 2008 when I was a fellow at the Southern Arizona Writing Project and she a doctoral student in the Rhetoric and Composition and the Teaching of English program at the University of Arizona. Kurtyka has since graduated and is now an Assistant Professor of English at Creighton University in Oklahoma. I follower Kurtyka on Twitter and in December 2014 I saw her tweet about a mapping project she had taught her students. Intrigued, I explored the tweeted link to the mapping project her students had completed. Once I secured an exempt status for my HSRB modification, I contacted Kurtyka about an interview. After conducting the interview and explaining my interest in doing something for her because of the time and knowledge she shared, Kurtyka explained that because so many people had been generous to her during her own dissertation process, that she was happy to contribute to my dissertation and research now. Because of Kurtyka’s position as an academic scholar, I refer to her, and Ashley Holmes, by last name throughout the dissertation.

4.6 Ashley Holmes

I was connected to Ashley Holmes through Kurtyka, as Kurtyka had developed her mapping assignment from an assignment of Holmes’. Holmes is an assistant professor in the Rhetoric and Composition Program at Georgia State University in Atlanta. She teaches both undergraduate and graduate courses, though she primarily teaches undergraduate students, including honors students. Like Kurtyka, Holmes is a white woman with a PhD in English with a specialization in Rhetoric and Composition from the University of Arizona. After conducting the interview and explaining the reciprocal nature of my feminist methodology,
Holmes said she would be interested in seeing my bibliography for the dissertation, and possibly putting a CCCC panel together in the future as we have similar research interests.

5. Methods

From my engagement with feminism and teacher research, I practiced a number of qualitative, empirical methods (interviews, interpretation, textual analysis that includes online research, narrative and citation practices) compatible with the highlighted methodologies that guide this project. What follows is a closer look at these methods and how they contributed to the research.

5.1 Interviews

As part of the data collecting for this grounded theory process, I was most interested in conducting interviews with different research participants. Interviews offer a sense of humanity to the data for the researcher and, if conducted and written well, for the interviewee and the readers of the research as well. Though Kirsch (“Friendship…”) emphasizes the messiness of interview as a method, she also confirms that interviews offer “increased collaboration, greater interaction, and more open communication with research participants” (136). For this research project, I believe scripted yet semi-structured interviews increased collaboration and communication with participants so that the data became richer. For example, though my scripted interview questions sought to elicit answers about civic rhetorics and literacy practices and their exigencies, at times the open nature of the interviews provided me with information I did not anticipate. Further, more open-ended interviews allowed for stories to be shared, and these stories deepened the data that I collected; or, as Gabriele Griffin writes, “The less structured an interview is, the more participatory it can become…” (182). The interactive nature of collaborative and semi-
structured interviews is thus an endeavor complimentary to my methodological framework precisely because of these elements. Collaboration and communication are key components in establishing positive relationships, and if I am interested in methodologies that emphasize such beliefs, it is important to practice healthy relationships with participants that are part of these communities.

5.2 Textual Research and Analysis

Because grounded theory is a form of textual analysis and interpretation, it is critical that I have strong materials, including textual materials such as those found online, to guide the coding and analysis process that is grounded theory. In addition to analyzing interview transcripts—as well as the notes and memos that accompany the interviews, and the audio recording of the interviews—I also used textual analysis to study materials generated by my participants such as maps, course assignments, and articles about mapping. On textual analysis Mary Sue MacNealy writes, “analysis… means the use of systematic methods of study, including empirical techniques such as carefully defined populations of interest (e.g. essays written by grade school children or articles reporting on research in technical communication), carefully selected representative samples and clearly defined procedures for collection and interpretation of data” (124). The maps, related writing pieces, and course materials from my participants stem from the defined populations of interest and the carefully selected samples that MacNealy outlines. And while McKee and Porter (“The Ethics of…”) write about the ethical dilemmas that some researchers face when dealing with digital texts, especially around issues of authorship, I have either been directed to these materials by my participants, or have found these materials in my own research and know them to be generated by my participants.
5.3 Citation Practices

A key component of feminist research is what Sara Ahmed, in her blog *Feminist Killjoys*, calls “the politics of citation,” and what bell hooks refers to as the power of citation practices (62). Both feminist scholars discuss the importance of citing scholars who are not just white men in one’s research, so that different voices are heard and different knowledge produced, reproduced, and circulated. This is not to say that what white males write or say is not valuable: I cite several white men in my dissertation, and two of my participants identify as white men. Rather, intentional citation practices open up my research to exciting possibilities while also honoring a scholarly heritage of often marginalized people who do critical, groundbreaking work. Therefore, while the dissertation is bound by a disciplinary and genre-specific expectation of creating a literature review representative of the field, I have found it a natural, yet intentional, practice to incorporate a wide range of voices into my research.

5.4 Narrative Inquiry

Finally, in this project I engaged with narrative practices, including narrative inquiry, and formulated different moments of my research project as literacy narratives as a way to craft stories of individual, local, and materially and culturally formed literacy practices. To illustrate this latter point, Debra Journet writes that the “… narrative is valorized as a way of paying attention to the local and specific characteristics of experience, particularly as they are situated in social and cultural contexts” (13) and David Schaaufsma, Gian S. Pagnucci, Robert M. Wallace, and Patricia Lambert Stock write that narrative inquiry research is “exploring the world by telling a story about it” (282). In addition to being a key aspect of feminist, teacher research, and grounded theory methodologies, narrative practices are related to the work my
participants engage with: attending to the social and cultural, the lived experiences, and the valued places of the people they map with and for.

Though literacy narratives in rhetoric and composition are often comprised of tropes familiar to our discipline (Jounet 16), an attention to the “little narrative” that Beth Daniell writes about can assuage any tendency to make grand claims about what all/any literacies can do. Rather, the literacy narratives I developed, which are based on my participants’ own literacy narratives, address specific literacy practices of particular individuals. For example, because my participants share stories about their literacy practices, and because these practices at times diverge and at times overlap, heeding Daniell’s call for “the little narrative” allowed me to look for patterns while also honoring unique culturally and rhetorically situated literacy practices in the write-up of the research. Literacy narratives are also a genre that often resists the stilted language that appears in some academic writing. In her own literacy narrative, Catherine Prendergast writes, “Literacy narratives do not strive to flatten… Despite the characteristic rhetorical gestures of the genre, each one offers a distinct and accessible story.” The literacy narratives I composed were written not only to be a pleasure to read, but also to represent the participants as holistically as possible. By developing a research project which aimed to echo the literacy narrative genre, and which encompasses literacy narratives of a small sampling of grassroots cartographers and writing instructors, I included much of the language, stories, and data directly from the participants in order to have a linguistically, stylistically, and intellectually rich final project.
6. Limitations

Though I carefully chose methods and methodologies that ethically guided this research project, there remain limitations to these efforts. For one, though bias, because of its relationship to identity and stance, is accounted for and even celebrated to a degree in feminist and teacher research methodologies, bias does limit my understanding of my participants’ experiences and knowledge, as well as the findings I derived from the data gathered from them. Bias also led to assumptions as I entered the research project, including the assumption that my participants knowingly or purposefully engage in civic rhetorical practices, or that my participants would want or concede to call their meaning-making practices literacy practices, even after I explained my definitions and intentions of such terms. To be certain, bias is one factor that highlights all that I did not know as I began and completed this research project, and though it is a limitation, it is also a reminder to carefully move forward in the research in an ethical manner.

Another limitation I faced as I conducted this project was specific to my teacher research methodology and to a related method that I do not engage with: that is, face-to-face observations. As mentioned earlier, I did not research my own classroom. Rather, I researched the pedagogical practices of other writing instructors. To complicate this, due to geographical constraints, I was unable to observe these instructors teaching in their classrooms. Though Nickoson, Stephen Fishman, and Lucille McCarthy, and Colin Lankshear and Michele Knobel expand the notion of what teacher research can look like, direct practice and observation are frequently considered key methods in teacher research. By not researching my own classroom, or by not observing another writing classroom, there was less immediacy to the materials, the impact on students, and the experience of teaching. As I learned from my research, there was
not the same type of self-reflexivity that I can immediately put into practice in my own classroom, as this learning did not stem from my own teaching. So while the interviews and teaching materials that were supplied to me by my participants were extremely productive, there remains a limitation to my teacher research.

While the idea of community is a critical thread throughout the dissertation, the concept of community was complicated by my insider/outsider position in relation to my participants. Nancy Naples describes the insider and outsider paradigm as a “false binary” (49) because it does not always acknowledge the complex relationships a researcher has with her participants and research site(s). For example, while I am an insider to the broader writing instructor and field-specific communities that my writing instructor participants inhabit, I am an outsider to their classrooms. Furthermore, though I am invested in the work that the grassroots cartographers do, and though I have made maps on my own, I remain an outsider to the communities these cartographer participants are a part of. Like the notion of bias, this insider/outsider position therefore at times limits my in-depth understanding of who my participants are, where they are coming from, and what the knowledge they share with me means.

There are also limitations to my most personally valued research method: the interview. Gabriele Griffin writes that showing transcripts of interviews to participants may become problematic if they think they are not being shown in the best light due to partial sentences uttered and other spoken language quirks that naturally emerge in interviews (192). I hoped to mitigate this potential limitation by keeping the entire transcripts accessible only to my participants, and by having participants review the excerpts of their interviews before being made public in the published version of the dissertation.
Additionally, there are also ethical issues that arise when conducting interviews, even for a researcher conscientious of ethical issues in research. For example, one ethical issue that may arise during an interview is that a “… [researcher] must take some care in how they present themselves and the framing of the interview questions so that subjects are not prompted into giving information that their searcher is hoping to hear” (MacNealy 241). This was something I struggled with, especially with the initial interview, as I worked to find my stride as a researcher leading an interview, and as I had some assumptions and expectations behind the research questions I posed. Despite this struggle, to alleviate some of the effects of the limitations of the interview, I attempted to present myself as a friendly, flexible professional who wished to hear what the participants wanted to share as much as I wanted to guide the interviews.

Finally, my attempt to practice a feminist standpoint theory is limited and limiting because the dissertation does not give equitable voice to my participants. Because of academic and genre expectations, the dissertation is not a co-authored work, nor is there a built-in infrastructure where I can work with my participants in a day-to-day manner. Throughout the dissertation, though, I attempt to leverage my position as the principle researcher and as the publicly presented sole-author of the project to provide a space for my participants to voice stories that may be marginalized in some mainstream and academic discussions. This certainly is not the case for all of my participants—a majority of participants already have access to and participate in mainstream and academic spaces. However, I wished to provide one more platform for the stories of my participants, and the stories of the communities they work with, to be heard.
7. Conclusion

The methods and methodologies outlined in this chapter served as a guide for me as a researcher to practice careful, respectful, and self-reflexive research, largely informed by collaboration. A feminist methodology, one initiated by a feminist identity and research stance, is the primary methodology, though teacher research and grounded theory are important methodologies that grounded me in the lived, habitual practices of my participants in and outside of the composition classroom. These methodologies reminded me to be attentive to how I collected and analyzed data relevant to each research question, and to be conscientious of how I presented the findings that emerged from the data. My choice of methodologies, and their inherent limitations, attempt to make the research process more transparent and flexible for myself, my participants, and my audience, while reminding all those involved of the biases we bring to our experiences, including the experience of this project.

Concepts and practices covered in this chapter serve as a bridge from the first chapter to the chapters that follow. In chapters three and four I apply the methodologies and methods discussed in this chapter by means of describing and theorizing the data I collected and analyzed, and in chapter five I make even more clear my theories of literacy practices and civic rhetorics by presenting my findings from the previous two chapters. Because of their critical importance, I continue to return to my methodologies and methods in an explicit fashion throughout the remaining sections of the dissertation.
CHAPTER 3.
MAPS AS SITES OF ENCOUNTER: GRASSROOTS CARTOGRAPHERS’ EXIGENCIES AND PURPOSES FOR MAP-MAKING

“I think on one hand it is totally playful. It is a way to re-imagine already conquered territory. It is also a way I think to subvert conquered territory at least in terms of what established maps are designed to tell you (and even transplant on to you).” -Hassan Pitts (Personal email)

1. Introduction

In the quote above, Hassan summarizes in a lovely way some of the reasons he and others make maps. This quote nicely captures a range of motivations, from the playful to the political. In this chapter, I introduce my cartographer participants in greater depth by describing a bit of their background and explaining some of their mapping projects. I also explore the reasons grassroots cartographers make maps. The purposes and exigencies of grassroots cartography are demonstrative of the kairotic mode of public rhetorics that David M. Sheridan, Jim Ridolfo, and Anthony J. Michel write about. Though in this chapter and the dissertation there are only four map-makers, I believe their mapping work is uniquely representative of personal motivations and global exigencies, and illustrative of trends and histories of cartographers and cartography. For example, when I explored the exigencies for map-making, a personal investment in political change emerged across participants’ responses. The political impetus for creating maps goes back centuries, as can be noted in the work of Walter Mignolo, Dennis Wood, and David Turnbull. A political impetus also guides the work of grassroots cartographers as is noted on the homepage of the Counter Cartography Collective. The opening lines read: “We work on mapping in order to:

• render new images and practices of economies and social relations
• destabilize centered and exclusionary representations of the social and economic
• construct new imaginaries of collective struggle and alternative worlds."

Though these factors signal my participants as part of patterns and histories of cartography, because of their particular positionalities, material realities, and labors, the participants and their map-making exigencies also remain distinctive. This balance of being attuned to both their own skills and identities, to global cartographic needs, and to historical cartographic practices allows for the grassroots cartographers to be responsive to the communities with whom they map. To begin the chapter, I go into greater depth to introduce the participants and their mapping projects. Then I look at my participants’ personal purposes and larger exigencies for mapping to understand the literacy practices they engage with to fulfill such exigencies. This contextual information illustrates connections between the participants, and highlights idiosyncrasies as well. To conclude, I foreshadow the literacy practices I explore in chapter four.

2. Who They Are and What They Do: Grassroots Cartographers and their Mapping Projects

2.1 Aaron

As mentioned in chapter two, Aaron is a white man who claims some Cherokee heritage. He grew up in Southern California and has since relocated to Oklahoma where the Cherokee Nation is located. Though further explored in the exigency section, Aaron’s interest in creating maps that represent pre-colonial Native histories was piqued when, as a teenager, he went to public powwows. At the powwows Aaron noted that none of the vendors sold such a text, texts
he viewed as “the only place you could reference true Indian history.” While I resist the slippery term “true,” and believe the powwows are part of Native history (even if compromised by para-colonialism and, at public dances, by a mixed Native/non-Native audience), as a researcher, teacher, and advocate for accessible public information, I can relate to the desire of wanting a visual and spatial text in which to reference information, particularly information that some may find difficult to locate elsewhere, such as the tribal names and approximate tribal locations.

Though it took over a decade for Aaron to create the initial map he now sells (see figure 5), an early prototype was sketched out as a teenager and then, over time, developed through archival research, community feedback, and the labor of a graphic designer, Jon D. Vanderveer, with whom Aaron partners. The first map Aaron created and sold was of the continental United States. Since then he has made maps of Alaska, Canada, Mexico, North America, and he plans on making maps of Central and South America. There are also “Special Run” maps with regional foci: Plains Indian Trails, for example, reservations, or tribes of the Pacific North West or Northern California. All of these maps are designed with the backdrop of a landmass, such as in the case of figure 5, what is now considered the continental United States. Therefore, while international borders are suggested, they are not officially delineated nor are any state borders demarcated because these borders would speak to a federal and para-colonial vision of the land and the people inhabiting the land, something Aaron is actively trying to resist. Additionally, while the map is called a “pre-contact” map and is represented statically, in our interview, Aaron clarifies that this map is representative of more than one year, namely the year 1491. Instead, the map is representative of several hundred years as different tribes came into “contact” with European colonizers at different times. In the
interview Aaron said:

It’s not really possible to make a static map that shows where every tribe was at a certain year. There is even some dispute among tribes themselves as to where they were before contact. There’s a general idea of where they could have been from because linguistically they might be related to certain cultural groups or they have oral histories of when they broke off and disbanded from other people and moved away from those areas. It’s really hard to be like, OK, this is 1491 and this is where every single tribe was in this exact place.

Fig. 5 “Native American Nations: Our Own Names and Locations,” by Aaron Carapella, 2013.

Though Aaron and his maps are widely celebrated in many of the native and non-native media pieces where I read about his work⁷, there remains some criticism of Aaron, his maps, and his rhetoric in making these maps. This criticism comes from Natives and non-

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Natives alike, primarily scholars, linguists, and journalists who either question Aaron’s research and source-based practices; his lack of background in cartography; his paradigm of location, language, and history that informs the maps; his tone surrounding the maps; the maps’ design; and the capitalistic component of the mapping project. Curious about his take on this criticism, I asked Aaron about it. In the interview, Aaron was generous in his response to his critics. For example, he said:

What’s happened is there are some Native academics, not really a whole lot, but a few, that I’ve noticed their basic idea is mapping our history is not a traditional venture. My response is to look at the alternative maps that have been made that are the only representation up to this point, which would be considered wildly inaccurate… Nowadays we drive cars, we speak English, we put on suits and go into business buildings. If we’re going to do those things and adapt in that fashion it seems only appropriate that we also take our own history and make a representation of that for outsiders and even ourselves.

My understanding of this statement is that while acculturation, both through forced assimilation and self-motivated methods of adaptation, has occurred with other cultural practices such as transportation and professional occupations, a few Native scholars, according to Aaron, do not find mapping, or at least his form of mapping, to be an appropriate, or perhaps an effective, means of acculturation or representation. This type of mapping is not “traditional” and therefore perhaps does further damage, or is unproductive, to Native communities who work to maintain and reclaim aspects of their cultures. However, as

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8 Debbie Reese’s “Aaron Carapella’s Map: Native American Nations-Our Own Names and Locations” article is critical, as are some of the comments from readers for this article and the NPR story. An entry on a Tumblr blog, “Aaron Carapella’s “Tribal Nations” Maps Do Not Do Justice to Indigenous Nations and Here’s Why,” and a thread on a Facebook group page, Native American and American Indian Issues, are also critical.
an action-based response to his critics, Aaron seems open to learning from them and incorporates their concerns as he updates his maps.

Though these concepts are further developed in the sections on literacy practices later in this chapter, I will note that Aaron seems to take feedback from Native and non-Native individuals seriously. For example, Aaron now attempts to have at least three sources to reference each tribal name, and he acknowledges the tremendous amount of information—whether through personal stories, out-of-print texts, or scholarly and cultural research and knowledge—he receives from people across the country that helps to inform his maps. On the home page of his website he writes, “I credit the many hundreds of Cultural directors, elders, educators and linguists that have helped me centralize these names onto one visual display,” and elsewhere on the site he writes, “I invite any and all feedback, suggestions and/or corrections! Let's build this together and reclaim our past!” While a list of names of his contributors would make the idea of community labor more visible, there is a sentiment of community commitment that runs through our interview, and through his website.

Beyond the critics responding to Aaron’s maps and to his Native self-representation, there are theorists in the field of rhetoric and composition who write about issues of power and representation, especially regarding American Indians. Malea Powell, for instance, writes how there is scant work on American Indians in rhetoric and composition and that “…much of it suffers from the burdens of a colonial mindset and a general lack of understanding about the diversity of American Indian cultures and histories on this continent” (397). Regarding Aaron’s work, some critics seem to believe that the Tribal Nations Maps perpetuate a “colonial mindset” and a lack of understanding of the diversity of “American Indian cultures and histories.” Though many tribes are powerful sovereign nations, there remain complex and
often negative representations and understandings of these nations in mainstream American discourse. Because geographic maps are powerful forms of representation which convey implications of power and stereotypes, it is important to consider the often colonial history of geography and how geographic maps are created, especially with often maligned populations.

Some critics also question whether Aaron is part Cherokee, which suggests a concern for an ethos of authenticity and subsequent consequences if this authenticity is false. Ellen Cushman writes about the rhetorics and consequences of American Indian authenticity and self-representation for Native scholars and those living in what she terms “Indian Country.” Consequences include “resources, positions, and authority…ascribed to those who claim to have such an identity” (Cushman 330). In the abstract for her article “Toward a Rhetoric of Self-Representation…,” Cushman develops her argument for what a rhetoric of self-representation means. She writes, “A rhetoric of self-representation can illuminate the systemic ways in which racial categories circumscribe us all; the ways in which identity for Native peoples is always about subjectivity enacted within kinship relations; and the ways in which we might compose identities while situated within antithetical exigencies” (321).

Cushman also writes about markers of authenticity and how native scholars, when challenged by other native scholars, are expected to “provide valid evidence of their identity claims” (328).

When applying this complex equation of race, relationships, and identity to Aaron and his mapmaking, several points emerge. One, it is important to remember that race, while having profound material consequences, is socially constructed. Therefore, when understanding how people represent themselves racially, both skepticism and acceptance can be productive measures. Two, because evidence, including evidence of tribal relations and
other “authenticity markers” is important for widely accepted claims of Indian heritage, I wonder less about the authenticity makers Aaron is missing to satisfy his critics and more about whether such markers might look different to the different tribal audiences who accept and who critique Aaron’s ethos. Finally, I consider the “antithetical exigencies” of both Aaron’s self-representation as part Native and his critics questioning this self-representation. In other words, what motivates Aaron to identify as Native, why do his critics question his identity, and what comprises the larger rhetorical situation that encompasses these exigencies? These points create a paradigm in which I can complicate, ideally in a productive matter, the maps Aaron makes and his ethos as a grassroots cartographer.

Furthermore, when I turn to my definition of a grassroots cartographer, Aaron fits the description because he has taught himself to visualize information using basic cartographic principles and, more importantly, his vision for his maps is to represent a marginalized demographic in a more accurate and public manner. However, this fit is complicated as there are power struggles related to representation, culture, and knowledge between Aaron, his critics, and the broader context of American Indian, colonial, and para-colonial histories. As I work with Aaron’s materials, I also want to clarify that Tribal Nation Maps are not monolithic representations of American Indian lives—whether contemporary and historical. By this I mean that Aaron’s maps represent narratives of American Indian histories as filtered through his terministic screen and are just one representation of these histories. Ultimately, I believe Aaron’s work—which he generously discussed with me at length—and the controversies surrounding it are productive for my own learning, and productive for this research project.

2.2 Will

As mentioned in chapter two, Will is a college-educated white man in his twenties who lives in Cleveland, Ohio. When discussing different terms for the kind of cartography work he
does, I brought up “grassroots cartographer” and “counter-cartographer,” and Will introduced me to the term “neo-geographer.” When I asked him if neo-geographer is how he identified, Will said, “I guess I wouldn't outright say I am, but I wouldn't be opposed to the label at all.”

Will makes digitally-based maps both as a hobby and professionally. As a hobby, Will has made maps that speak to personal interests, including a map representative of his 10 year old self. In our interview Will said, “I had the idea of what would my 10 year old self make a map of if he wanted to make a map. He would probably highlight where schools are, what's important to him, schools, basketball and tennis courts, and areas where he spent a lot of time at.” Will also made a map representative of the ubiquitous parking in downtown Cleveland as a response to municipal officials’ claims that more parking was needed downtown (see figure 6). Even in the maps he makes for personal reasons—whether these maps become public or not—there is a strong sense of civic interest, investment, and response, as well as a strong sense of imagination, technical prowess, curiosity, and community engagement.

![Figure 6](image_url)

Fig. 6 “Downtown Cleveland Parking” by Will Skora, 2014.

Part of Will’s grassroots cartographic ethos, and where his personal and professional interests in cartography meet, is on Twitter. On Twitter, Will poses questions to fellow neo-
cartographers (to use his term), advocates for open data, re-tweets cartographic and open data statements, and generally posts civic and social justice missives. For example, Will re-tweeted from @swiss_geoportal: “I wouldn’t have been able to learn GIS without open source software and tutorials.” This statement from another Twitter user reflects Will’s ethos as a grassroots cartographer because it echoes Will’s self-taught cartographic knowledge and an implicit manifesto for open source technologies and communication. Because of Will’s commitment to making information public, especially information regarding open access to data visualization and software, I consider his work on social media the work of someone doing civic rhetorical work. Furthermore, because Will circulates information about open source technology and data, to everyone who has access to Twitter, I consider Will as operating at a grassroots level.

Professionally, Will has made maps for his job by creating a map of where food pantries are located in Cleveland. He is also a contributor to OpenStreetMap (OSM), a non-profit organization based in Britain that runs an open source, online mapping platform and that collects geospatial data from OSM contributors to be edited and circulated for individual, public, and commercial use (“OpenStreetMap,” OpenStreetMap.org). OpenStreetMap also operates Humanitarian OpenStreetMap Team (HOT) which “…applies the principles of open source and open data sharing to humanitarian response and economic development” by being “the connecting point between humanitarian actors and open mapping communities” (“Humanitarian OSM Team”). This work is done remotely with international OSM/HOT contributors using satellite imagery to update maps, and then with the help of “local knowledge” to confirm or edit these updated maps. Humanitarian OSM Team attempts to update maps in disaster-prone areas (their website names Indonesia as one example) before a
natural disaster hits and after disasters strikes. In the latter case, HOT contacts humanitarian organizations on the ground to see what geospatial information they need to do their humanitarian work most efficiently.

The professional work Will has done with HOT is when, as he said in our interview, “I ended up going to Haiti in '13 and when I was there, in addition to teaching people how to make maps, but also to add data to OpenStreetMap.” Though to be discussed to a greater extent later in this chapter, Will used his sophisticated computer and OSM-related software knowledge to work with Haitian university students to update maps of Haiti, thus using local knowledge to update maps that emerged shortly after the 2010 earthquake (see figure 7).

Fig. 7 “Haiti Earthquake Damage Map,” wiki.openstreetmap.org, Jan. 2010.

In describing his work in Haiti, and the evolving knowledge and praxis of OSM/HOT more broadly, Will said:

We're finding out, we being HOT…the really popular map designs that were on the default OpenStreetMap website really didn't apply to lesser developed countries. They had features and highway symbolisms that would assume that every single
road was paved and that even though it's a main road and town, it would be four lanes and really nice. We had to take into different contexts of the surface of the road, societal importance, and also do things like different places of interest that weren't on any of the default OpenStreetMap map styles. Like community centers and things like that…

In this statement, Will speaks to literacy practices in that he and other HOT contributors were learning about local infrastructures and then adapting the OSM mapping codes to reflect such infrastructures. Will also hints at a philosophy of openness and community shared by OSM and himself. This is a philosophy that is reflected in what I have come to identify as a grassroots cartographer ethos, or an ethos that seeks to make knowledge and materials accessible to all people and communities within a critical yet compassionate framework.

2.3 Hassan

Hassan is an interdisciplinary artist who lives in Illinois and who often creates interdisciplinary art projects with his wife Jennida (they form the S/N Coalition); at times he and Jennida create work with other collaborators. When I asked Hassan how he identifies in relation to the mapping projects he’s worked on, Hassan said:

… I don't really identify as like a cartographer, somebody who makes maps. Names are always a little bit slippery…I just have to come back to maybe just interdisciplinary artist, just because I have this background in video and film and photography and sculpture, but in a way, the things that I want to achieve…don't fit very solidly just within the realm of photography or the realm of video. Even if there were some sort of reliable media term for what we're doing, I don't think it still adequately describes what
the agenda is or the methodology… I'm interested in maps and I'm interested in geography and being able to either define or redefine space and social navigation as well as imagination, but I don't have the training to be considered a cartographer.

For Hassan, geographic maps are not the primary text in the projects he creates. So this is where it becomes “slippery,” to use his term, for me to call him a grassroots cartographer. It is difficult to put his video-based projects alongside one of the wall maps Aaron creates, for example, and to see similarities at first glance. However, as Hassan states in the quote above, he is interested in defining and redefining space through art, and, as will be discussed in the section on exigencies, he is interested in site-specific responses, specifically those that demonstrate “resistance” (Pitts, email) by individuals, communities, and histories in his current map-related project. Furthermore, Hassan speaks to an agenda—i.e. rhetorical purpose and Sara Ahmed’s concept of desire—and a methodology also rhetorically motivated and situated in his description of his work. Thus, if a geographic map is a spatial representation of a location, and a grassroots map is made to create alternative narratives for communities, and all are rhetorically situated, then I believe I can include Hassan with the other grassroots cartographers in this project.

In our interview, Hassan discussed the evolution of the space-based projects he and Jennida have worked on, including one project where they pasted QR codes around Berlin for people to access via mobile devices. He also described the “RVA Remix Collection” (see figure 8) which, according to the Vimeo page thatcatalogues the Remix, “… is a mobile-platform based, public intervention highlighting the vibrant street-art murals in Richmond, VA. 10 videos remixing the textures of 10 murals within the city have been created, and a LAYAR augmented reality mobile application was developed. Triggered by GPS
coordinates, participants are able to stand in various part of Richmond and watch the site-responsive videos.” Using video and editing software and hardware, as well as audio production tools and online platforms like LAYAR, along with a clear admiration for particular places, a foundation for Hassan and Jennida’s current project, a work-in-progress, was established.

Fig. 8 “RVA | Remix: 3” by Jennida Chase and Hassan Pitts, 2013.

The current project, the “Richmond Reclamation Project” (see figure 9) stems from a previous project with different collaborators. This current iteration is the project Hassan spoke about at great length during our interview, a project where I find many intersections with the other participants and with the idea of grassroots mapping and civic rhetorics. Some of these intersections include a dedication to localized knowledge, a dependency and expertise of technological literacy practices, and respect for the people with whom Hassan and the other cartographers work. On the project’s website a brief description states: “The “Richmond Reclamation Project” is an interactive oral history highlighting memories of African American residents in Richmond, Virginia, from before the Civil Rights Movement. Video testimonies
will be embedded in the spaces where they took place, accessible by free software on mobile
devices, as well as online interactive maps.” Like “RVA Remix,” the “Richmond
Reclamation Project” will be technologically supported by the augmented reality program
LAYAR and by GPS coordinates (more on these tools later in the chapter). This project is also
contemplated, as was made clear in our interview, as being site-responsive, meaning as
people walk through Richmond using mobile devices with the project pulled up on the
LAYAR application, videos related to different sites will pop up as they are triggered by
previously programmed GPS coordinates. Unlike “RVA Remix,” the site-responsive videos
will be supplemented by more “traditional” Google maps that will lead people to the GPS
pinned locations where the videos will appear on their mobile devices. Furthermore, like
“RVA Remix”—which highlights the work of marginalized street artists— the “Richmond
Reclamation Project” highlights stories from a doubly marginalized population in mainstream
narratives: elderly African Americans whose stories are collected through oral histories.

Fig. 9 “Richmond Reclamation Project” -Example Segment,” by Jennida Chase and Hassan
Pitts, 2014.
As Hassan described the project in our interview, “Basically the idea was to try and release those oral histories, or at least snippets of them, into the landscape based on location. Our aim is to sort of collect someone talking about a specific corner, a specific intersection, a specific building that may or may not be there "today." And have people be able to access those memories upon situating themselves at that location.” Because of the different means of representing space—through both more traditional geographic maps like Google maps and by augmenting embodied spatial experiences with videos, memories, and histories—and because of the desire to bring the oral histories of elderly African Americans to a wider audience, the “Richmond Reclamation Project” offers a unique example of what grassroots cartography and civic rhetorics can be and do.

For example, in “Oakland, the Word, and the Divide: How We All Missed the Moment,” Adam Banks discusses how history has “branded African Americans as utter outsiders” and how “Because of the persistence of these constructions, access to technologies and the discursive practices that determine power relations in our society, the Digital Divide, and the larger history of African Americans is essentially a rhetorical problem” (828). Hassan’s vision for the “Richmond Reclamation Project” is to bridge and disrupt the gaps that Banks names. The project is an attempt to bring African American histories as told by African Americans to a wider audience by using numerous technologies. While assuming that a mainstream audience will have access to the technologies needed to interact with the project, Hassan brings the necessary technologies to his elderly participants as a means to record and distribute their stories to recalibrate “discursive practices that determine power relations in our society.”

To further illustrate how Hassan’s vision is form of civic rhetorical work, I look to
Jacqueline Jones Royster, who writes about when “the subject matter is me and the voice is not mine” and how such “close encounters…are definable through the lens of subjectivity, particularly in terms of the power and authority to speak and to make meaning” (557 “When the First Voice You Hear…”). Though mediated through his interviewing, filming, and editing, Hassan, through the subjective lens as an African American, is in a better position than some other artists and cartographers to bring the “subject matter” and voices of elderly African-Americans to “The Richmond Reclamation Project.” In this project he is troubling the concept of “the subject matter is me and the voice is not mine” that Royster writes about. Because of practices attuned to access and making marginalized voices heard more broadly and marginalized bodies more widely seen through a cartographic-based text, the “Richmond Reclamation Project” Hassan is enacting civic rhetorical and grassroots cartography work.

Furthermore, Hassan wants not only oppressive narratives of elderly African-Americans disrupted, he wants the concept of maps disrupted. In our interview, Hassan said:

But generally the aim is to try and reawaken them (an audience) to some aspect of the location that they either didn't know, didn't stop to think about or maybe had just forgotten. It's really trying to activate the landscape more than to provide a way of navigating to a destination, you know, MacDonald's, the office, home, what have you. That's what I mean by trying to make it more about where they are and what's around them, and make that, change the way they think about the term "map."

This description of the project’s goal is exciting because it suggests a fully embodied interaction with stories, places, and technology as intersecting with a map embedded within a larger artistic project. This description is also exciting because it cognitively challenges what a map can be and do. Because Hassan is interested in disrupting mainstream narratives of
people, places, and even foundational concepts of maps, I consider Hassan a grassroots cartographer for the purposes of this research project. The work Hassan does to make his participants’ stories accessible to a broader audience and to preserve these stories within an infrastructure he, Jennida, and their participants create also makes Hassan’s work a civic rhetorical practice. Finally, Hassan’s insights into and practices of cartography and civic rhetorics enrich the understanding of literacy practices, as will be explored in chapter four.

2.4 Hagit

Hagit is from Jerusalem and is currently a Ph.D. Candidate in the Politics and Government Department at Ben Gurion University in Israel. In our interview I did not ask how Hagit identified in relation to mapping, but she says in an interview article in that "I’m not a cartographer, not an artist and not a geographer. I’m neither a technologist nor an environmentalist and nor am I a scientist. Yet I am interested in all of these areas of expertise and my experience with map-making has made it possible for me to explore them” (“Seeking New Ways of Seeing – Collaborative Mapmaking in Jerusalem”). Based on these intersections of interests and experiences, and based on her ethos of critical compassionate action for the marginalized communities she works with, I feel secure in identifying Hagit as a grassroots cartographer for the sole purpose of this dissertation.

Though explored further in the section on exigencies, part of what eventually led Hagit to mapmaking was exposure to the demolition of Palestinian houses in Jerusalem when she was younger, then involvement in protests against the demolitions, and eventually an “information activism” (“Seeing Jerusalem with New Eyes”) pursued, initially, through higher education. In her own words:

I studied Fine Arts for my first degree and (for my) second degree I did Visual
Anthropology. I was connecting between visual work and research. I was in activism, in political activism in Jerusalem specifically, around Jerusalem issues, around planning issues. My dissertation was on the use of photography in enforcing the planning law in Jerusalem. Like the municipal use of photography in these practices of enforcing the planning law. So I was collecting … Going through their archives and looking at how they worked with photographs to prove criminal activity around illegal planning and illegal building. (Personal interview)

The project she describes above—as well as projects since—is grounded in place, specifically place as lived and understood by her. Like Hassan, Hagit’s attention to maps is rooted in an art background, and in an interest in place and space issues, especially those that concern places of personal significance, which too is like Hassan and Will. In an interview with the Tactical Technology Collective, Hagit expands on this trajectory towards making maps by saying, “So I think mapping was a tool that connected art, activism and the particular geography I'm working in, and it allowed me to think about how to connect peoples' stories and places in an interesting way.” Though their maps look markedly different, Hagit and Hassan also share an interest in people’s stories and in making these stories visible. The desire to make everyday people’s stories accessible to a broader public, especially when these stories aim to change communities’ lives for the better, suggests a civic rhetorical sensibility. Additionally, because Hagit operates conscientiously with the knowledge and desires of the communities she works with, a grassroots ethos underscores the maps Hagit makes, as well as the literacy practices she engages with.

Further demonstrative of this ethos and sensibility, Hagit is involved with several community-based organizations. Currently, for example, she is a practitioner and organizer
with the Public Laboratory of Open Technology and Science (Public Lab). As mentioned in chapter one, Public Lab is a community organized online and in different face-to-face chapters and meeting spaces. The goals of Public Lab are to collaboratively create open access Do-It-Yourself technologies for environmental investigative purposes. The mapping that Public Lab members do is guided by these DIY philosophies of open access and global/local knowledge, and by DIY technologies and toolkits. For example, participants attach inexpensive digital cameras to weather balloons or kites, send these pieces of hardware into the sky to take aerial photographs, and then “stitch” the images together using a free and open-access software called MapKnitter, developed by Public Lab, to create aerial maps. There is an archive of the 300+ maps created using Public Lab mapping toolkits, found on the organization’s website, and there are wiki pages dedicated to research notes, including notes about mapping projects. Hagit is an ongoing contributor to the research notes, a wiki editor, and she has been involved with and led numerous projects with Public Lab members, or inspired by Public Lab principles, in the United States, Israel, and Europe. She also credits Public Lab with continued support of not only feedback on technological practices, but also in developing Public Lab-like infrastructures in Jerusalem, and in continuing her understanding and practice of political and relationship-based change (Personal interview, Tactical Technology Collective).

Before her introduction to Public Lab, Hagit began working with the Israeli organization Mamuta and there led workshops for youth on mapping as an experiential and play-based activity. These workshops and maps were also informed by ideas of building virtual relationships between Israeli and Palestinian youth. In our interview, Hagit described this project further, “Then I realized that it would be really interesting to bypass this myth to meet each other, I mean I wanted to look for a way not to create dialogue, it’s a very worn-out
practice here, dialogue. I thought mapping would be a great tool to put everything together on a geographic plane and make people see … stories through the map.” The knowledge gained from Public Lab interactions increasingly informed the Mamuta work, and Jeffrey Warren, a co-founder of Public Lab, was invited to help lead the workshops.

Since then, Hagit’s projects and foci have evolved. Her work still focuses on community change, representation, and preservation of both the natural and social world. However, in our interview Hagit articulated how the infrastructure of Public Lab can only take her so far. She discussed how Public Lab can serve, to an extent, as a global model for the community work she and her various community partners enact, yet she recognizes that a local context of the cultural and material realities of Jerusalem, Israel, and Palestine are the primary lens/standpoint from which she must carry out her work. Her projects now do not, for example, consist of Israeli and Palestinians working together because, she said in our interview, the Palestinians were not comfortable working with the Israelis (our interview occurred six months after the 2014 Israeli-Palestinian conflict). Furthermore, some the maps she helps to facilitate also included supplemental texts such as written annotations and additional photographs taken by community members (see figure 10) as ways to enhance the voices and narratives of the community mapping participants.
Fig. 10 “…Detail of Children's Annotations on the DIY Silwan Aerial Map,” in “Where do the Maps Go?,” by Hagit Keysar, 2013.

Hagit’s work with Public Lab, Mamuta, Silwan (figure 10), and other projects serves as theoretical base and the research material for her dissertation. In our interview, Hagit said:

For my dissertation I have three case studies that are developed around issues that have to do with the urban environment in Jerusalem, issues in specific locations in Jerusalem, different communities. One is a Palestinian community, another is the Jewish community in western Jerusalem, and another one is completely different. It has to do with the past, the pre-’48 history, the Palestinian history; one is in the neighborhoods in Jerusalem, before 1948, before the establishing the state of Israel and the expulsion of the population from the city and other places but also from parts of the city.

The way in which Hagit speaks of her dissertation again demonstrates Hagit’s commitment to local communities, including a community that is strongly situated and explored within its historical context. The ways in which Hagit thinks about issues related to civic change and how she puts civically motivated literacies into practice is illustrative of a grassroots ethos...
that enriches the data and findings of the dissertation.

3. Exigencies and Purposes of Participants’ Map-Making

“I want to write about the political potential of these kinds of practices in contested urban environment(s).”-Hagit Keysar (Personal interview)

As a feminist scholar, I often return to the feminist maxim “the personal is political.” This maxim implies that the political tentacles of global power structures and institutions intimately affect all aspects of our lives, including the everyday spaces, labor efforts, and embodied experiences of marginalized populations critical to my feminist standpoint theory. Therefore, while I developed multiple categories to discuss the personal reasons why the cartographers I interviewed make maps, all of these categories fall under a broad Political category. This broad political category speaks to global exigencies in an expansive rhetorical context while the participants’ personal purposes for map making fall under and are intricately tied to the larger exigencies. The subsequent categories that merge exigencies and purposes are: 1. Making What I Want to See/ What Is Missing, 2. Mapping as a Form of Expression with Artistic Expression as a subsection, 3. Identity, and the inclusive and deeply interrelated category 4. History/Stories/Preservation/ Recovery/Visibility. In the following sections, I describe the reasons why these map-makers began and continue to map by using their words, my analysis, and the support of scholarly literature. And though each category is initially explored separately, because of the intersectional nature of the exigencies and purposes, there is cross-over of analysis as I draw connections between sections.

3.1 Making What I Want to See/What Is Missing

My participants spoke to what seems like personal, sometimes even private, reasons for
what led them to map making. These personal exigencies, though, are also political, and all the exigencies led to public map-making practices. I attempt to address this personal/political/private/public paradigm in the section title of *Making What I Want to See/ What Is Missing* as the second part of this title suggests a public and political cause (what is missing from our collective lives and landscape), and the first part suggests a more intimate desire. As for my participants, both Aaron and Will mentioned times when they were younger and they were looking for maps of specific ideas and places. Hassan is also inspired by a specific place, Richmond, and he remains interested in how a map of a place can look different depending on the individual who makes it. Hagit’s personal interest in photography and urban planning led to mapping projects with other citizens. Therefore, the reasons for these participants to make maps came from desires to see a personal vision of a place visually and spatially realized, though this personal vision is couched in broader political and rhetorical contexts.

For Aaron, the initial impulse to make maps was tied to a longstanding absence he noticed in the maps he was seeing. In our interview he said,

You know how a lot of teenagers and younger kids like to hang things on their walls? I was looking for a map to hang on my wall and it kept coming across, the few that I found, seemed extremely incomplete. I felt like there was a void and for a couple years just thought about it. If there’s no maps someone needs to make one and then when I was about 19, I had been in college for about a year, I just decided to literally create one myself. Not really with the intention of eventually copyrighting it...Just more for my own knowledge.

Aaron had a particular vision of the information he wanted to see and how he wanted to see it. For him, pre-colonial American Indian linguistic and geographic history was missing in a
centralized way in a format that was commonplace and effective: a map. Once he realized he couldn’t find what he wanted, he made his own map. This is a good example of a grassroots action: Because corporate cartography and textbook companies weren’t producing a product an everyday citizen wanted to see, the citizen made his own product. This grassroots action, at first for individual purposes, eventually became a communal enterprise, with both audience and participants becoming part of the Tribal Nations maps Aaron now creates.

Like Aaron, Will had a vision of information he wanted to see visualized about a place that is personally important to him, his hometown of Cleveland. In our interview, Will discussed the initial impetus for map making: “Back in late 2010 or so, I moved back to Cleveland after being away for a few years for undergrad, and my mom asked me what do I want for Christmas and I was like, I want a map of Cleveland's neighborhoods, and I couldn't really find one that I honestly liked.” This impetus is important to note because it demonstrates a personal relationship to a place, an invested interest in certain information of that place, and a desire to have a spatio-visual artifact of this location-based information. Like Aaron, Will’s personal desire to have a map was a private enterprise, though it eventually became a communal venture as Will has made maps for his job at a food bank and for other civic purposes. For Aaron and Will, the private and the personal reasons for making maps eventually became a public, civically rhetorical endeavor.

In our interview, Hassan often spoke about Richmond. Richmond is a city in which he lived and created the “RVA Remix” project, and it is a city that informs the current “Richmond Reclamation Project.” Like Will, Hassan has a strong relationship to a city, even though he no longer lives in this city. Hassan thinks about the distinctive nature of a city that is lived by many people (the idea that a city is multiple cities) and thinks about how cities like
Richmond are constantly changing. These considerations inform Hassan’s view of maps. In our interview, Hassan said, “Within Richmond, it could be like you have map A is a version of this person whose orientation is on a bike. This person, person B has a map that is all about hiking. So it changes the way that people can actually relate to a city…And the city itself changes so fast in these really ad hoc attempts at gentrification that the terrain changes radically…I think that just having a basic desire to transplant your own interests and desires…is redefining already conquered territory.” Hassan is interested in maps that are themed by an individual’s desires or interests. As interdisciplinary artists, he and Jennida have already made such a map/art project with “RVA Remix” by documenting location-based art in Richmond by Richmond artists. Their interest in art led them to mapping other people’s artwork.

Furthermore, what is especially interesting is how Hassan connects the personal to the political, the grassroots, in very clear terms. Throughout the interview, and alluded to in the quote above, Hassan discusses how a city is “conquered territory” because of capitalistic, historically “white-washed,” and other hegemonic forces. However, for Hassan, for people to transpose their personal “desires and interests” onto a place is to work against those forces. With everyday citizens projecting their desires onto a landscape, they are redefining what powerful city planners, urban developers, and municipal council representatives attempt to do a city and to the people who live there. Mapping the personal interests of everyday citizens is a grassroots action because it makes what is often missing: the very public and visual “voices” of ordinary citizens to reshape a more monolithic vision of a place. The way Hassan describes “redefining conquered territory” is thus a clear example of the feminist “the personal is the political” and of civic rhetorical work.
Hagit’s exigency for map making bridges her photography background to her activism around urban development issues. In an article she wrote for the Public Lab website, Hagit discusses her initial impulse for making maps this way: “The possibility to create beautiful and engaging photographic maps with residents and around issues and matters of concern in the city spurred my imagination, I saw it as an exciting technological and political tool for creating new ways of seeing, bypassing the governmental and corporate control over geo-spatial information that is shaping the ways we imagine the urban space and geography” (“A Matter of Scale…”). Like Hassan’s term “redefining,” Hagit is interested in “creating new ways of seeing” places and spaces that are controlled by oppressive government and corporate forces. Furthermore, Hagit wishes to create visual things about “matters of concern,” a concept Laurie E. Gries develops in her book *Still Life with Rhetoric*. Building off the work of Bruno Latour, Gries argues that (visual) things that are matters of concern “acquire meditational potential to shape all kinds of matters—political, emotional, psychological, relational, familial, and so forth—via their dynamic relations with human and non-human entities” (13). Hagit seems to understand the “meditational potential” of maps as visual things able to impact the political, emotional, relational, and otherwise important aspects of peoples’ daily lives. Because of this understanding of maps and her background, interests, and imagination Hagit developed new activist methods for approaching grassroots civic projects and one of these methods is mapping. The personal interests of art and activism created a public and political means in which Hagit and community members in Israel can address personal yet civic concerns. Like Aaron, Will, and Hassan, mapping became a way for Hagit to tie her personal interests to those of other everyday citizens in order to accomplish civic rhetorical work.
3.2 Mapping as a Form of Expression

“With a map I can express my thoughts…” - Will Skora (Personal interview)

My participants are drawn to geographical maps as rhetorical texts in part because of maps’ spatial formats, which afford varied opportunities for expression. For my participants, the map is a medium in which to express data, ideas, identities, stories, and feelings. For example, in our interview Hassan spoke about alternative, or alt maps, this way, “That's another example of an alt map, where it's not about the destination, it's about displaying content about what people are doing, thinking, feeling. In my mind, that's about trying to help people re-imagine this world that we think of as having these distinct borders.” These concepts of “displaying content about what people are doing, thinking, feeling” and “re-imagin(ing) this world” (see Cosgrove in Propen 14) runs through the cartographic work of all of my participants in one form or another. My participants wish to work with marginalized communities so that their everyday lives are represented and so select locations of the world can be re-conceptualized. The possibilities for civic change through this type of geographic, visual, and spatial expression are part of what motivates the grassroots cartographers I interviewed, to do the cartographic work that they do.

Because each participant operates with his or her terministic screens when making maps, even when working communally, there is an inherent subjectivity built into the data, ideas, and stories represented in the maps. As such, map-making can be viewed as a form of expression where the map-maker is sharing his or her vision of how he or she sees the world by choosing and displaying particular types of information in particular ways. This understanding of an individual’s expression communicated through cartographic practices can be contextualized within rhetoric and composition by a framework of expressivism. From its
roots in Romanticism to its pedagogical “heyday” in the 1960s and ’70s, expressivism forefronts the lived experience of individuals through creative and imaginative processes. This focus of representing individual’s everyday lives is privileged by feminist cultural geographers (see Kwan, Rose), is present in my feminist standpoint theory, and is accomplished by grassroots map-makers as their maps come from deeply realized personal purposes tied to global exigencies. Furthermore, like proponents of critical expressivism, this idea of the individual is informed by and informs the socio-cultural context from which the individual resides (Boyd 8). When considering the participants’ cartographic purposes and practices within a expressivist framework, it is also productive to understand that “… the best expressivist practices have always been about complex negotiations between self and other, and the dismantling of the “public”/”private” binary…” (Rhoeder and Gatto 8). In other words, the grassroots cartographers I interviewed do creative and critical cartographic work with a clear recognition of both their socio-cultural subject positions and the idea of community firmly in mind. Their work also blurs what is private and what is public given that the impetuses for these mapping projects come from overlapping personal and communal ideas to make social change.

As previously mentioned, the terministic screens of my participants act as filters during the map-making process. Even though my participants work with communities to make grassroots maps, the participants are ultimately the experts who finalize the maps’ creation. Aaron and the graphic designer he works with formalize the research Aaron collects into a map that can be printed and hung on a wall. Will takes digital information contributed by various community members—municipal workers from Cleveland, Haitians working on the ground in Port-au-Prince, other OpenStreetMap contributors—and generates
born-digital maps. Hassan incorporates oral histories from participants he has interviewed into a complex participatory digital project where place, sound, and imagery are evoked. And Hagit utilizes the aerial photographs her participants take with DIY tools to create a map using open access software. Therefore, despite a common desire to express views of the community members they work with, my participants are making final visual and spatial decisions.

My participants are keenly aware that the representations they create via maps are “manipulated,” in the words of Hagit; partial and forever incomplete, as Aaron suggests; or a reimagining of the world, as Hassan notes. Historically, the biased information and beliefs expressed in maps are as covert as spatial representations of geography appear to be obvert, such as with *Theatrum Orbis Terrarum* where the cartographer Ortelius imbued his map with a sense of hierarchy, discussed at greater length in chapter one. In my participants’ maps, the information expressed is also biased. Furthermore, participants like Hagit recognize limitations in the goal of equitable mapping work with community members. As Hagit writes, “…community engagement ends right where the need for design begins” (Keysar “Where Do the Maps Go?”). In other words, the final spatial and geographic “product” requires the cartographer’s knowledge to pull together the images to create the maps. It is the grassroots cartographer’s vision and literacy skills that finalize the creation of the maps, even if the cartographers find ways to sometimes mitigate this, such as when Hagit has her participants annotate the maps with their own words and photographs. Ultimately, the point of departure from the cultural hegemonic practices expressed through many mainstream maps is that my participants’ maps are expressions of alternative stories. These are stories my participants would like to see circulated in public discourses in a manner where non-corporate rhetors “play
a role in the production of culture through imaginative and ethical use of words, images, and sounds” (Sheridan, Ridolfo, Michel xvii). Thus, the expressive nature of the grassroots cartographers’ maps helps shape the culture in which the cartographers and their communities want to live.

3.2.1 Artistic Expression

For some of my participants, the maps they create are artistic forms of expression. The maps are creative and imaginative mediums to communicate data, stories, ideas, and feelings through visual, audio, and performative means. For Hassan, mapping is a supplemental part to a larger interdisciplinary digital art project. For Hagit, her artistic background informs the activism she enacts with her mapping projects. Will said some of his maps have an artistic impulse behind their expression. Though Aaron did not discuss art as an exigency for making maps, he did engage with artistic practices when he drew the first iteration of his map and he continues to engage with artistic practices as he negotiates the execution of his map with a graphic designer. (These examples for Aaron, however, are representative of literacy practices, not exigencies, and will be addressed later in the chapter).

In our interview, Will did not discuss a background in art. However, artistic expression informed part of the exigency for why (and how) Will makes some of his maps. In our interview, Will said:

…some of them (his maps) also can have an artistic bent to them as well as like simply trying to use new techniques and new technologies…I won't say this is all my maps, but one of them that I've recently ... It's completely undone, it's more just like a rough sketch, was really supposed to be a representation, actually, of important places that were a part of my childhood. I had the idea of what would my 10 year old self make a
map of if he wanted to make a map. He would probably highlight where schools are, what's important to him, schools, basketball and tennis courts, and areas where he spent a lot of time at.

Creative elements of art inform Will’s approach to some of his maps, especially the childhood map mentioned above (see figure 11). Already an imaginative idea, this childhood map is complemented by both Will’s technological literacy and by the “artistic bent” he speaks of. This artistic bent suggests a desire to make maps because of their artistic potential and their inherent artistic elements. Though all geographic maps can be considered artistic because of their spatial, visual, and graphical design, art as an exigency for making maps suggests that the map maker recognizes artistic expression can push at what is expected from mainstream geographic maps. Though Will’s childhood map is not a grassroots map in the sense that it is not (necessarily) creating community change, the artistic execution and exigency for creating this map has the potential to inform other maps Will makes, thus possibly enriching their design and impact.

Fig. 11 “Memphis,” by Will Skora, 2013.

When I was speaking with Hassan, who identified as an interdisciplinary artist in our
interview, it was clear that art is a driving force behind the maps he is creating. This is apparent in the way Hassan speaks about alternative or alt maps that influence how he conceptualizes the “Richmond Reclamation Project.” In our interview Hassan said:

I've seen people who will, they'll map their daily routines, and then they'll remove the typical graphical appearance of that map. Just pretend like they're using a street map, and they take little stick pins and place where they go. Then they'll tie little bits of string and they'll connect with pins by how they get there. Then at the end of the process, whether it's like a month long or two months or however long they may choose to do it, if you remove the underpinning of the original street map, then you've got this weird fabric string map, that it doesn't, when you look at, it doesn't adhere to standard logic of, well, this is Elmwood Street, this is where High Street is, that's where the bakery is. It becomes about the performance of movement.

This idea of performance of movement informs the “Richmond Reclamation Project.” Hassan and Jennida want people interacting with space as they experience the place-based stories from local, elderly African Americans. People who participate as audience are part of the performance of movement as they make decisions of how, where, and when to look at the mapped locations programmed into the LAYAR application. This elaborate performance element is intricately tied to the audio and visual components of the larger digital and interdisciplinary art project Hassan is working on. Within an artistic context, the “Richmond Reclamation Project” suggests performance art or dance where the rhetor attempts to make meaning though interactions of seeing and/or feeling bodies move through space.

This project is also reminiscent of Amy Propen’s scholarship. In *Locating Visual-Material Rhetorics*, Propen writes about how the visual, spatial, and material rhetorics of
geographic impact bodies (3). More specifically, Propen writes “These cartographic
texts…have both an immediate impact on contextualized, bodily experience as well as
broader consequences within and beyond the rhetorical situation” (Propen 7). The “Richmond
Reclamation Project” evokes spatial, visual, and material rhetorics and is thus an embodied
experience. The interactions between the Google maps, the videos of African American elders
called up on the LAYAR app, and the corresponding locations in Richmond can have
numerous affects on the bodies experiencing the project. Not only would an audience feel,
hear, and see the project’s content, but memory, learning, and emotions will be tapped
through this embodied experience. Those who are from Richmond or who have lived
experiences connected to Virginia’s capital will be reminded of memories tied to the locations
they access through the project. People who are and who are not from Richmond will learn
from the oral histories they hear. Finally, both memory and new knowledge can stir emotions.
This is what powerful art does: the vision of the artist is recognized by the audience but is
expanded as each audience member brings to the art his or her terministic screens. Thus, the
immediate impact of the performance as an audience works through “Richmond Reclamation
Project” will stretch beyond the rhetorical situation of the project. The spatial, visual, and
material rhetorics of the “Richmond Reclamation Project” emerge from Hassan’s desire to
explore place, history, and memories through embodied performance. Because Hassan
identifies as an interdisciplinary artist, art as expression is a primary exigency for him when
wanting to present ideas that can effect individual and community change.

With Hagit’s background in fine art, photography, and an interest in the interplay of art
and activism, art is one reason why she makes maps. When discussing what lead her to current
community mapping work, Hagit said, “I was working in the scene between art, photography,
and research all through this time and with my commitment to political activism I started this media project in an education lab in an art center called Mamuta. I started to plan this program of Palestinians and Jewish youth telling about their experiences through the use of media, video, photography…” (Personal interview). For Hagit, as with Hassan, an artistic background is part of her terministic screen: it informs how she views and interacts with the world, and how she works for civic change. Art is the foundation for the intersection of art, activism, and research that underpins Hagit’s community mapping actions. Without the artistic background, Hagit’s community work that involves maps may look different, or may not exist at all.

Furthermore, Hagit, like Hassan, is part of a rich history of art and activism where art is used a means to enact civic change (Thompson). As an “expert,” or at least an experienced leader, in art and mapping, Hagit guides community members in making art for change they want to see. Because there are different communities that she works with, there are different configurations of this community work, such as when Hagit has involved other artists:

… I did a workshop for a group of students in the arts school that had one of these courses that you do fieldwork. Its art students but they did art and activism course. They chose to work in this neighborhood in Beit Safafa, the Palestinian neighborhood, and to work with the people who struggled against the construction of the highway that crosses through their neighborhood and really devastates like creates severe damages to the environment there. I mean to the social environment and also obviously the physical environment. (Personal interview)

To introduce other artists to the mapping work she does allows the network of activism to grow. Different community members, such as those in Beit Safafa and the art students, are able to meet and build off each other’s resources and ideas to potentially develop new
projects. These new networks also allow the possibilities of the maps to evolve in ideally productive ways where different artists can bring their design visions to complement the civic purposes the community members have in mind for the maps. The communities’ civic exigencies can also be pushed further as their ideas are realized in diverse ways and carried forward by the new and adjacent community members joining their project. Art thus serves as an exigency for Hagit because she knows art can operate as a springboard to get community work done. This work is accomplished by enriching community networks, enhancing design potential, and increasing progress with the community’s mapping goals.

Art is a medium that can invite people to engage with political issues that otherwise would remain too contentious in which to engage. Art often allows for expression in more emotionally and politically accessible ways. Or at least in different ways that may allow community members to engage with issues more productively. Artistic expression is an exigency for some of my participants because art is a major part of who they are. For Hassan and Hagit, art greatly informs their terministic screens. These terminisitic screens guide how they approach community work, work that includes grassroots mapping. Furthermore, the visual, spatial, and material rhetorics of maps are present in artistic expression and geographic maps and thus nicely complement each other. The embodied nature of art is also present in mapping as cartographers do fieldwork to gather data for a map and as cartographers use the data for editing and design processes. Furthermore, art and maps allow people to re-imagine the world, as Hassan stated. The creative elements of artistic expression open up how both artist and audience perceive data, stories, ideas, and feelings. Similar principles apply to maps, where the data, stories, ideas, and feelings in a map can change how a map maker and a map reader understand geographic, cultural, and political relationships depending on how these
data, stories, ideas, and feelings are presented. Finally, artistic expression is an exigency for some of my participants because art is both who they are and how they see a way forward with their civic and cartographic work.

3.3 Identity

Identity is another reason why some of my participants make maps. Preserving, reinforcing, or otherwise informing cultural, communal, and individual identities are political acts and therefore are the kind of civic rhetorical work my participants are already interested in. Because maps present and emphasize cultural components that help inform identity formation, different identity representations can be circulated, reinforced, and distorted through maps. For example, a map that only partially represents a peoples historical, social, and environmental relationship to a geographical area, such as the map of the Tohono O’odham reservation discussed in Chapter 1, can affect the identity of individuals of a community, or the entire community. Though identity politics are contested in some academic circles, other scholars maintain there are psychological and material consequences when identities are threatened, fraught, or otherwise compromised. Karen Kopelson, for example, accounts for rhetoric and composition scholars in both camps while she advocates for an encompassing approach to consider identity and identity politics. Some of my participants spoke to these consequences as they teased out relationships between cartography, civic rhetorical work, and certain features that inform identity, such as history, cultural factors, and the land where people live or once lived.

Identity is a major reason Aaron makes maps. His work with the American Indian Movement and the relationships he has built with members from different tribes across the Americas informs the value he places in preserving Native American identities. In our
interview Aaron said:

I would say it’s (identity) the very pivotal reason that I’m doing it. We’ve got to take back our history... Identity is crucial because there are tribes now that don’t have any language speakers…They have maybe a reservation or a community area but they don’t have any more elders you can go to and ask them, what do we call ourselves, what are our stories? That information, in some areas, is being lost. In other areas it’s being revitalized so it’s not always a negative thing. I just hope that this (his mapping work) creates, like we said, an awareness and a surging pride.

In this part of our interview, Aaron addresses how it is difficult to maintain cultural identity in a modern society because of external forces that also affect internal factors. The colonial and para-colonial military and settler conflicts that contributed to the genocide and cultural disenfranchisement of American Indians have, according to Aaron, continued as contemporary cultural and psychological battles. As tribal languages and histories are lost along with the people who know them, a tribe’s cultural identity or an individual’s Native identity can become more fraught. As Aaron notes, this loss is not guaranteed as some tribes are able to teach their language and histories to new generations of tribal members. However, there remains a need for different ways to maintain and expand on cultural knowledge and identity. For Aaron, a geographic map that shows tribes’ pre-contact languages and approximate names and locations serves as a cultural marker. His maps are visual and spatial representations of cultural data that can be a touchstone for Natives to reference as part of their personal and tribal identities.

For example, in our interview, Aaron discussed how he wants his maps to be displayed in public schools and tribal community centers so that Native (and non-Native) people can
learn about aspects of their histories that contributes to their current identities. On his website there are photos of Native children looking at his maps. In one photo in particular, four children look at a map and one child is pointing to a particular section, presumably indicating his tribe (see figure 12). This is an example of establishing cultural pride at a young age, an important time to establish a strong foundation for self-esteem and identity. Young students can see part of their histories represented in a text ubiquitous in school materials and in other areas of their lives, thus ideally instilling “an awareness and a surging pride” of who they are within intersecting historical, linguistic, and other cultural contexts for identity formation.

In our interview, Aaron also made a connection between land and identity, thus reinforcing how a geographic map can illustrate relationships between people and places and self understanding. Charles Henry, an Apache historian, said “You see, their names for
themselves are really the names of their places. That is how [Gad 'O'áahn—the Juniper Tree Stands Alone People] were known to others and to themselves. They were known by their places. That is how they are still known” (cited in Clark and Powell). Aaron said, “A lot of times their tribal names mean “the people of the upper river” or something like that. If I actually have the river there it just confirms the identity of them a little bit more.” Though “confirms” is a bit single-minded, I understand the point in this statement. If a name is important in terms of identity (Aoki, Clark and Powell), and if place at times informs a name, such as a tribal name, then it is important to make the connection between place and name. This also becomes important when a tribe was forcibly relocated to a reservation where geographical features of the reservation may not have a connection to a tribe’s name. Thus, Aaron’s map can illustrate these land-name relationships that existed before a tribe was forcibly relocated. Even for a tribe that was migratory right before the pre-contact time Aaron establishes for his maps, there may be a significant geographical feature connected to a tribe’s name that is represented on the map⁹ and which is in an approximate location of where a tribe migrated. Thus the map can still foster pride and awareness through its work of helping to inform a sense of identity through history, geography, and culture.

Like Aaron, Hassan also connects place, history, culture, and identity. For example, in our interview, Hassan discussed Richmond’s role in the Civil War and the U.S.’s system of slavery, the visual artifacts of the former and the absence of artifacts of the latter, and the personal and social implications of these histories rendered visible or invisible. After raising these points, Hassan said, “And when you have a sense of history to a general group of people

⁹ Of course, this becomes complicated if a geographical feature has changed since the range of pre-contact dates established on Aaron’s maps. Rivers are often diverted, for example, and new lakes are created when rivers are dammed.
tends to be a way of informing who they are, where they've come from, and where they might go. It becomes this very interesting question of not only how do you preserve the past but then how do you carry that forward?" (Personal interview, emphasis mine). With this statement, Hassan suggests the importance of relating history to identity when he speaks of how history informs people of “who they are.” Furthermore, he is speaking of a localized history, that of Richmond, Virginia, which implies that localized histories, or histories tied to a specific place, inform individuals’ and communities’ identities, especially for those who are connected to this place. One goal of the “Richmond Reclamation Project” is to elevate the histories of a particular population in a particular place to make Richmond’s identity more complex. In turn, those who are connected to Richmond may also consider their own identities more complex. Thus, the work Hassan does for the “Richmond Reclamation Project” demonstrates as desire to make the culture, histories, and, as corollary, the identities of a place and people more visible and comprehensive.

For two of my participants, identity as an exigency for map making is tied to issues of culture, place, history, community, pride, and awareness. For Aaron, identity greatly affects the Native populations whose histories, or a select portion of histories, he represents in his maps. Aaron believes that because many mainstream maps do not represent accurate information about the geographic and linguistic origins of many American Indian tribes, these maps reinforce the idea that there is missing information about tribes, when really that information is known by tribal elders and members, it is just not always centralized and circulated in mainstream public discourses. By creating his maps and selling them to public schools and cultural centers, Aaron hopes that the knowledge his maps provide help to inform more audiences about linguistic, geographic, and therefore cultural histories affecting
Native identities. Like Aaron, Hassan’s connection of place, history, and identity informs his interdisciplinary art project that incorporates maps. The practice of creating more inclusive and accurate representations of identity is important to Aaron and Hassan for personal and communal reasons. Furthermore, these participants believe such representations can be facilitated through geographic and other space-place based texts like the “Tribal Nations Maps” and the “Richmond Reclamation Project. Therefore, identity becomes an exigency for grassroots cartography and civic rhetorical work.

3.4 History/Stories/Preservation/Recovery/Visibility

“I'm hoping that the people who want to participate in the project have an interest in having their story told and part of that is actually being visible. Not like, simply like, oh, you can see me, but the idea of being visible within the culture, within society, within history.”
-Hassan Pitts (Personal interview)

The title for this section is very inclusive as I find it difficult to separate these concepts from one another. For example, history is composed of stories that are used to preserve what we know. Historical practices are used to recover stories that were once marginalized and which, once brought to a broader audience, make the marginalized stories more visible. My participants also named or implied each of these concepts and because in-vivo coding is part of my grounded theory methodology, it is important for me to include participants’ language to name the exigencies they identify. Finally, these concepts, including the importance of preserving and recovering stories, are feminist practices critical to the field, especially in the history of rhetoric. Joy Ritchie and Kate Ronald, for example, cite Andrea Lunsford when they argue for “interrupting” the rhetorical canon with work by women rhetors (xvi). Cheryl Glenn discusses (fortuitously for this project) “remapping rhetorical territory” (3) and Karlyn Kohrs Campbell writes about “restor(ing)” (1) as means of bringing marginalized voices, particularly women, to a broader audience. I therefore found the exigencies of my participants’ to be a
coincidental but nicely complementary corollary to my own feminist exigencies for this project.

Furthermore, my participants speak to the interrelated nature of these concepts as reasons for why they make maps. Hassan, for example, said, “…some of what I’m doing is largely influenced by some sort of construct or idea or ideal about history” and later in the interview he went on to say, “Again, it becomes this idea of a preservation, and if it's not a preservation, because if it (history) has gotten lost and it's about pulling it back up to the surface so that it can be reconsidered” (Personal interview). These thoughts demonstrate both an interest in and the interconnected nature of history, preservation, recovery, and visibility, what Hassan refers to as “it's about pulling it back up to the surface.” In our interview, Hassan spoke at length about several of Richmond’s histories: the Civil War, segregation, slave burial grounds, and civil resistance. The “Richmond Reclamation Project” testifies to all of these histories, some more directly than others, for the elderly African-Americans that have and will be interviewed for Hassan’s project are affected by and are central characters in these histories. In our interview Hassan also said, “The tradition of oral histories from a collector's standpoint is in part a veneration, the idea that they are, that people are sharing a story with you, and they're sharing it for posterity... You know...there's just this idea, especially within Richmond, and especially with that demographic, often times their stories are not typically shared and not particularly taken.” Exploring and preserving the memories of the elderly participants is a motivation for creating the “Richmond Reclamation Project” and, as Hassan suggests, these memories haven’t always been publically presented so their stories will be “pulled to the surface” with the help of the “Project.” History, stories, preservation, recovery, and visibility are all exigencies for Hassan’s work and the way he speaks about them also
maps out the interrelations of these concepts.

Hagit also came to mapping because of the possibility of preserving stories and histories and making stories visible through maps. For example, when rethinking how to approach interactive work between Israeli and Palestinian youth, Hagit said, “I thought mapping would be a great tool to put everything together on a geographic plane and make people see…stories through the map” (Personal interview). In our interview, Hagit discussed how “dialogue” was a worn-out concept in Israel and so she wanted to do something other than have the youth she worked with “dialogue.” For her, mapping was a way for people from charged, shared, yet also divergent, histories and locations to approach their peers’ experiences. The maps the youths created made their stories literally visible, thus rendering the concept of dialogue differently. Therefore, mapping became a new method for Hagit to do the activist work she wanted to do. The desire to tell, preserve, and make stories and histories visible led Hagit to mapping and her civic rhetorical work thus became more layered and even more effective.

When I was speaking with Aaron, he mentioned two stark examples of visibility, history, and stories as related to American Indian tribes. In our interview, he said:

On a lot of typical maps of Indian tribes of the U.S. you’ll find maybe 50 or 100 most important tribes from the white man’s perspective…In other words, you’ll find tribes like Sioux and Comanche and Apache, Powhatan. These are tribes that have been made famous by Hollywood movies and historians. People that fought the army and were successful at times, at least to a degree until the reservation period started. This is a complex example of how para-colonialism perpetuates continuous marginalization and creates different levels of power between populations that have been clumped together as
a single demographic in the U.S. census. It is interesting to note how predominantly white visual- storytellers in Hollywood contributed to making some tribes more visible than others. The power of popular visual culture has a tremendous effect on mainstream American knowledge as only certain representations of people and events enters the public discourse. Like professional historians, whom Aaron also mentions, Hollywood writers, directors, and film makers develop and then preserve in mainstream consciousness histories that, as bell hooks writes, “reflects the world as they know it, or certainly as it interests them” (Reel to Real 86) thus sideling other histories and making other tribes invisible.

The example of the historians is also interesting, especially is how Aaron specifically notes the dynamic of war as related to history and visibility. He mentions how the Sioux, Comanche, Apache, and Powhatan are more commonly recognized tribes in mainstream discourse in part because of the battles between these tribes and white colonizers. This perception suggests that those tribes that did not fight, that were slaughtered or violently forced onto reservations, are less likely to be part of the mainstream national consciousness because these tribes were not part of a grander narrative of war. This process speaks to the U.S.’s violent history, to how and why we remembers stories and histories, and to how nations are imagined, to paraphrase Benedict Anderson, with the narratives of historians who are “classically” trained and who choose to tell certain stories in certain ways, especially as organized around the climaxes of war. Furthermore, stories of war, or any story, told by historians with greater access to public discourse often do not preserve, recover, or make visible the stories of marginalized populations (Campbell, Glenn, Ritchie and Reynolds).

Aaron also provides another example of story and visibility when he discusses
the relationship between the federal government, tribes, and land. In our interview, Aaron said:

For example, I grew up in Orange County, California and there are two tribes from there that are landless. They have no reservation. They are considered…not federally recognized. They’re considered extinct although they have thousands of descendants. That’s the story of about 200 tribes across the United States that still exist but do not have Federal status. The point being is that there are many tribes that not only are deliberately ignored in our history but are visually ignored too. Such as non-existent on maps like the ones I’ve made. I thought it was an important visual story to centralize all of these tribes into one place. That’s really where it started from.

It is alarming to see the word “extinct” used when talking about people, especially people who are alive, because of racist histories that have equated American Indians with animals, which is how the word “extinct” is usually employed. However, the underlying phenomenon of tribes not being federally recognized because they have no reservation is, as Aaron notes, problematic (Mitchell). There are several tragic ironies to this, one being that systems of colonialism and para-colonialism in the United States created: the language that determines how tribes are recognized, the reservations which honors this recognition, and the conditions for how some tribes came to marry into other tribes. Furthermore, systems of colonialism and para-colonialism in the United States ignores how tribes viewed and view themselves, their relationships to other tribes, and to the land they lived and live on. These para-colonial conditions of denying tribes access to land—especially when land-based definitions were used to identify tribes—killing them off, or forcing them to become “absorbed” into other tribes means some tribes are not recognized by the federal government, thus rendering them
invisible to a broader audience, but more critically makes them unable to receive federally issued resources. In addition to material consequences there are also political consequences to this invisibility as some federally recognized tribes have been able to leverage the sources received by the government so that they have more political power and, as a result, more visibility. These examples of visibility or invisibility—whether thorough Hollywood, historians, or the U.S. government—became a reason for Aaron to make the maps he makes.

An implication of creating a visual and spatial document like a map with numerous tribal representations can make further marginalized tribes more visible. By centralizing the pre-colonial tribal information Aaron includes in his Tribal Nations Maps, the maps also create their own stores, including stories of relationality: relationships to geography, locations of other tribes, distinguishing tribes that, through time, have died, dispersed, or have joined other tribes. These maps are thus doing work to recover and preserve as much as to make visible the stories and histories the map attempts to represent.

The interconnected nature of stories, histories, preservation, recovery, and visibility is a thread that appears in three of my participants’ interviews. Hassan, Hagit, and Aaron speak to the complex relationships between these concepts and indicate that these concepts are reasons for why they make geographic maps for civic purposes. As rhetorical texts, geographic maps are imbued with histories that tell different stories depending on what information is represented. At the same time, paradigms of visibility and recovery or invisibility and marginalization emerge. As meaning makers seeking to represent the civic interests of underrepresented and marginalized groups, the grassroots cartographers I interviewed are driven in part to make maps because of issues of stories, histories, preservation, recovery, and visibility. Thus, there is a clear connection here between personal interests and larger political
exigencies at work to bring more people and stories to larger audiences through geographic maps.

4. Conclusion

The feminist maxim of “the personal is political” reflects a rhetorical context encompassing global exigencies and a rhetor’s purposes for meaning-making. For my participants, the reasons they make geographic maps combine elements of personal desire and broader existential needs. Some of these desires reflect a push/pull of recognizing that something is missing—someone’s story, if even their own—from a public discourse, and then responding by making a map to represent what is missing. This interconnected exigency/purpose is directly connected to another reason the participants made maps which is to express how they see the world through their subject positions, their terministic screens. This motivation of expression, including artistic expression, is recognized in expressivist pedagogies within rhetoric and composition. The embodied nature of expression, specifically expressing one’s vision by mapping, is also recognized by rhetoric scholars like Amy Propen, who connect the spatial, visual, and material rhetorics of maps to embodiment. Identity, especially as informed by land (Clark and Powell) also motivates some of my participants to make maps. Finally, as feminist rhetorical history scholars Karen Campbell, Cheryl Glenn, and Joy Ritchie and Kay Reynolds demonstrate, there is a continued need for rhetors, including cartographers, to recover and preserve stories of marginalized and underrepresented communities, especially in mainstream public discourses.

Furthermore, understanding why a rhetor makes something is important in understanding how that something is made. If we can understand the exigencies and purposes surrounding and motivating a rhetor, we can have a better of understanding of a rhetor’s
terministic screens and the resources she has to do her work. The personal, cultural, and historical contexts that motivate my participants to make maps not only reflect their literacy practices but also cartographic trends throughout history. Thus, my participants are anchored in cartographic tradition as they also reflect contemporary cartographic movements concerned with the grassroots by creating data and images in ways to tell new stories and to disrupt oppressive representations of particular communities.

In the following chapter, I examine my participants’ literacy practices when making geographic maps. These practices are organized into the encompassing categories *Rhetorical, Composing, Technological, and Intercommunal* with a few subcategories for each overarching category. In addition to exploring how my participants make maps, I attempt to connect their literacy practices to the civic rhetorics of the community mapping projects on which they work. In order to make this connection, I also flesh out the meaning of civic rhetorics by examining key points I’ve identified in my research. Finally, throughout chapter four I connect the exigencies and purposes of map making that are highlighted in this chapter to the participants’ literacy practices. This is to see how a rhetor operating within a particular rhetorical context takes action to accomplish a meaning-making goal and text.
1. Introduction

“But generally the aim is to try and reawaken them to some aspect of the location that they either didn’t know, didn’t stop to think about, or maybe had just forgotten. It’s really trying to activate the landscape more than to provide a way of navigating to a destination...” - Hassan Pitts (Personal interview)

If grassroots cartographers want audiences to “reawaken” to places through grassroots maps, how do the cartographers accomplish this reawakening? How do they create maps that will “activate the landscape,” as Hassan said, so that people will reconsider, and ideally take action for, the land and the people the map represents? In this chapter, I explore how grassroots cartographers map and how these practices inform civic rhetorical work. As mentioned in chapter three, I believe my participants’ cartography is uniquely representative of their own mapping practices, larger exigencies, and illustrative of trends and histories of cartographers and cartography. For example, technological literacies and numerous technological tools were discussed by participants, and cartography has always relied on technological practices in order for maps to be created (see Vujakovic). This balance of being attuned to their own skills, global exigencies, and contemporary and historical cartographic practices allows for the grassroots cartographers to possess an ethos of proficiency in cartography even if they are not considered, or do not consider themselves, trained professionals in the field.

To begin the chapter, I discuss the literacy practices of the participants as they create

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10 Hassan Pitts (Personal interview).
maps. There are four encompassing literacy categories, Rhetorical, Composing, Intercommunal, and Technological, each—except for Intercommunal—with subcategories. These sections are rich with details that emerged from the interviews, though the sections are also rounded out with analysis and scholarly support. I then examine the civic rhetorical work of my participants’ cartography praxis and connect this work to the literacies initially explored in the chapter. To conclude, I foreshadow the final chapter where I constellate all of the data to posit heuristics of how writing instructors can learn from the civic rhetorical work and literacy practices of grassroots cartographers.

2. How to “Activate the Landscape”: Grassroots Cartographers’ Literacy Practices

How grassroots cartographers make maps in order to do civic rhetorical work is the crux of this chapter. As I analyzed the data from my participants, I identified numerous literacy practices and categorized the practices that appeared repeatedly into four categories. In their article “Mapping Complex Terrains: Bridging Social Media and Community Literacies,” David Dadurka and Stacey Pigg not only have a complementary metaphor to my research, but they also attest to the interconnected nature of literacy practices, especially community literacy practices, which grassroots cartography arguably falls under. Dadurka and Pigg write “…community literacy studies has often focused on abandoning elemental conceptions of literacy in favor of addressing gaps and intersections across literacy domains, knowledges, locations, and theories often assumed to be separate” (7). Like the intersections Dadurka and Pigg reference, the four literacy categories I identify are interconnected. Furthermore, I found that several of the subsections I developed for each category could be explored under another category or two. For example, the subsection Ethos could fit with the Intercommunal section even though it is categorized under Rhetorical. The data from my
participants could also fit under various sections as these literacy practices are often related to one another and the examples my participants discussed were rich with interrelated practices. Despite moments where I reference another category, overall these categories are as streamlined as possible for the sake of readability.

2.1 Rhetorical Practices

Though I identify meaning-making practices like “literacy” as broadly rhetorical, there are two rhetorical components that I want to explore specifically as literacy practices. One is the rhetorical term audience, a term the Silva Rhetoricae deems an “encompassing” rhetorical term, and the second is the persuasive appeal ethos. Though other encompassing rhetorical terms, persuasive appeals, and rhetorical canons (such as invention and arrangement) inform the literacies my participants engage with to make maps, an awareness of and an active engagement with audience and ethos consistently emerged from the data. How my participants worked to appeal to divergent audiences and how they constructed a grassroots cartographer ethos seem especially important to the civic rhetorical work they conduct with geographic maps and communities. Furthermore, Bruce Horner and Min-Zhan Lu write about the productive possibilities of linking the terms rhetoric, composition, and rhetoric and composition “with a rich and changing array of practices, bodies of knowledge, and institutional sites” (473). Horner and Lu go on to write that scholars should resist “the meaning of each of the terms as stable and self-evident; to use them interchangeably and uncritically with "writing," "English," and "literacy" (473).” In this chapter, and this section specifically, I attempt to critically address the relationship of rhetoric and literacy within a “rich and changing array of practices” and “bodies of knowledge.” That is, I attempt to argue that a person can be literate in addressing and invoking audiences and developing a
grassroots ethos. Knowing how to produce and access knowledge with this specific rhetorical term and specific appeal means these are literacy practices.

2.1.1 Audience

As I explore how literacy practices inform civic rhetorical work, audience becomes especially critical to investigate. This is because not only is rhetoric “preoccupied” (Silave Rhetoricae) with how audience shapes rhetorical practices, but civic rhetoric is specifically concerned with how communities, or different audiences, are affected by and affect civic rhetorical work. Each of my participants spoke to how audience was a factor in the mapping work they did.

2.1.1.1 Hassan

Hassan spoke to the idea of audience multiple times in our interview. For example, he said:

I think that one of the things is just in terms of learning as we go along, is trying to negotiate what's important and what's wishful, like in our head, and sort of matching that up with the reality of maybe what other people expect, not only of those people who are granting us the interviews but also when we would describe the project, like, what, how that strikes other people, whether that becomes also interesting, equally as interesting, or differently interesting. (Personal interview)

In this statement, Hassan suggests multiple audiences: the interview participants, potential funders, and general viewers of the “Richmond Reclamation Project” (hereafter sometimes referred to as the “Project”). Due to previous experiences working with the same participants, applying for grants, and having other projects viewed by various people, Hassan can rely on past experience to guide how different elements of the “Richmond
Reclamation Project” will be developed for different audiences. Hassan recognizes that the project will be developed, in part, by interventions from these audiences (Ede and Lunsford). As Hassan and Jennida move forward with the “Project,” they must make decisions in response to what feedback they receive from these audiences during production and what they anticipate from these audiences before, during, and after production (Ede and Lunsford). These responses to addressed audiences are complex negotiations instrumental to the “Project’s” creation, and thus audience awareness is a rhetorical literacy practice necessary for this kind of civic rhetorical work.

Considering the expectations of different audiences is also complicated by expectations Hassan and Jennida, as the rhetors of the project, have, the “what’s wishful” sentiment Hassan expresses. As Lisa Ede and Andrea Lunsford write,

But it is only through the text, through language, that writers embody or give life to their conception of the reader. In so doing, they do not so much create a role for the reader…as invoke it. Rather than relying on incantations, however, writers conjure their vision…by using all the resources of language available to them to establish a broad, and ideally coherent, range of cues for the reader. (167)

Though the text Hassan and Jennida aim to create is multimodal, not only language-based, the idea that their vision will be communicated via a “range of cues” for their audience remains. The range of cues includes site-responsive audio and video material, embodied experience in a place, select interview participants sharing location-based stories, and interaction with different technologies. Part of Hassan’s vision of the project is as follows:

… the general idea just sort of developed out of just this basic idea of sharing, but sharing across like time and sharing across a perceived intimacy. The idea of being
able to hear a message that was left for you, but not you, somebody, anyone who would listen. The idea that the voice, the story, doesn't fade away, which is a sort of a preservation, even though initially, that's not how I was thinking about it. I was just sort of thinking about, you know, you leave kind of an audio-time capsule of sorts, where all of a sudden, at some point in time, someone stumbles upon this spot, and they hear something, and they hear a story about what happened on this spot. (Personal interview)

This is a vision of “intimacy” and history communicated through time and space. This vision is also very much centered on an audience’s experience. Thus, through various cues, Hassan is invoking an audience that, though perhaps happenstance (“stumbles upon this spot”), will be receptive to the information and sensory experience gained from the “Richmond Reclamation Project.” The project is therefore created through both audiences addressed and invoked.

2.1.1.2 Aaron

Aaron, too, is very aware and responsive to audience. He also has a varied, international audience. In our interview, he listed people who expressed an interest in or who have purchased his maps, including Southwestern art collectors, “…teachers of Indian studies…School principals, tribal colleges, tribal administration offices, tribal governments, regular everyday libraries in random counties across the country…A lot of people that are Native from certain tribes, especially ones that have not ever been represented before well on a map, buy these because they’re like, This is the first time I’ve seen my tribe on a map.” This is a diverse audience with distinct reasons for wanting the Tribal Nations maps, though there is an underlying interest in history and tribal representation as part of these reasons. This
where Aaron’s vision for the map meets his audience’s expectations of the map: Like his audience, he is interested in having his maps cover history and identity representation in a centralized format. Therefore, with different cues included on the map, such as images and particular geographic features, Aaron can attempt to meet audience expectations and shape how audiences understand his vision.

People who are interested in Aaron’s maps also provide feedback about the maps. These audiences may point out a slight alteration to the spelling of their tribe’s name, for example. There are also those who have seen the map and who are critical of the maps. Aaron is responsive to feedback from both the receptive and the critical audiences. If he can establish at least three sources—his criteria for credibility—qualify a claim, he makes updates to his maps on a semi-regular basis. Therefore, there is an intervention on part of the audience in the recreation of the Tribal Nations Maps. Like Hassan, Aaron has prior experience with different audiences so he can anticipate audience expectations, and he responds over time to expectations as they emerge. These different types of interventions affect how Aaron’s maps are made and how they appear when they are printed. Therefore, like Hassan, Aaron demonstrates an ability to work with audience expectations, a rhetorical literacy practice that affects his map making and the appearance of the maps.

2.1.1.3 Hagit

Like Aaron, Hagit has an international audience when she writes articles and research notes for Public Lab, or when she presents her research at U.S. and European events and conferences. Additionally, like Hassan, she has very localized, though still diverse, audiences within Israel and Jerusalem specifically. Hagit is keenly aware of the audiences she must address and invoke as she moves between projects. She is also aware of the “particular”
audiences Chaim Perelman and Lucie Olbrechts-Tyteca write about (see Bizzell and Herzberg). For example, Hagit discusses the differences between the local environment she works in and Public Lab, noting that Public Lab strives for “wider audiences” and helps her plug into a global network. The experience with Public Lab leads Hagit to both address and invoke these wider audiences, and to appeal to particular audiences. For example, she knows what is expected of her as a rhetor operating within Public Lab’s broader global context. The texts and projects she creates are influenced by her understanding of Public Lab’s open source and citizen scientist philosophies and the genre conventions that appear across Public Lab’s infrastructures (website and face-to-face events). Her corollary response to these philosophies and expectations demonstrates Hagit’s awareness of and responsiveness to a particular audiences’ shared values and practices.

Furthermore, Hagit is responsive to the audience feedback she receives on her research notes on Public Lab’s website. For example, in a research note Hagit writes, “Can we think of a workflow that would enable local groups to go beyond creating the object itself, the aerial photograph, to a process of re-shaping the aerial image?” (Keysar, “Where Do the Maps Go?”). Another Public Lab contributor responded in the comment section and an excerpt from the response reads: “From my limited experience the goals and constraints around each project are different enough that people tend to craft a custom work flow using different tools and techniques for a particular project” (Ned Horning qtd. in Keysar, “Where Do the Maps Go?”). The exchange between Ned and Hagit continued with two additional comments. This exchange makes me consider what Hagit, and Ned, took away from the exchange in order to inform current and future mapping projects, and what exchange may have occurred beyond the public comment section of this research note. By responding to the feedback she receives,
including the feedback above, Hagit addresses audiences by implementing and incorporating suggestions into her grassroots mapping practices, and the way she thinks and writes about these practices.

Hagit also invokes audiences, including her attempts to orient an international and largely U.S.-based audience to the local communities and issues she works with and on the Middle East. To be clear, I am sure she is also orienting some local audiences who may not be aware of what is happening in their country, as is often the case in the United States. For example, Hagit incorporates cues into her articles and research notes about the work she does, such as this bit of historical contextualization for a project: “A three days event in the south of Israel, in the unrecognized Bedouin villages, that are frequently demolished by the Israeli authorities. Al Araqib, in which the event took place is a central node of the Bedouin struggle, after 92 demolitions in the past 6 years its residents are staying put” (Keysar, “Ground Truth in the Negev-Naqab Desert, Israel”). By providing this historical background into her research note, Hagit can then go on to describe what is currently happening with the project and can reasonably expect an audience to feel grounded in and understand her motivations and actions in her writing and her mapping projects alike. There is also the assumption that Hagit is writing to a particular audience in this note, an audience that shares Hagit’s values of preserving indigenous lands and homes. Hagit can count on this shared set of values and not have to make arguments to establish such shared values. And though it is unlikely the Bedouins she works with will read this research note, they are a particular and invoked audience with the maps they make with Hagit and her non-Bedouin colleagues. Clearly the Bedouins want to preserve their land, and while they may assist in the map making process, it is Hagit who finalizes the map through the use of the MapKnitter software. Therefore, the
Bedouins are also an invoked audience. Hagit must include cues such as photographs in supplemental materials contextualizing the map and in the map itself so that the Bedouins will identify their civic purposes of the map in these materials. Finally, when working with local communities in her home country, Hagit continuously receives feedback from community members and therefore she can respond in real-time and location with and to the community members’ expectations.

2.1.1.4 Will

Like the other participants, Will has worked with both international and local audiences. OpenStreetMap and Humanitarian OpenStreetMap Teams provide an international platform for different audiences, and Cleveland serves as a base for local audiences for Will with the Open Cleveland and OpenGeoCleveland mapping communities he organizes. What is interesting is that, while it is suggested that audience affects how a text is created through audience expectations and feedback, Will’s OpenStreetMap audience is often also directly creating the text Will is working on. For example, if Will makes changes to an OST map of Port au Prince by adding dirt paths between buildings, another OST contributor, one who is viewing this map, can fine-tune Will’s dirt path additions to the map. The open access, real-time, and flexible nature of these digital OSM maps creates an interesting relationship between rhetors and audience members: sometimes the rhetor is also the audience. This suggests interesting implications for the programmers creating and reading codes to refine the open source OSM maps (Cumming). Already a “particular” audience with shared values of open data and local knowledge, this audience informs each other about coding and geospatial information. The audience members that comprise OSM therefore are an addressed and invoked audience for Will (and each other) in that there are shared expectations and
knowledge, but Will and his fellow OSM members also incorporate cues within their mapping and related mapping forums to affect how OSM mapping is conducted and how OSM maps appear.

The audience/rhetors of OSM are also producing knowledge for audiences that rely on maps for civic purposes, such as disaster relief workers who utilize the HOT maps. Mapmakers like Will embed cues in the maps for disaster relief workers and local map readers to use when accessing the maps. Will and other HOT/OSM contributors are aware of general expectations of these audiences, but they rely on local audiences, such as the Haitian university students Will worked with in Haiti, to provide local information to make the maps more effective. These audiences are therefore invoking the mapmakers as audience by suggesting cues the mapmakers need in order to make the maps more effective. When looking at how OSM/HOT operates with the fluid nature of mapmaker/audience, Will is part of a dynamic relationship of rhetor/audience member in his HOT/OSM work.

Within a local context, Will also has different audiences depending on the map he is working on. For example, for his food bank job in Cleveland the audience includes the people who need information of where to access food banks, but there are also the people who supervise Will’s work at his job, or a “gatekeeper audience” (Deans, *Writing and Community Action* 355). In our interview, we did not discuss if Will received feedback from either of these audiences, so I don’t know whether Will’s hot meal/food pantry map (see figure 13) received direct feedback from the audience that relies on the food bank information to access food. It is more likely Will received direct feedback from a supervisor or co-worker about how the maps looked and as a result the layout of the map was affected. Within this context, Will is addressing audiences who rely on the map for food, as well as a gatekeeper audience that has
expectations of what the map should look like. Will is also embedding cues for both audiences, but perhaps more specifically for those that *need* access to the food bank in order for his map to be utilized.

Fig. 13 “Marillac-Hot Meal/pantry finder,” by Will Skora, 25 Sept. 2014.

My participants address and invoke numerous audiences, often particular audiences with values similar to their own. They work with global and local audiences to create their maps by responding to expectations and direct feedback about the maps’ purposes and designs. Because civic rhetoric is concerned with how communities (audiences) are affected by and affect civic rhetorical work, the idea of audience as a literacy practice is important to making grassroots maps. The grassroots cartographers I interviewed are producing and accessing knowledge in meaningful ways in response to their audiences to make civically useful maps. As a literacy practice, the rhetorical element of audience is a constant for my participants.

2.1.1 Ethos

Ellen Cushman writes, "Audiences do not typically separate a writer's identity from the content of their message; the character of the self and the content of the message have comprised a meaning maker's *ethos* since Aristotle" ("Toward a Rhetoric of Self-
This quote nicely bridges the “audience” and “ethos” subsections of the Rhetorical section. I argue that a grassroots cartographic ethos is one that seeks to change oppressive narratives and material realities of marginalized communities within a critical yet compassionate framework. As people seeking to bring about community change in part through grassroots maps, then both the character of my participants and their message of empowerment together encompass a grassroots ethos. Of course, these goals are not always realized. However, a grassroots ethos takes as its task an attempt to realize this goal of change and empowerment, and at times this goal is achieved.

The concept of ethos is wrestled with by many rhetoric and composition scholars, such as feminist scholar Johanna Schmertz. In her postmodern feminist framing of ethos, Schmertz writes:

We will never know exactly the position from which we speak; in a postmodern rhetoric, we can never permanently situate ourselves as "subject" to the "objects" that form our social environments. Nevertheless, along with many of the feminists I have invoked here, I believe it is important to provisionally name a "politics of location" when we speak, because when we do so, we create an essence—a subject—that demands response from our rhetorical environment. When we attend to our own ethos in a postmodern rhetoric, we are both constructing a subjectivity for ourselves and retroactively reconstructing or recuperating that subjectivity in a process that is never finished because it is always already shaping its own critique, shifting to a new position or location. (89)

Schmertz evokes Adrienne Rich’s “politics of location” for the possibility of fostering agency in an attempt to direct some external forces. This idea of ethos as a fluid and multiple identity
within socio-material contexts is reminiscent of feminist theories that inform my theoretical framework for this project.

When matched with Schmertz and Cushman’s arguments about ethos, Martha S. Cheng’s claim about the appeal makes for a rich understanding of ethos. Cheng writes, “….ethos results from negotiations between the discourse and factors outside the immediate rhetorical situation, such as prior reputation, social roles, and institutional power” (428). This definition of ethos echoes sentiments from Sara Ahmed’s queer phenomenology, where the subject is positioned to power as the body is positioned in space: a person’s ethos is affected by where a person is positioned in society and institutional contexts. From Cushman, Schmertz, and Cheng, ethos can be understood as a person’s identity, an identity “contain(ing) multitudes” (Whitman) and dependent on material and discursive realities. This is also an identity conducting a rhetorical act within a broad rhetorical context of power structures. For my participants, then, it is how their material and cultural realities shape their identities from which a grassroots character emerges to communicate or enact a “message” of community change and empowerment.

2.1.2.1 Hagit

Hagit’s grassroots ethos is shaped in part by her background as an activist, artist, and scholar, as well as her position as an Israeli citizen. Her ethos is shaped by her continuous efforts to improve her work with people, technology, infrastructure, design, and other elements of civic rhetoric. There is clearly much more to Hagit’s ethos than I can point to, but still her ethos is formed within local, national, and global contexts, and it is formed by her reputation and her actions as an activist. Additionally, an important part of Hagit’s grassroots ethos is that she does not approach her community work in an imperialist manner. By this I mean she
develops relationships with communities, including communities that may occupy more marginalized positions than she\textsuperscript{11}, in conscientious ways. For example, Hagit said, “I live in Jerusalem and I know what’s going on in Jerusalem and so sometimes I contact people in a local struggle. I know that they think these practices might be relevant and I tell them what I do and I see if they find any interest with it. If they find it useful or interesting, we start working together” (Personal interview). This quote is an example of Hagit acting upon the importance of how local knowledge affects one’s impact with local people and community projects. It is also an example of how Hagit develops relationships in a vertical fashion: she identifies projects that she thinks she could contribute to in meaningful ways, but asks the people working on the project if her work would in fact be useful to their goals. Her grassroots ethos then does not operate in a top-down fashion when developing community relationships, even if sometimes hierarchal decisions are made.\textsuperscript{12}

\textbf{2.1.2.2 Aaron}

Aaron’s grassroots ethos is a give and take of his prior reputation—one both celebrated and questioned—as a cartographer, his multifaceted identity crossing Native and non-Native (among other) subject-positions and institutional networks, his relationships to the people he represents in his maps, and his rhetorical mapping, one upon which he seeks to continuously improve. Part of this improvement, and a factor of his ethos, is that he seeks to

\textsuperscript{11}“Especially because I am coming from a more privileged part of the area, my civil rights are normally respected, so I take fewer risks. If I collaborate with others who are more vulnerable, there is a good chance that what we do will create hopes of real change. Often it doesn't really happen. So there's also a very difficult balance to keep between raising hopes and creating relationships,” Hagit Keysar in “Hagit: DIY Mapping…”

\textsuperscript{12}In “Where do the Maps Go?” Hagit writes, “To say it more clearly - community engagement ends right where the need for design begins.” Part of her questions in this article is that she takes over the map once the design efforts begin.
establish credibility for the information he presents on the map. This credibility is in response to people who are critical of the Tribal Nations maps, and this could be people who are supportive of the maps but who still believe there should be documentation of where the information comes from. In our interview as we discussed how community influenced his cartography work and how he archived all of the materials he received from community members, Aaron said:

I’ve actually started a bibliography. There is actually free to access on my website. It’s definitely a work in progress because my attempt right now is to have three sources named for every tribal name that I have on my map. In some cases I’m not going to have three sources but that’s my goal to have at least three. That way I’m citing all of my sources and that’s also in a centralized location. I have a link on my website called List of Indigenous Names and Their Meanings/Bibliography…What it is is it’s basically an Excel spreadsheet that anyone can download for free onto their computer or space or whatever they want to do. They can search tribal names… Alongside that it will say where I got that information. That way it’s all linked together… It also, I think, I am legitimizing my project especially since I don’t have a cartography background.

This quote demonstrates different aspects of Aaron’s grassroots ethos. For example, he is attempting to create an infrastructure of credibility with the triangulation of three sources. Another part of Aaron’s ethos is that he makes this triangulated information (when it is triangulated) financially and readily accessible on his website. Furthermore, by including the sources, especially people’s names in addition to textual sources (see figure 14), the community aspect of his grassroots ethos is emphasized.
Finally, Aaron acknowledges that he is not a cartographer, and while not having a professional background in cartography is in fact part of what makes a grassroots cartographer, this acknowledgement seems to spur Aaron to determine his credibility as a rhetorician (i.e. map maker, indigenous knowledge worker). The bibliography, he says, “legitimizes” his mapping project. Aaron’s ethos, then, is tied to ideas and practices of authority of knowledge—he’s authority being tied to the authority of the people and texts where he receives his information—in addition to his identity and rhetorical acts within larger rhetorical contexts.

Fig. 14 “Copy of Tribal Nations List Spreadsheet,” by Aaron Carapella, 2016.

2.1.2.3 Hassan

Hassan’s grassroots ethos, like that of Hagit and Aaron, is tied to identity and rhetorical contexts, and like Hagit specifically, it is tied to a local place. When asked about how culture affects his mapping, Hassan answered that different cultures such as activist, government (where he worked for the U.S. Census), and art movements like Dadaism affect his work; these cultures also inform Hassan’s identity and therefore his grassroots ethos.
Furthermore, with Hassan, a former Richmond resident, his local knowledge and his prior relationships with the participants he interviews helps establish this ethos. In an email exchange prior to our Skype interview, I asked Hassan how community affects his map making. He responded:

For us it is primarily for the community that it affects the most—residents of an area and the community that has generated the original content that we cull. For our latest project I think it would be stellar if the stories we collect could be accessible on a daily basis to the resident of the communities so that much in the same way that oral histories function they can remain as sounding posts for the future. It would be nice to think that as the geography changes that these voices would remain…

Community is thus illustrated as the central component of Hassan and Jennida’s “Richmond Reclamation Project.” The project is orientated towards a people-as-tied-to-place epistemology and ontology. However, the participants are more than just the content they produce; rather, there is an understanding of the affective and relational nature that informs the project. Hassan also mentions accessibility and a goal for the project to have a lasting impact, which alludes to the concept of sustainability. Both accessibility and sustainability are components of a grassroots ethos. Therefore, Hassan is aware of and works to create and maintain an ethos responsive to community, an ethos I identify as grassroots.

2.1.2.4 Will

Like the other participants, Will cultivates a grassroots ethos in different ways. He has a “prior reputation” of self-taught cartographic knowledge and computer programming skills within certain open data and neo-cartographer communities. His identity is comprised of multiple subject positions within rhetorical contexts of power, including institutional contexts
like OpenStreetMap which lends its *ethos* to Will. Furthermore, Will operates with a critical yet compassionate framework when he engages with community mapping projects. This framework can be noted when Will discusses his HOT work. In our interview, Will said:

Meanwhile while we're also there as well there had been this need within the Humanitarian OpenStreetMap community and also amongst a lot of users of the map, so mappers from different lesser developed countries and a lot of NGOs, too, really didn't see that if they wanted to highlight the work that was being done in OpenStreetMap, it wasn't being displayed in … the default layers of OpenStreetMap. Didn't emphasize things like unique places of interest… community centers, blacksmith(s), a lot of local craftsmen, they weren't displayed on the map.

Here Will discusses some problems with the technological and cultural infrastructure of OSM’s maps. These maps privilege certain Western cultural locations and geospatial information and do not include locations and geospatial information privileged in other cultures, the locations of blacksmiths and craftsmen, for example. In the interview Will goes on to discuss how OSM and HOT members attempted to respond to this gap in their maps, how they partnered with locals who wanted and needed these “unique places of interest.” And while these places of interest are not unique to the citizens of underdeveloped countries or NGOs, Will’s response to this gap by applying his technical skills is a part of his grassroots *ethos*. Similar to cultivating a cultural humility (later addressed in the section on intercommunal literacy), Will is compassionate in response to the needs of the communities he works with while he is also critical to what is and is not working in the community-based maps. His grassroots *ethos* encompasses this critical and compassionate framework when engaging with the civic rhetorical mapping work he does.
2.1.3 Section Conclusion

A grassroots *ethos* can be viewed as a literacy practice because it means a person can ascertain what is needed to develop this *ethos* within a particular rhetorical situation, and then actually cultivate this *ethos*. My participants operate from diverse subject-positions within complex rhetorical contexts comprised of discursive, cultural, and material realities. Their characters are built upon their previous work—their prior reputations—and their messages are built upon their rhetorical actions. They are responding to numerous audiences and their responses also develop their grassroots *ethos*. If their response is to bring about community change with and for audiences that primarily include marginalized communities, then the participants are producing a grassroots *ethos*. The attention to audience and *ethos* demonstrates a rhetorical literacy practice that all of my participants are fluent with to varying degrees.

2.2 Composing Practices

Building off the work of Kathleen Blake Yancey, Jody Shipka describes composition as “…at once, a thing with parts—with visual-verbal or multimodal aspects—the expression of relationships and, perhaps most importantly, the result of complex, ongoing processes that are shaped by, and provide shape for, living” (17). Composing practices, then, could be defined as complex processes involving multiple modes (C. Selfe; R. Selfe; Palmeri) of meaning-making. Knowing how to do this meaning-making, or knowing what is needed to create grassroots maps, means my participants engage with different literacy practices while composing. Grassroots cartographers engage in composing practices that involve multiple modes and integrated processes as they work with multiple tools, across different platforms, and with varied outcomes.
Shipka’s definition, as well as my understanding of composing practices, also complements the work of post-process theories developed by such scholars as Thomas Kent, and Jennifer Sinor and Michael Huston. Kent, Sinor, and Huston describe post-process practices as composing according to the social situatedness of communication needs, or according to the rhetorical situation at hand. My definition of composing practices operates within this situated understanding; whether conscious of the rhetorical situation or not, people compose in response to the contexts in which they reside. This is true of grassroots cartographers who compose maps based on civic needs, available resources, and personal literacy practices and abilities.

In this section, like the one on rhetorical literacy practices, I attempt to critically address the closely linked terms of literacy and composing. As Horner and Lu write, I do not want to use one term for another, though I do want to demonstrate their rich and complex relationship. Throughout this section, I explore composing processes and the multimodal nature of composing. Both process and multimodality are extensively explored in rhetoric and composition scholarship. Both process and multimodality are also critical to grassroots cartography and either my participants spoke directly to these elements of composing, or I identified allusions to these types of literacy practices as I worked through my systems of grounded theory and textual analysis. What follows is an exploration of first composing processes and then the multimodality of composing.

2.2.1 Composing Processes

In rhetoric and composition scholarship, process has been critiqued by post-process theorists for being, as Lee-Ann M. Kastman Breuch writes, what centered rather than how centered. Breuch contends, though, that process, especially as contextualized within pedagogy,
is “…a how-centered approach because of its emphasis on the activities involved in process approaches to writing (prewriting, writing, rewriting)” (128). Breuch argues that while post-process theory does important work to reject ideas of mastery and to promote dialogic praxis, the concept and practice of process is dynamic and relevant. For the purposes of this dissertation, I apply the situated nature of post-process theory to the dynamic process activities that can be observed while a rhetor composes.

Pamela Takayoshi implicitly concurs with Breuch, though she focuses specifically on “contemporary composing technologies” when she writes, “Writing studies needs more detailed, systematic understandings of the writing processes of writers as they compose in the technologically mediated, networked, and multimodal landscape of literacy now” (4). Takayoshi’s call makes me consider some of my participants’ composing processes, especially as they primarily compose in a “technologically mediated, networked, and multimodal landscape of literacy.” Takayoshi does note with her nod to literacy broadly that composing is more than writing and my participants compose in and beyond writing studies. In fact, because composing processes are concerned with more than writing, specifically alphabetic writing, I also turn to Chanon Adsanathama, Bre Garrett, and Aurora Matzke who write, “Composing with words, sounds, images, and motion using a video camera and audio editing software call forth different composing actions and processes from writers” (316). The notion of specific multimodal literacy practices will be addressed in the next section, though the idea of multimodal composing processes is folded into this subsection on process because it is a literacy practice difficult to separate at times from the composing processes my participants engage with during their grassroots cartographic work.
2.2.1.1 Hassan

When I turn to my participants’ observations about their composing processes, I note that these processes are dynamic and wide-ranging. In an emailed response to interview questions I sent him prior to our Skype interview, Hassan wrote:

From my perspective the composing process is pretty chaotic and just evolves as the terrain is defined. It’s been an exploration that never seems to have been replicated so yeah chaotic. But basic phase is Idea-infatuation-run around photographing/videoing (collection)-followed by remixing/editing/collaging-uploading and then testing and more testing. Only then does the map take “shape.”

In this response, Hassan emphasizes how physical his composing processes are, especially when he writes “chaotic” and “run around.” Part of Hassan’s composition process is to research the sites in the film by going to the sites. The body as producer of knowledge is an important tenant for feminist scholars who advocate for a critical awareness of the embodied nature of epistemology and research. Elizabeth Grosz, for example, writes about how knowledge is produced with the whole body and Lori Kendall writes in a self-reflexive manner about how her body responds to the research site and those she is researching (see also Madison, Sundén). Feminist rhetoric and composition scholars Jacqueline Jones Royster and Gesa E. Kirsch go one step further by noting the connection between embodied research and place: “A sense of place— the physical, embodied experience of visiting places—can become a powerful research tool and an important dimension of strategic contemplation…” especially when it is so easy to access information online, Royster and Kirsch write (92). They continue “…being on location, walking the streets of a town getting a feel for the land, the geography, the history all can enrich the creative and the critical imagination of the
These authors illustrate how learning can be enhanced through the embodied experience of being in the site that is researched. To be in the location enacts all of the senses and thus learning becomes a multilayered experience. Of course, all of the activities Hassan describes are physical and thus embodied as the body is inventing (“Idea”) and editing as much as Hassan moves through multiple places and spaces to compose. Composing processes then, can be understood complexly as knowledge-producing, and can also be understood within a feminist framework. Because the body offers opportunities to engage sites of composing, subjects of composing, and the self in a reflexive manner, the body lends itself to being a feminist method in composing process. Hassan, of course, does not name feminism in his description of his composing process, but as a feminist researcher I see the possible connections.

Another way in which to understand Hassan’s composing process as being physical and embodied is that Hassan discusses how he must be physically in the sites he maps to make sure the “Richmond Reclamation Project” is functioning correctly. In our interview he said:

Well, it all works best is if when you're at the location you're supposed to be, that the content is able to be accessed. And because everything is tied to a GPS coordinate, the only way to make sure that it actually is where you want it to be is to go out and test. When you, uploading the video and then tagging it with the GPS coordinates is all done virtually, so to speak … But it still means you have to go physically to a spot to make sure it's appearing where it's supposed to appear.

If grassroots cartography is a means to work within and against hegemonic Western cartographies, then I believe this idea of Hassan inhabiting the places he is mapping is a way
to enact this grassroots cartographic principle. If Hassan is physically in the places he is maps then he can experience the place more fully so when he represents these places in an art project, these places may be more complexly realized. So if Hassan’s composing process includes this embodied-in-place activity, he is engaging with an important grassroots cartography literacy practice.

Hassan’s composing process can be understood as pluralistic (“Idea-infatuation-run around photographing/videoing” and “remixing/editing/collaging-uploading and then testing and more testing”). Furthermore, Hassan alludes to how his composing process for the “Richmond Reclamation Project” is rhetorically situated. Specifically, Hassan says, the “composing … just evolves as the terrain is defined” and “It’s been an exploration that never seems to have been replicated…” So, while I believe Hassan engages with similar composing activities with other projects (invention, filming, editing), the process itself “evolves” depending on the project he is working on. This is a nice example of process and post-process theories and praxis operating together as the rhetorical situation of a “project” demands certain composing activities to be executed in ways to meet the goals of the project. Hassan demonstrates a fluency with composing process literacies as his composing processes are project and activity specific.

2.2.1.2 Will

In her article “Speaking of Composing (Frameworks): New Media Discussions, 2000–2010,” Courtney L. Werner analyzes rhetoric and composition literature to see how composing is framed within this literature. Werner categorizes the frameworks she observes in different ways, including a category she terms “foundational knowledge.” Werner writes, “Foundational knowledge conversations include discussions of why digital writing and digital textual
products are classified as writing: They explain the foundational knowledge that emphasizes how a YouTube video, for example, is composed in ways that make it a written text” (62). Werner also looks at “…scholars’ interests in understanding how writing changes when composing technologies are thought of broadly” (63), specifically software in relation to this quote.

Werner’s historiography is important in framing all of my participants’ composing processes because their maps are digital products and so their composing processes can be understood within the field of rhetoric and composition in relation to writing processes (see also Takayoshi and Selfe). Werner’s argument of foundational knowledge of new media, especially when combined with composing technologies like software, can be applied specifically to Will’s composing processes in digital spaces using specific software. For example, when I asked him about his composing process in our interview, Will said:

First thing I would have to get is the data, so once I have the data ready for OpenStreetMap, I use a program called Tile Mill, and then using Tile Mill, based on certain classifications of roads, I would then be able to decide, okay I want these roads to look like this, at this level. … this is now where I want these types of buildings to appear and stuff like that. Then if what I believe is an important road, doesn't match up how it's classified in OpenStreetMap, then I just go back and edit it in OpenStreetMap and it's like a reiterative process like that.

Will’s composing process at first sounds strictly linear: he must start with data and then use software, Tile Mill in this case, to do something with the data. However, depending on the elements of the map he is updating, the composing process will vary. This is because the codes will be different depending on what feature of the map he is adding: for example, a road
like he discusses here, will require different code than a building. Like the other participants, Will’s maps are digital, though he has the most knowledge in digital composing as it relates to software and computer coding. Thus, Werner’s discussion of foundational knowledge and composing technologies are especially relevant to Will’s composing process. In Will’s case, composing process as a literacy practice means that Will is able to access the data he needs to plug into a software and apply the necessary codes in order to update an OpenStreetMap map. This process is repeated, though it will vary depending on the feature Will is composing.

2.2.1.3 Aaron

Will also mentions that his composing process is “reiterative.” While the recursive nature of composing is true for all of my participants’ composing processes, I noticed the “re”iterative nature of composing processes especially when I examined Aaron’s mapping practices. In our discussion of composing processes, Aaron emphasized specifically the iterative nature of composing:

Yeah, definitely I am open to updates and make them frequently. In fact, I just made a big round of updates a few days ago because I now have released yesterday the full North American tribal map. There are about 1,200 tribes\textsuperscript{13} on it. While we were putting that map together I probably made changes on about 40 or 50 tribes throughout that area. Either adding new ones in or … Because of people’s feedback saying my tribe is actually left of location where you have it. I’ve adjusted locations and some phonetic name changes and things like that. It’s a work in progress that will never be done completely. (Personal interview)

The iterative nature of composing is discussed in Grant Eckstein, Jessica Chariton, and Robb Mark McCollum’s article on multi-draft composing for L2 writers. I find their guiding term

\textsuperscript{13} Aaron Carapella has since told me there are 1,500 tribes represented.
“iterative” fitting for Aaron’s composing process. They write, “We chose the word iterative for our model to emphasize the importance of repeating a procedure in order to finally arrive at a solution” and “Peer exchange was an important consideration of the iterative model” (63). The way Aaron describes how he revises his maps is iterative because he repeats his composing procedures: he continues to do archival research and he continues to make updates based on tribal members’ feedback, or “peer exchange.” However, Aaron believes that the maps he makes become more precise each time he revises them. Aaron, therefore, is literate with iterative composing processes as a means to improve his maps. That is, to make the information on his maps more widely-accepted by the community members he represents, Aaron returns to feedback from these community members and applies the feedback to the design of the maps.

2.2.1.4 Hagit

Though Hagit did not discuss her composing process explicitly, I noted different elements of her composing processes when reviewing the interview transcript and the intertextual mapping materials she produces. For example, her composing process includes building relationships with different community partners to begin community mapping projects. More specifically, the composing process for the map-making includes using a Public Lab-type DIY mapping kit with either a kite or a weather balloon, a string, and a digital camera. Based on photos from some of her community mapping projects, it appears as though Hagit has community members operate the balloon/kite/camera to take the aerial photos. Later, Hagit uses the Public Lab generated software MapKnitter to stitch the photos together. Like Will and Hassan, her composing process is very technologically oriented. As Aaron discusses, Hagit’s composing process is also very people-oriented as well. While each
project includes this process of balloon/camera/software activities, each project presents a unique rhetorical situation where the process plays out differently depending on the people, location, goals of the project, and other elements. Hagit’s literacy with composing processes means she can adapt her technological and relation-building composing activities to each mapping rhetorical situation.

In her article about writers “composing in internetworked, interactive environments,” Takayoshi notes how composing processes are layered. Takayoshi argues that writers—though this is true for many rhetors, including grassroots cartographers—“are negotiating multiplicity in writing task, purpose, audience, and technology. They not only juggle the multiple rhetorical tasks required by one act of composing, they are juggling multiple acts of composing, moving from one to another, making decisions about where to focus their attention and shifting gears between vastly different audiences, tasks, purposes, and genre constraints….. (10).” As they work through distinctive composing processes, the grassroots cartographers I interviewed negotiate and juggle multiple audiences, purposes, technologies, and genre constraints to varying degrees. As Takayoshi writes, my participants move from one composing activity to another, sometimes engaging with multiple composing activities at once, thus illustrating how their composing processes are layered, complex, and responsive to the situatedness of each map they make. My participants are all literate in composing processes particular to the mapping projects on which they work. To be literate in composing processes means the grassroots cartographers I interviewed are knowledgeable about the activities needed to create grassroots maps. They are aware of a general order of how these activities should take place, though they are also flexible with the activities and order depending on the rhetorical situation of each mapping project. Though certainly not
exhaustive, some activities that comprise the participants’ composing processes include physical or embodied activities, composing technologies, iterative practices, and relationship building. This diversity of activities demonstrates the complexity of how grassroots maps are created; therefore, composing as a literacy practices establishes how grassroots cartographers are deeply skilled civic agents.

2.2.2 Multimodal Composing

In her book *Locating Visual-Material Rhetorics: The Map, the Mill, and the GPS*, Amy Propen writes, “Scholars aligned with critical cartography...not only take as a given that the cultural work of the map relies on multimodality and intertextuality but they also understand the map as rhetorical, and as always already shaping and shaped by the cultural contexts in which it is immersed” (7). Here Propen provides a rich background from which to explore the multimodal composing literacy practices of grassroots cartographers. Orienting multimodality within rhetorical and cultural contexts reiterates the cultural and rhetorical nature of literacy practices broadly, and composing specifically. This orientation also reinforces the cultural subject-positions of the grassroots cartographers operating as rhetorical agents in community mapping projects. Furthermore, in their book *The Available Means of Persuasion: Mapping a Theory and Pedagogy of Multimodal Public Rhetoric*, David M. Sheridan, Jim Ridolfo, and Anthony J. Michel argue that cultural production should be considered the work of ordinary citizens and they argue for an increase of multimodal rhetoric in public discourses. Because grassroots cartographers are making grassroots maps for civic purposes within public discourses, multimodal composing is a necessary part of how grassroots maps are made within different cultural rhetorical contexts.

In addition to Sheridan, Ridolfo, and Michel, Pamela Takayoshi and Cynthia L. Selfe
situate multimodal composing within the history and field of rhetoric by writing, “In some ways, many classical rhetorical principles of communication—in which the study of composition is grounded—may be more difficult to ignore in audio and video compositions… To include additional oral and visual elements in composition might be seen as a return to rhetoric’s historical concerns” (5). Here Takayoshi and Selfe argue that elements of rhetoric’s Western canon—elements such as delivery which historically is dependent on oral and visual components—are emphasized with multimodal composing. Daniel Keller continues Takayoshi and Selfe’s trajectory by writing, “To be effective, the study and creation of multimodal texts should focus not only on how each modality is different or what affordances each brings to the task of making meaning, but also on the rhetorical uses authors can make of media and modalities and the ways in which both medium and modality can be employed to make a rhetorical appeal—or, more likely, some combination of appeals—to a specific audience” (50). Grassroots maps, like a majority of geographic maps, are visual. Some maps, especially for blind audiences, are also tactile14. Hassan’s maps are dynamically multimodal with audio, visual, and other sensory modalities, though Aaron and Hagit discussed how they want to increase the multimodality of the maps they make. These grassroots cartographers employ different modalities, as Keller writes, for different purposes and for specific audiences in their community mapping work.

2.2.2 1 Hassan

As Keller discusses, Hassan’s “Richmond Reclamation Project” is multimodal and with this multimodality Hassan is able to address specific purposes and audiences. For example, Hassan films his participants for the “Richmond Reclamation Project” so that current and future residents of Richmond can see and hear elderly African American tell

14 See, as one example, “Tactile Maps and Mapping” by Amy Lobben.
stories about their lived experiences in Virginia’s capitol. The audio and video nature of this project also highlights classical rhetoric principles that Takayoshi and Selfe allude to, principles reconfigured within digital delivery, a concept James E. Porter explores and which is also relevant to Hassan’s work. (Though I won’t explore Porter’s digital delivery tenants directly here, the tenant of Body/Identity is explored explicitly throughout the dissertation.)

Furthermore, Hassan’s art projects, even if they do not always include “traditional” maps, are primarily location based. Exploring locations in a multimodal fashion makes the representations of these places more nuanced. In our interview, Hassan described the multimodal composing process for all of S/N’s projects in a compelling way:

Well, I think for the, in all of the projects, it’s all about going out into the world and just sort of seeing where things are. Then in the past, when the motivation has been primarily textural, getting the physical textures of locations, whether it be buildings, sidewalks, dirt, whatever, it’s about trying to find these interesting bits and then recording them, filming them, getting audio as well.

This description is wonderfully phenomenological, especially in how unexpectedly the description of texture captured in film is suggestive of tactile senses. Though I did not ask Hassan, I wonder if some of the cultural influences he previously referenced, specifically Dadaism, informed his multimodal composing practices as he seeks to include the texture of locations he films. And while Hassan notes that in previous projects the focus has been on texture, the multimodal nature of the “Richmond Reclamation Project” is much more intertextual as it relies on and incorporates various video formats (filmed interviews, location shots, archival footage) and other digital formats like Google maps. Therefore, as Propen writes, Hassan’s current mapping project is cultural, rhetorical, multimodal, and
intertextual in interlocking ways.

2.2.2.2 Will

While Will did not speak specifically about multimodality in our interview, it is clear that his maps are multimodal (see, for example, figure 15). Like all of my participants, his maps are digitally produced and like Hagit and Aaron specifically, his map contains both visual and alphabetic modes. Will’s maps are primarily digital and so the circulation possibilities of multimodal maps are fairly dynamic. Sheridan, Ridolfo, and Michel and Porter address circulation as an important factor with digital multimodal composing in that the rhetor must consider how their multimodal composition will be circulated once it is produced. In our interview, Will did address the practice of circulation when we discussed a map he made about downtown Cleveland’s parking. Will said, “I actually just have circulated it through, mostly through Facebook, so like a couple of my friends who work professionally planning and with downtown businesses and stuff.” Will went on to say he wasn’t sure who of his friends in government had seen the map so he was unsure of what effect the map had. Nevertheless, Will was clearly aware of the need to circulate the map through digital channels as one way to bring about civic change. While Will’s literacy in digital multimodal composing appears fairly advanced when looking at the end product, it is also important to consider his literacy with less-product oriented elements of the map, that is, its circulation. Circulation and its related rhetorical principles, such as delivery, are multimodal composing practices that Will, and all of my participants, are literate in to varying degrees.
Many of the maps Hagit initially made were multimodal primarily because they included text naming the places they represented. However, over time her maps have evolved to become multimodal in more dynamic ways. This is because Hagit faces different obstacles inherent in community projects, mapping and otherwise. Some of these obstacles include the imbalance of novice and expert knowledge, insider and outsider knowledge, and how to ethically represent voice and story. In an one article, Hagit writes through some of the questions and possible solutions she has considered to address these obstacles. She writes in “Where do the Maps Go?”:

The people I was working with had a story to tell on top of that aerial photograph they created. They re-appropriated 'the master's tool', the same tool that is being used in order to erase their presence and identity off the map, or to rationalize plans for destruction and regeneration in the city that ignores their local perspectives. They have created aerial photography in Silwan, Beit
Safafa or in Ein Karem, but they had to stand, physically, right beside it to give it their voice and knowledge… I imagine it not only as a post-production activity but as a public event. Maybe we need to think about prototyping machines and sensors that allow to annotate in public space by anyone who passes-by, by stepping on the image, writing and drawing on it, and turning these bodily actions to digital input that can be later be ground for online engagement.

In this excerpt from her article, multimodal composing—writing and drawing, annotating—becomes a possibility to address ideas of erasure, an important consideration for feminists (see Glenn, “Truth, Lies, and Method…”; Lunsford, ed. Reclaiming Rhetorica; Monberg; and Royster and Kirsch). Notably, Hagit also discusses the embodied nature of these multimodal composing possibilities: that literal voice and bodily presence of her community partners will give further voice to the maps her partners create. Her mention of circulation in public spaces also speaks to Sheridan, Ridolfo, and Michel’s idea of multimodal composing being produced and circulated by everyday citizens as a form of public rhetoric. Her ideas of multimodality also suggest intertextuality, which can be seen, for example, in figure 16 where community partners, primarily children in this example, took photographs and wrote notes as additional contextualization on the map. This intertextuality enhances the multimodality of the map, and it also enhances the rhetorical effectiveness of the map because the rhetors’ voices are represented more fully. Hagit’s literacy with multimodal composing is already powerful even as it continues to develop.
Aaron’s maps, like the other participants’ map, are multimodal primarily through visual representation of geographical features and alphabetic text. Aaron’s maps are created digitally and can be accessed and thus circulated digitally, but their primary delivery is print so they can be hung on the walls of classrooms and cultural centers. However, in our interview I asked Aaron how he envisioned the maps evolving. He replied:

I would like to make an interactive map. One that not necessarily goes through a timeline in history but one where you can hover over each name and maybe have an audio clip from a Native speaker of that tribe where they pronounce their tribe’s name which is kind of an issue. A lot of people are like how do I say these names? Another things is when you hover over it or click on it, it will bring up a bio of the history of the tribe, maybe some links to some good sources like the tribe’s official
This response opens up exciting possibilities of multimodal composing for Aaron, and it opens up exciting possibilities for his diverse audiences. Aaron’s audiences, for example, will have a richer learning experience if they can hear tribal names pronounced, especially if they do not have a foundation of how to pronounce the tribal names themselves. Aaron also resists the idea of embedding a linear spatio-temporal multimodal element to the map. Instead, it would be up to the audience to access the different modes—audio and additional text—in their own way. This element may appease some of Aaron’s critics who disagree with the current, static presentation of the map and the information it represents. The multimodal possibilities Aaron discusses also suggest more opportunities for agency as tribal members’ voices would be heard, literally, through the map. Multimodal composing for Aaron is a literacy practice that is functional now but which has the potential to develop over time in ways productive for him, for the people his maps represent, and for those who purchase his maps. By this I mean that while the Tribal Nations Maps are currently multimodal with images and words, including audio or even audio-visual modes such as film would allow the maps to represent people more dynamically in that literal voice can be given to tribal names. People who purchase the maps who are not aware of these pronunciations can hear Native languages from tribal members and thus their learning can become more nuanced and more embodied. These extra multimodal dimensions could make the maps more desirable for purchase and therefore more economically productive for Aaron. However, incorporating additional modes into the Tribal Nations Maps could also be more productive, or, perhaps, more vibrant for Aaron because he could also experience the embodied nature of hearing tribal names pronounced in relation to his maps.
2.2.3 Section Conclusion

My participants engage with composing literacy practices in numerous ways, but I have explored here how process and multimodality are critical in how they access and produce meaningful knowledge when creating grassroots maps. During the composing process, the activities that grassroots cartographers engage with and the fluid order in which the activities are engaged are rhetorically situated. Sometimes the activities and order are iterative despite the rhetorical situation. The multimodal nature of their composing addresses the civic purposes of different audiences as grounded within culturally rhetorical contexts. My participants are literate along a spectrum of ability with composing literacy practices, especially regarding multimodality. However, I see that all of my participants are interested in challenging their literacies with their composing, especially with the multimodal possibilities of the grassroots maps they create. This is a nice reminder that neither literacy practices nor the rhetors who engage these practices are static: the practices and the rhetors themselves continue to evolve. This is important because community meaning making work, civic rhetorics, also evolves and will need rhetors and literacies to evolve along with these civic rhetorics.

2.3 Intercommunal Practices

Intercommunal literacy practices are comprised of three components. For one, my participants have to be able to practice mediation, or what Guiseppe Getto, Ellen Cushman, Shreelina Ghosh describe as “forging and delineating social connections” (162). Because my participants work within and across different communities, mediation is necessary for the grassroots maps to be made. Secondly, because my participants are working with communities they may not culturally identify with, my participants must practice cultural
humility which is the act of validating and respecting other cultures (see Guskin as cited in Cress et al.). Finally, to be able to respectfully work across cultural communities means my participants must practice cultural self-awareness (Cress et al.). This is because if the grassroots cartographers are not aware of the biases embedded in their intersectional cultural identities, they will not be able to work effectively with diverse populations. Again, if literacy is being able to access and produce knowledge in meaningful ways, intercommunal literacy practices allow the grassroots cartographers I spoke with to access the information they need from the communities they work with, and to produce grassroots maps in empowering ways with these communities.

2.3.1 Will

For a grassroots cartographer to be literate in intercommunal practices means that the cartographers honor and utilize local expertise while matching it with their own expertise. This exemplifies a facilitation of cultural self-awareness and cultural humility as grassroots cartographers must recognize the cultural knowledge community members posses while they also exercise their own cultural knowledge of cartography, communication, and civic change. In our interview, Will discussed how he worked with the local knowledge of Haitian university students when he traveled to Haiti as a HOT member in 2010. Will and his fellow HOT crew members traveled to Haiti after the 2009 earthquake in order to update OSM disaster relief maps. While there, the HOT members partnered with university students to teach the students about cartographic principles and how to use OSM tools. However, Will acknowledged the great importance the students played in updating the maps. He said, “…they were to add local businesses, schools, different places of reference that they deemed important and added them into the map.” If Will and his fellow HOT members did not value the local
information the students provided, not only would Will and his colleagues have enacted imperial thought and practice by situating the Haitians’ knowledge as “regulated to the past” (Mignolo 186), but the maps would not be as accurate or complete. Working across communities with different (and similar) cultural knowledge was necessary in order for the disaster relief maps to be executed. Nancy A. Naples writes about the dynamic of insider and outsider knowledge and explores how people occupy multiple positions within research or other rhetorical projects. The outsider knowledge Will brought to the Haitian map was important, but so was the insider knowledge of the students. Both Will and the students occupied positions of knower and learner during the mapping project.

### 2.3.2 Hagit

Hagit also recognizes the importance of working with local knowledge when creating geographic maps for civic change. However, she complicates this idea of local knowledge with how local knowledge is situated within global contexts. For example, though Public Lab was extremely influential in how she developed her mapping abilities and her commitment to community empowerment, she knows she cannot apply Public Lab’s philosophies and practices as a universal application to the projects she works on in Jerusalem. While there are similar objectives in the community mapping projects Public Lab members in the U.S. and Hagit in Israel organize, there are also many different cultural nuances, expectations, and realities to ignore. However, there it can be empowering and powerful to make connections between local and global cultural goals and contexts. In our interview Hagit said:

> When you are using a toolbox or tools and technologies and ideas and concepts that are not only relevant locally but are rather than for people around the world. It’s creating a different kind of perception of what you are doing. It creates a network that
suddenly your local activism is part of a bigger network, both in terms of technologies and in terms of issues that course people to do these kinds of mapping…Yeah, it’s giving new significance to your local work when you connect with tools and issues that have relevance not only locally but also in wider circles for wider audiences for wider publics.

Despite this significance of making connections across contexts, Hagit is acutely aware that while she has access to and expertise in a more global infrastructure like Public Lab, the community members she works with often do not have this knowledge or expertise. Like Clifford Geertz who advocated for and relied on local knowledge, Hagit also operates with the local knowledge and other cultural parameters that allow her to create the grassroots mapping projects with communities in Israel. If she did not honor this local knowledge, she too would be enacting imperial and colonial practices by attempting to force the Public Lab’s infrastructure—a U.S.-based infrastructure—on the diverse communities of another country.

2.3.3 Aaron

In addition to working across different forms of expertise, intercommunal literacy practices mean that participants privilege cultural heritage and cultural integrity above other factors. An example of this emerged when I interviewed Aaron. Aaron told me about an instance when he had to override his graphic designers who privileged design principles in order to privilege the cultural integrity of the American Indian tribes his pre-contact maps represent. Aaron said, “Sometimes they’ll (graphic designers) want to do things like move a tribal name over because it fits better and I’ll have to explain to them it might fit better there but you’re going to get 10,000 angry tribal members because we just put their tribe into an enemy tribe’s territory.” Aaron not only possesses the knowledge of
tribal histories, but he also has the desire to honor these histories. This desire stems from his own Cherokee identity, but it also stems from a cultural humility to honor all of the many and diverse tribes represented on his pre-contact maps. So, while the graphic designers want the maps to look a particular way based on their cultural association with art and design, Aaron has to mediate or communicate to the graphic designers that what is more important to him is cultural integrity of the people they are representing on the maps they create together. Honoring the cultural integrity of American Indians in regards to maps is also important because of tribal relationships to the United States government and the government’s long history of cartography regulating land and subsequent political and cultural rights (see chapter 1). Therefore, Aaron’s commitment to tribal members’ cultural integrity demonstrates intercommunal literacy.

2.3.4 Hassan

Another example of honoring cultural integrity emerged from my interview with Hassan. While Hassan identifies as being African American and his participants are also African American, he understands that there remains differences between himself and the older generation he interviews for the “Richmond Reclamation Project.” He also recognizes the importance of preserving the stories his participants share with him for his interdisciplinary art project. Hassan said, “You have to acknowledge that really what you're trying to do is make sure that these stories are told. … at the end of the day, what these people say, you want to do right by them.” Hassan also went on to say that while he feels like a “curator” of the stories he collects through filmed interviews, he also feels like a “caretaker” of the people sharing their memories on film. This sentiment echoes Nel Noddings’ ethics of care philosophy, a philosophy that emphasizes relationships and which puts Hassan in the position of the carer, or
the one who attempts to get a greater understanding of those cared for, his participants. The sentiment of caretaker also echoes intercommunal literacy practices that aim to mediate across cultures and communities while also respecting the similarities and differences between these communities. Hassan respects the intergenerational similarities and differences he experiences with his participants and as a result he wants to “do right by them.”

2.3.5 Section Conclusion

As mainstream and ubiquitous texts, geographic maps are cultural and rhetorical, and they are also frequently steeped in a hegemonic cartographic tradition. As part of this tradition, maps have been used to further marginalize already marginalized populations who have been disenfranchised because of their relationships to land, government, and other forms of power. Grassroots cartographers are rhetors who attempt to work within and against such traditions in order to make maps with marginalized communities. Their objective in making grassroots maps is to leverage community change for these communities. There are numerous literacy practices in making grassroots maps, but a foundational practice is an ability to be intercommunal, or to work across communities with a sense of one’s own cultural positionality as well as a sense of and a respect for other cultures.

The grassroots cartographers I spoke with demonstrated a fluency with intercommunal literacy practices. They operated with a keen sense of their own intersectional cultural subjectivities and they are aware of the cultural differences and similarities between themselves and the community members they work with. In addition to honoring their own knowledge and expertise, they utilized and honored local expertise in order to create grassroots maps. Furthermore, my participants honored the cultural integrity of the people they work with, sometime by sacrificing other principles of the maps they make. The ability to

15 Professor Emerita of Geography Judith Tyner writes, “(M)aps do more than simply act as a mirror of culture and knowledge. They also transmit ideas and images either passively or deliberately.”
work across cultures and communities demonstrates an ability to work against imperial thought and practices because these practices dismiss and devalue the plurality and richness of non-Western thought. The literacy practices of grassroots cartographers are diverse themselves, but an intercommunal literacy practice serves as a foundation to leverage civic change through the rhetorical work of grassroots maps.

2.4 Technological Practices

Technological literacy practices are a major component of how my participants make grassroots maps. These practices fall into two categories: Technological Tools and Skills and Technological Communication. The Technological Tools and Skills subsection looks at how my participants are skilled with different so-called lo-tech and hi-tech technologies; these interconnected ideas of technological literacy can be contextualized with Jay David Bolter’s argument that technology should be understood as “…skills as well as machines” (15). Stuart A. Selber’s concept of functional, critical, and rhetorical literacies for computer literacy bridges Technological Tools and Skills and Technological Communication. To be functionally literate, my participants must be skilled in the use of technological tools. To be critically literate means grassroots cartographers can analyze the rhetorical context in which technological literacies operate: they must understand the cultural, political, and historical ways in which technology functions in society. Finally, being rhetorically literate means my participants are able to create technologies with technological tools. Technological Communication allows grassroots cartographers to accomplish all three of these literacies.

Despite a perhaps misleading title, Technological Communication does not refer to the field of technical communication, though scholarship from a tech communication journal informs my definition of this literacy practice. In his article “Technological Literacy as
Network Building,” Jason Swarts writes about the “messier, ‘softer’ skills” in technical communication, specifically, the ability to “communicate, to collaborate, and to manage complex projects across disciplinary and geographic boundaries” (274). So while Swarts positions these skills within places of employment, I identify my participants as adeptly communicating, collaborating, and managing complex projects using technological “skills as well as machines.” In short, being able to talk about and use technologies with other people to complete community mapping projects demonstrates technological communication literacy. As with many of the literacy practices in this chapter, these two technological literacy practices overlap. They are part of what Amber Beck calls “larger literacy ecologies” (10) and they “demonstrate the importance of situating literacies of technology-and literacies more generally-within specific cultural, material, educational, and familial contexts that influence, and are influenced by, their acquisition and development” (Hawisher and Selfe “Becoming Literate…” 642). Therefore, at times conversations of one literacy practice may appear in the discussion of the other.

2.4.1 Technological Tools and Skills

When objects like pencils are considered technological tools then it is clear technologies are a part of all of our lives. However, technological tools such as digital hardware and software are a prevalent part of society, even in many marginalized communities. This is a phenomenon that scholars like Jeffrey T. Grabill document when he writes about “…the deep penetration of information technologies into peoples’ everyday lives” (Writing Community Change 9). While Grabill uses the term information technologies to name what I call technological tools (though I also use technologies interchangeably throughout this section, and also include lo-tech tools like the pencil as part of my
discussion), Courtney L. Werner writes about *composing technologies*. In her article chronicling rhetoric and composition scholarship on technology, Werner writes, “Composing technologies conversations discuss how writers write outside of academia: They describe the tools writers use to create new digital texts (such as hypertext). Rather than suggesting what types of products are being composed, composing technologies emphasizes how texts are being produced” (62). Both Grabill and Werner help to position technological tools as central to non-academic communities, and Werner specifically suggests the role technologies play in literacy practices when she writes about how texts are produced with technological tools.

Finally, Stuart A. Selber writes he wants students to think “…critically, contextually, and historically about the ways computer technologies are developed and used within our culture…(9) ” Extending this concept to all citizens and to technologies broadly, the rhetorical contexts that surround technological tools and skills is important when considering these literacy practices.

There are some technologies all of my participants use, and there are some tools that are unique to each participant as the type of grassroots they make are unique (see figure 17 for a visual of some of these technologies). However, all of the participants use digital technologies as the predominant way in which they access and produce knowledge to make grassroots maps.
When I emailed Hassan a list of research questions and asked broadly how he made maps, including materials used, he responded, “Google maps (derived from open maps), YouTube and as of late Layar Augmented Reality Browser. However, as far as research, we have looked and may models and modes that stem from “alt mapping,” AR (Augmented Reality) practices, and interactive gaming seek and find maps like Dead Drops and Geo Caching” (Personal email). Aaron named a free open-source software program called Inkscape and discussed how his graphic designers complete his initial work in Inkscape, but he didn’t name what software they use. Aaron also has a website for Tribal Nations and uses email to receive feedback about his maps. Will mentioned “…new software like Carto DB, Tile Mill, D3 that enable you to make these multilevel web maps…” and also discussed online forums and social media he uses to learn about mapping. Hagit, both in our interview and in her articles, mentioned such tools as map meters, weather balloons, web-based software, and peripheral tools (what she used to document or write about mapping) like Flickr and” the Public Lab Wiki page” (Hagit, Personal interview). Though their research is about social media
specifically and technology literacy broadly, scholars such as Buck and Dadurka and Pigg write about how such practices are important to “larger systems of literate activity” (Buck 35) and “participatory culture and social interaction” (Dadurka and Pigg 11) The partial list of technological tools demonstrates the broad literacy range my participants have with different types of hardware and software, thus illustrating how grassroots maps have the potential to be made in larger systems of literate activity and participatory culture.

2.4.1.1 Hassan

In addition to specific technological tools, I was also interested in the skills needed to operate these machines. In my email to him, I asked Hassan what skills were needed and he said, “… basic web literacy for the mapping (i.e. read the tutorial on how to make a “my map” on Google). The most involved might just be the mixing/editing/collaging for the video and audio. .. But at its basics for video is camera and basic editing know how combined with the ability to upload content and make a blog” (Personal Email). He also discussed how computer programming was needed but that he and Jennida had to “farm” this particular practice out to professionals because they were literate in programming to the degree they need for the “Richmond Reclamation Project.” (The literacy practices my participants do not have is an interesting but divergent line of exploration that cannot be explored in this research project.)

2.4.1.2 Hagit

Of all of my participants, Hagit spoke specifically and contextually about the importance of technological literacy in the community mapping work she does. In our interview she said:

Well, I think it’s mostly about engaging with technology, with the technological process, not only it has to do with photography, it has to do with building and
hardware and gaining these kinds of skills. Learning also how these things are made, how aerial photography is made. Using also the web-based software, the map meter is also another stage in this process with using GIS tools and also for me all this process was relevant, and all I know about aerial photography and its politics and the politics of mapping is through these kinds of activities and of course about open source technology and how it works. I think the deepest learning is through going through the technological process and doing it for your own needs and then realizing the power of this tool and the fact that you can do it yourself is very significant. Creating such amazing images with such amazing quality that serves your purposes is very powerful for people.

In this quote, Hagit names specific technological tools, such as map meters, web-based software, and geographic information systems. Knowing how to use and even build these tools “for your own needs” suggests a grassroots orientation where people who may often be outsiders to “elite” digital practices learn how to work with and even make digital technological tools such as map meters and GIS instruments. Though at times Hagit seems to struggle with her outsider/insider position in relation to technologies, here she suggests that both she and her community partners have the potential to be skilled with the machines needed to make grassroots maps. Hagit’s efforts to make such skills possible for her community partners, in addition to teaching herself how to use these technologies, suggests a grassroots sensibility.

Furthermore, Hagit emphasizes the process of using specific tools, which suggests how literacy with such tools is not an isolated practice: to operate a technological tool means to know its different parts and the purposes for each of these parts. This idea of process begins
to suggest the rhetorical nature of technological tools. For example, Hagit discusses the politics of aerial photography and mapping and the philosophy of open source technology. These political and philosophical (which is also political) contexts affect how Hagit does her community mapping work with different technologies. It is precisely because aerial photography and other digital technologies are used for military, national, corporate and other oppressive purposes that Hagit chooses the technologies she uses to make grassroots maps. She and her community partners are using “the masters’ tools,” as she writes (“Where do the Maps Go?”) to do civic rhetorical work. The larger rhetorical situation influences the choices Hagit makes in choosing her specific tools and in deciding how to apply those tools to her mapping work.

The rhetorical situations surrounding technological literacy practices are not unique to Hagit, of course. Due to personal purposes, audience needs, kairotic opportunities, and other rhetorical elements, my participants use a number of technological tools and skills to carry out the community mapping work they do. Because my participants occupy relative positions of power compared to some of the marginalized communities they work with (even if the participants also occupy marginalized positions in society), they are able to access the knowledge and resources to use a diverse range of technologies and skills, primarily digital technologies. The participants utilize technological literacy practices related to machines and skills to bring their community mapping projects to fruition.

Of course, when discussing technological literacy practices, it is important to consider how such practices can re-inscribe hegemonic systems. For example, Cynthia L. Selfe and Richard J. Selfe write about “…the political and ideological boundary lands associated with computer interfaces…”—a concept I believe can be applied to technological practices and
infrastructures more broadly. Selfe and Selfe go on to write:

We also talk about the ways in which these borders are least at partly constructed along ideological axes that represent dominant tendencies in our culture, about the ways in which the borders evident in computer interfaces can be mapped as complex political landscapes, about the ways in which the borders can serve to prevent the circulation of individuals for political purposes. Within this context, we talk about computer interfaces as maps that enact—among other things—the gestures and deeds of colonialism, continuously and with a great deal of success. (481-2)

Kristine L. Blair concurs with this stance by writing, “…it is vital we pay attention to the cultural, political, and material conditions that impact access to these technologies” (63). In short, it is necessary to “pay attention,” or to engage with critical literacy when engaging with functional and rhetorical literacies. Because of the colonial implications Selfe and Selfe outline, it is critical to be reflexive of technological literacies used to make grassroots maps with marginalized communities. If not reflexive, then grassroots cartographers risk further marginalizing the people they work with. These implications are another aspect of the rhetorical situation surrounding technological literacy practices.

2.4.2 Technological Communication

The literacy practice of technological communication is the way in which I define how my participants talk and write about technology—how they work with others with technology—to make maps. In his article on technological literacy, Jason Swarts writes, “Technical communication involves moving people as much as it involves moving information. In addition to creating documentation, there is the behind-the-scenes work of gathering information, collaborating, distributing labor, and gaining buy in. There is no reason
not to see this kind of work as an extension of technological literacy…” (Swarts 274-75). I connect Swarts’ argument to Jeff Rice’s “rhetoric of the network” (43), or to the concept of an infrastructure made possible by the relational and communicative systems of the database and of the network. This technological communication is also a form of knowledge work by knowledge workers (Grabill Writing Community Change; Diehl, Grabill, Hart-Davidson, Iyer; Swarts), or applying analytical thinking and abstract reasoning specifically about technology to complete complex projects, that is making maps with other people.

Technological communication allows my participants to make grassroots maps in a few different ways. For one, communicating with others about technology has allowed my participants to learn more about technology to complete the community mapping work they do. This is where the literacy practice related to technological tools and skills overlaps with the literacy practice of technological communication. Communicating with others about technology also means that community partners are learning more about technological tools and skills from the grassroots cartographer. Technological communication describes the shared language and actions of working with technology as it happens: i.e. Open up this browser or Hand me the Canon A495\textsuperscript{16}. Thus, technological communication is also a discourse, one that changes slightly or greatly depending on the rhetorical situation of each mapping project.

When I look at how my participants have learned about technology by communicating with others about technology, different examples of technological communication emerge. Hagit, for example, said “When I consult with Public Lab it’s mostly about technology rather about anything else” and Aaron discussed how he and the graphic designers he works with negotiate design and rhetorical choices based on technological opportunities and limitations.

\textsuperscript{16} https://publiclab.org/wiki/balloon-mapping-materials
Through emails, Public Lab Wiki pages and face-to-face events, or comments on her Public Lab articles, Hagit actively employs the technological skills she learns from other Public Lab members. Though Aaron does not engage with the same technological practices that his graphic designers engage with, I imagine Aaron’s technological literacy for skills and machines grows as he must consider how his vision for the Tribal Nations Maps can be executed through technological means. Finally, when I reviewed my interview with Hassan, the word “we” appeared throughout the transcript, suggesting that through their creative partnership, he and Jennida are continuously communicating with and learning from and with each other about the technology they need to complete their projects.

2.4.2.1 Will

Will uses online forums, social media like Twitter, and face-to-face events to talk with people about technology in order to make maps. When I asked Will about mapping communities he is a part of, Will described more deeply one particular online forum he uses as a means to learn:

I guess very briefly I'll just talk about Cartotalk… There's probably people that post there one post maybe every three or four days if that. There are a lot of professionals there, who seem like they've been doing it for a while and were relying on some of the older map software. I posted a couple of maps on there before and they were helpful in terms of, I think especially more from a theoretical standpoint too…okay this is why you shouldn't do this because of the (lost audio) cartographic principle, generally you shouldn't do this.

Here Will talks about how this forum has participants who have a range of both cartographic and technological knowledge (which are difficult to separate). He mentions “theoretical
standpoint” he has learned about and he mentions software, specifically an “older map software” which suggests that Will has a type of knowledge in this forum that the so-called professionals may not have; that is, he is more aware of and utilizing more current software. This also suggests the idea of technological communication where the participants are teaching others about technological literacy practices in order to conduct their community mapping projects. This idea of technology and vertical communication, rather than top-down, is similar to Daley-Portman’s contention that, “After all, due to the affordances of digital technology, and social media of Web 2.0 in particular, many members of this generation (millennial) locate themselves in peer-to-peer, rather than top-down, knowledge sharing communities and seem to define their role as citizens largely in regard to “staying informed” and “sharing information,” as several of my students insist (110-11). Will is the only millenial of my participants and while he did not identify citizenry in the way that Daley-Portman’s students do, sharing information, sometimes with peers in MapTime and OSM communities and sometimes with people with different types of expertise, like in Cartotalk, suggest a grassroots epistemology and ontology. This is because this type of sharing information destabilizes or problematizes hierarchies of knowledge.

Just as how my participants have learned more about mapping technologies from others, they have also educated community partners about technologies in order to carry out community mapping work. Will, for example, discussed the MapTime and OpenGeoCleveland meetings he organizes where people can share mapping and technology ideas and practices. I traveled to one of these meetings in the summer of 2014 and observed Will presenting to a group of about 20 people. In the quote below Will refers to this presentation and to MapTime:
There's these environments where they meet every couple of weeks or even as often as once a week where people can simply come together and through presentations or just more interactive tutorials where people would bring their laptops...similar to how I did at the end of my last presentation that I did where they can show you basics of how to make you own web map and it's really exciting. (Personal interview)

This quote suggests how learning about technology is both horizontal and vertical: technological communication occurs amongst participants of MapTime but also Wills “shows” the audience how to make a web map. Like Will, Hagit teaches mapping technologies in the workshops she runs, even though she said, “I don’t really teach people…it’s more about really learning how to do it and then all these kind(s) of understandings come with doing” (Personal interview). There are some, or many, points where Hagit engages with technological communication so that her community partners know how to connect the digital camera to the weather balloon or how to snap the aerial photographs once the hardware is up in the air.

Knowing how to communicate about these technologies and technological processes allows the technological work to be carried out by people other than the grassroots cartographer.

2.4.2.2 Hassan

I, too, learned more about technology by discussing how my participants use technologies for grassroots maps. This technological communication was important for me not only to understand how my participants map, but also so I could ask better questions to learn more about their literacy practices. For example, when I interviewed Hassan, I had a hard time understanding what the application Layar was and how it and augmented reality were part of the “Richmond Reclamation Project.” Below is an excerpt from our interview where Hassan practices technological communication to explain these technologies to me:
Hassan: Layar is a program, it's an architecture that, essentially it's open source, but it is, like the technology, for example, if you have the Yelp app, there is a thing that you can open up called the Monocle, and all it does is it just opens up the camera on your phone. Instead of in list form of showing you all the different restaurants that are nearby, it just shows them to you placed on your video screen...

April: Like more spatially defined?

Hassan: Right.

April: Okay.

Hassan: The idea is, the way that that's sort of shown to you is based off this particular architecture that's open source. You can download the browser just itself as a free app. You can go through and you can punch in these different qualifiers that will define the data that comes up, so you can pull up points of interest that are all based on Flickr posts or YouTube posts, and it's all based on location. You can say, "I want to see everything that's within like a five-mile radius," and they'll just kind of populate spatially, depending on how and where you turn, because everything is based on GPS.

This exercise in technological communication was extremely helpful to me because it grounded me in understanding what the “Richmond Reclamation Project”—a multifaceted technological art piece—is supposed to look like and to entail as an embodied experience. My participants, just like Hassan here, have to explain, teach, and contextualize technological tools, skills, and processes to their community partners so that the partners can get the “big picture” of what the mapping project might look like just as much as how the mapping work is
carried out. Technological communication encompasses a fluid process of the participants learning and teaching and operating along a scale of beginner to expert depending on the type of technology used and how it is employed.

2.4.3 Section Conclusion

For grassroots cartography, technological literacy practices include knowing how to use technological tools and knowing how to talk about technology so that the civic rhetorics of grassroots mapping can get done. Like Selber’s concept of multiliteracies, my participants must be functionally, critically, and rhetorically literate with different technologies. They must know how to use specific technologies, how to question the purposes and broader contexts of technology, and how to make maps by producing technologies. These literacies are part of an ecology of literacy practices, or a network of literacies, to use another theory as metaphor. Technological literacy practices, just like rhetorical, composing, and intercommunal literacy practices, are relational and rhetorical. These literacies are practiced in an interlocking manner just as they are practiced within certain rhetorical contexts that are cultural and political.

3. Civic Rhetorics: “Reimagining Already Conquered Territory”\(^\text{17}\)

What I have learned from conducting research for this project is that civic rhetorics are infrastructures comprised, in part, of literacy practices. Infrastructures, Guiseppe Getto, Ellen Cushman, Shreelina Ghosh write, are “…networks of resources and activity…” (170) and Jeffrey T. Grabill builds on this by writing, “Infrastructures enact standards, they are activity systems, and they are also people themselves (and all that people entail, such as cultural and communal practices, identities, and diverse purposes and needs…” (\textit{Writing Community}

\(^{17}\) Hassan Pitts (Personal interview)
Civic rhetoric thus equals an infrastructure of everyday people with different identities, resources, and literate abilities attempting to enact community change. It is an example of what Richard J. Selfe calls “sustainable communities of practitioners” (168). This infrastructure involves various forms of labor, from physical labor to knowledge work, and different material realities all encompassed within culturally informed rhetorical contexts. Thus, a civic rhetorics infrastructure reflects my feminist standpoint and feminist framework where everyday spaces, labor, global power structures, embodied experiences, and the lives of marginalized people intersect. This framework echoes the time-space theory of feminist cultural geographers who focus on labor in everyday spaces and it echoes Sarah Ahmend’s theory of queer phenomenology where the “lived experience, the intentionality of consciousness, the significance of nearness….and the role of repeated…actions in shaping bodies and worlds” (2). This framework also is an example of Royster and Kirsch’s argument about how the “interests and concerns” of women are “embodied by the lives as lived” in their respected part of the world (92). In other words, just as my feminist framework is attuned to how the repeated actions of people living their everyday lives in and across spaces of culture and power, civic rhetorical infrastructures are shaped by activities of people operating in culturally-oriented spaces as affected by locally and globally contexts of power.

3.1 Hagit

It was my interview with Hagit that pointed me towards the idea of infrastructure and from there I was able to connect civic rhetoric and literacy practices to this concept. When I asked, Hagit named infrastructure specifically when she spoke about what she has learned from Public Lab, albeit applied to her local context:

I feel that the learning process is much more significant in terms of it’s not only doing
the aerial photograph but it’s also learning the importance and the significance of open source practices, of creating infrastructures over for sharing information and knowledge for making these things accessible locally in our context... In order for people who are involved in all kinds of burning issues, local issues, in order for the whole process to be relevant and not only creating the aerial photograph, you need to create a local infrastructure and like what I started to say about Public Lab of Jerusalem can be a local infrastructure. For that to be effective it needs to create these kinds of online and offline tools like the Public Lab creates but adapted to local context. Local language, local needs and etcetera.

Here Hagit suggests how infrastructure is comprised of values (“open source”) and practices (knowledge and information sharing). Because grassroots cartography is related to people, places, community, and creating opportunities for equitable access to materials and equitable representation, Public Lab is a good example of a civic rhetorics infrastructure that supports grassroots cartographic work.

Furthermore, Hagit said, “I understand that all these ideas about DIY … and accessibility and democratization and about these technologies, it cannot work unless there is strong community that assists and helps and makes it possible for people … people who have the time, the resources, the digital literacy and all the things you need in order to participate in these kinds of activities online and offline” (Personal Interview). This is a critical quote in my understanding of how civic rhetorics, infrastructure, and literacy practices come together. While Hagit underscores philosophies important to grassroots cartography— accessibility and democratization—she emphasizes the community nature of grassroots and civic rhetorical work. It is the community and what the community does and can do—literacy and rhetorical
practices—that create an infrastructure to bring about community change. People and resources are named by Hagit, two things Grabill and Getto, Cushman, and Gosh name as critical to infrastructure. Digital literacy is also named by Hagit, and so it is clear to Hagit the literacy practices are necessary for community work, and for the infrastructure to do this work.

Digital literacy is a major component to all of the participants’ cartographic and community practices as they communicate through digital technologies with other map makers and as they make grassroots maps with digital tools. However, broader technological literacies inform the civic infrastructures Hagit builds and contributes to. For example, she uses lo-tech tools in the Public Lab DIY mapping kits as part of the mapping composing process. Hagit also communicates with Public Lab community members and community partners in Israel about technology. Furthermore, Hagit engages rhetorical literacies such as cultivating a grassroots ethos to meet the expectations of diverse audiences and to invoke audiences with her own expectations of what grassroots cartography and community activism can look like. By organizing and learning from people within and across cultures through and about technological means in order to make grassroots maps, then Hagit demonstrates how literacy practices create and shape infrastructures of civic rhetorics.

3.2 Will

Though Hagit is the only participant who named infrastructure specifically, I also noted that Will alluded to the importance of infrastructure at moments throughout our interview. For example, Will said:

I do help organize OpenGeoCleveland, and the reason for that is because I really haven't found any place locally where I would be able to share different maps that I made, or how do I install this mapping program? or I found this
cool map online… when I started OpenGeoCleveland, I didn't want people to go through the same barriers or things that I had to go through, because I really just had Twitter, I ended up finding about CartoTalk, but the rest of it I just had to go at it alone. With MapTime we actually share tutorials, so there's a central repository of different tutorials that people have written, so we can actually even share curriculum, so that's really awesome and helpful.

In this quote, Will speaks to an infrastructure he helped create. Because of his desire to learn more about maps and mapping technologies, he wanted to create a local community where an exchange of knowledge could take place. Will sought other people interested in knowledge work who could teach each other literacies needed to create maps. Along with other people, their collective resources, and their literate abilities, Will and other community members came together. Though not everyone who is a part of OpenGeoCleveland or MapTime’s Cleveland chapter are making grassroots maps, this infrastructural work is still representative of how literacy practices inform civic rhetorics. This is because rhetorical, composing, intercommunal, and technological literacies are all needed to come together in these infrastructures.

For example, Will must cultivate an *ethos* of computer and cartographic knowledge so people will attend and share their knowledge at the OpeneCleveland and MapTime meetings. Will must be aware of his audience’s expectations at these meetings and he must engage with intercommunal literacy practices as he works with those who help run and attend the meetings. Furthermore, in meetings like the one I attended, Will demonstrates his multimodal composing processes when presenting how to make maps using specific digital tools. As he demonstrates and talks about these processes, Will also practices technological literacy
practices: he communicates about technology while utilizing technological skills and tools during his presentation. Without engaging in these four broad types of literacy practices, Will would not be able to enact the infrastructure he has created. These literacy practices create a network of activity through the labor of people within cultural, political, and material—that is, rhetorical—contexts.

3.3 Aaron

Like Will, Aaron did not speak to the idea of infrastructure directly. However, he did speak to the idea of a historical, political, and cultural infrastructure of systematic and government-sponsored racism when he contextualized for me how he views his maps fitting within national acts of Native cultural preservation. In our interview, Aaron said:

Unfortunately, so much Indian history has been lost because it was intentionally lost systematically by the U. S. government. Then even that was taken on as a project by tribes themselves. Just individuals didn’t teach their kids their languages anymore. They felt that it would just inhibit them in society and things like that. It’s nice to see that it’s turned around. Our government now supports Native languages and passes laws supporting use of Native languages and funds all kinds of cultural things. This all is happening in a time where there is still time to save a lot of information.

The infrastructure of government-sponsored cultural and material destruction trickled down so that even tribal members did not always take measures to preserve aspects of their cultures. However, Aaron notes there has been a shift: infrastructures at multiple and intersecting levels (tribal, familial, educational, federal, and more) are changing so that languages—among “all kinds of cultural things—can be practiced legally and with broader social emphasis. As part of these infrastructures, Aaron makes Tribal Nation Maps to
document part of Native culture and histories. To make these maps he engages with multiple literacy practices. He cultivates an ethos that accounts for intersecting identities, knowledge, and messages. Aaron works with people from many different cultures with many and often contradictory expectations. Additionally, Aaron works with different technologies, including lo-tech and digital machines, to compose maps and to communicate with others, such as tribal members and graphic designers. The composing process for the Tribal Nations Maps is multimodal and iterative. These literacy practices inform civic rhetoric infrastructures: the infrastructure surrounding Aaron and his maps specifically and then civic infrastructures of tribal cultural centers, schools, and other regional and national conversations about Native lives and histories.

3.4 Hassan

When reviewing my interviews with Hassan, it is clear that he and Jennida have together created an infrastructure to do creative and critical work. S/N is an infrastructure of creative collaboration where various literacy practices are enacted. Hassan and Jennida are literate in quite a few technological practices, including knowing how to operate different digital tools related to film and web-based applications, and in communicating about these technological skills and practices with each other, with other tech-savvy audiences who help them with technologies they are unfamiliar with, and with other audiences who are perhaps less tech-savvy. Hassan works from an intersectional cultural identity to cultivate an ethos as an artist and a grassroots ethos. He also works with and across cultures, including inter-generational, artistic, and locally-situated cultures to compose in dynamic and embodied ways. These literacy practices are the activities that inform the network from which Hassan and Jennida create.
4. Conclusion

“Community networks of any kind,” Grabill writes, “are social, political, and technical; they get work done and allow others to work…” (Writing Community Change 40). A civic rhetorics infrastructure is an example of community networks that are rhetorically situated productive spaces comprised of pluralistic literacy practices. Though not exhaustive, the rhetorical, composing, intercommunal, and technological literacy practices my participants engage with create infrastructures where community work gets done. The people, practices, resources, and other material and cultural components of these infrastructures attempt to do work that echo Richard Selfe’s idea of the “sustainable communities of practitioners” (168). The sustainability of these communities is rooted in a theory and practice where grassroots cartographers are attentive to community members past, present, and future. For example, Hassan said about the “Richmond Reclamation Project” “…you leave kind of an audio time capsule of sorts, where all of a sudden, at some point in time, someone stumbles upon this spot, and they hear something, and they hear a story about what happened on this spot” (Personal interview). This idea speaks to a desire to link people through space and time, to highlight the importance of place as tied to identities and cultures, and to emphasize the idea that community can be practiced in different ways and can change, hopefully for the better.

The idea of grassroots cartography pivots on the idea of creating community change. Will captures this idea quite nicely when he said:

Really I would say, the ability to create a map I think can be empowering…because I think it's a tool for not just artistry but also if you want to get a point across of whether it's politically, like a proposed freeway's going to go through … streets, which I think is going to damage my neighborhood and you could see here how, to
just an understanding of how I see the world through what you choose to display and not display on a map. A map is such a unique way to do that… (Personal interview)

This quote speaks to the grassroots possibilities of maps. Cartography can be empowering, maps can make arguments and be utilized for civic change. Grassroots maps acknowledge the terministic screens of all rhetors and their rhetorical actions and texts. Finally, as Will says, maps are a special and particular ways to do this type of work.

In the fifth and final chapter, I address the final research question about pedagogical implications stemming from what I learned from my participants. To begin, I develop a set of civic learning objectives with a multimodal emphasis for the composition classroom. These objectives are based on the literacy practices of grassroots cartographers and based on the learning objectives and learning outcomes of the two writing professors I interviewed, Ashley Holmes and Kurtyka Kurtyka. The civic learning objectives I developed are also informed by feminist pedagogical praxes. Finally, the civic learning objectives are positioned against the 21st Century Literacies and Multimodal Literacies Position Statements issued by National Council of Teachers of English. Chapter 5 also includes thoughts on future research and ends with concluding thoughts about the project as a whole.
1. Introduction

“Residents I have worked with mapped and visualized geo-spatial information for advocacy, this affordable and easy to use piece of hardware enabled them to take a step into the materiality of the technological process, into the politics of representation, revealing the biases of the map, the stories it tells and doesn’t tell. People and matters of concern become the focal point of the map, maps and mapping become a site of encounter between, people, places, issues and technological process.”

-Hagit Keysar, “A Matter of Scale - Civil Architecture and Open Hardware”

Hagit notes in the epigraph above that geographic maps and community mapping projects are rich “sites of encounter.” This quote illustrates the rhetorical imperative of maps, the implications of civic rhetorics when mapping, and indicates literacy practices inherent in grassroots cartography. As I have explored throughout the dissertation, grassroots maps are powerful spatial representations of locations that tell stories of marginalized communities through community members’ terministic screens. Mapping is a material process that relies, in part, on rhetorical, composing, intercommunal, and technological literacy practices that in turn shape infrastructures of civic rhetorics. Grassroots cartography relies on these practices and the infrastructures they inform to bring about change for “matters of concern” that impact those who engage with grassroots mapping. These matters of concern represent intersectional feminist issues, namely how narratives (or discourse) and material realities of people—including embodied experiences related to land, labor, and “identity and its relationship to

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18 A meridian arc is the measurement of distance between points of the same longitude. Besides being a geography term and pretty sounding, the term is used here to symbolize connections between the practices of grassroots cartographers, writing professors, and feminist pedagogies that inform the learning objectives in this chapter.
power” (Crenshaw)—affect marginalized people. The sites of encounter Hagit names are the infrastructures where people do mapping and enact other civic rhetorical work for change.

Composition classrooms are also sites of encounter where many writing instructors teach literacy practices with a civic focus (see, for example, Deans, *Writing and Community Action*; Green; Welch, “And Now That I Know Them;” Leon and Sura; Holmes, “Pedagogy…;” Stenberg and Whealy; *Reflections Journal*). Part of my impetus for writing this research project was to connect work done in grassroots mapping communities and in the academy by investigating how composition instructors teach geographic maps, civic rhetorics, and related literacy practices. To address my final research question, I sought specifically to explore how to create a civic pedagogy for the composition classroom based on the literacy practices of grassroots cartographers. However, as I conducted my research I found that developing a set of learning objectives would be a more flexible manner in which to address my final research question. These civic learning objectives can provide scaffolding for a composition course that is entirely focused on the civic, or the objectives can inform composition courses with other foci. These objectives can also be adopted and adapted by writing instructors who wish to respond to the *kairotic* moments in which they find themselves teaching composition.

To develop the civic learning objectives presented in this chapter, I draw on findings from my participants in Chapters 3 and 4. The grassroots cartographers provided rich literacy practices and civic rhetorics that demonstrate how to accomplish community-based work and I attempt to transfer these contextualized skills to the composition classroom. When developing the objectives, I also looked to the writing professor participants I interviewed. Faith Kurtyka and Ashley Holmes provide detailed thoughts and examples of how to teach important literacy
skills through assignments that center on geographic maps and civic rhetorics. From the findings from all six my participants, I developed learning objectives that support a civic (or other) pedagogy and that also attends to the 21st Century Literacies and the Multimodal Literacies Position Statements issued by the National Council of Teachers of English. However, these learning objectives go beyond the literacies listed in the position statements as the objectives also address additional literacy skills derived from what I learned from my participants.

Before outlining the learning objectives that sketch out a civic pedagogy for the composition classroom, I briefly describe Kurtyka and Holmes’ mapping projects so that their data is contextualized throughout the rest of the chapter. After presenting the learning objectives, I present possibilities for future research that stems from fruitful but unexplored territory in this research project. Finally, I offer concluding thoughts of what I have learned and was able to accomplish through the process of composing this dissertation.

2. Interlude: Writing Professors and Their Geographic Mapping Projects

Kurtyka and Holmes know each other from completing their doctoral work together at the University of Arizona. I initially contacted Kurtyka, whom I had met at the U of A in 2009, through Twitter when I saw her tweeting about a mapping project she had her students complete. After agreeing to be interviewed, Kurtyka directed me to Holmes. It was from Holmes that Kurtyka had gotten the idea about the Google Maps assignment, though Kurtyka’s purposes, objectives, and student outcomes for the project differ at times from Holmes’s. This is due to the pedagogical and otherwise rhetorical contexts for each professor. Kurtyka teaches her mapping assignment in a first-year writing course in a living-learning community at a small Jesuit Catholic school “focused on social justice” (Kurtyka, Personal Interview) in
Omaha, Nebraska. Students at this school have strong educational backgrounds, are primarily from out of state, and tend to stick to the campus. Holmes, on the other hand, is currently teaching her mapping project in an upper-division digital writing and publishing course at a large state university in Atlanta, Georgia with many non-traditional students who move around and occupy different parts of the city.

For Kurtyka’s assignment, students work collaborative to create a multimodal project that makes an argument about space; that is, the students develop arguments about what kind of argument a space they explored makes. Kurtyka begins the unit by taking students to a neighborhood in Omaha and together they explore and photograph the neighborhood and post the photos to Twitter. After discussing the photos as a class back in the classroom, the students join groups of three and pick their own space to explore. A caveat Kurtyka employs is that they can’t return to spaces that students in previous classes have gone to. On their visit, students must speak to someone, record something this person said about the space, and take photographs of the space. Using Google docs, students collaboratively compose an essay about the argument of the space. They then upload their photos and the essay to a pin they drop on Google Maps. A screen shot (see figure 18) shows a list of some of the different places Kurtyka’s students have chosen to visit, photograph, and write about in Omaha. This Google map also serves as an archive that Kurtyka’s current and future students will look at for rhetorical models of the assignment. An example of a completed project of a specific space with photographs, a blurb, and a link to a Google doc adjacent to the Google map can be seen in figure 19.
Holmes’s assignment also focuses on public arguments of space, albeit she has students choose multiple spaces that inform an argument about a local issue. The assignment is also specifically about creating a digital multimodal composition using the New London Group’s five modes as a guide. The New London Group, as a group of scholars interested in
multimodal literacies and pedagogies, identified written-linguistic, visual, audio, gestural, and spatial modes as key to a multimodal pedagogy (“A Pedagogy of Multiliteracies”). On her assignment sheet, Holmes writes, “Mapping is increasingly important to what we mean by “digital writing and publishing.” Thus, we will use the spatial mode and the medium of mapping to ground your multimodal project and give you experience with the technology behind Google Maps. You will drop pins at your locations and then create content that will display or be linked from those pins” (see Appendix D). She expects students to have multiple multimodal pieces, including some work that is not their own, but requires that one image of a place is taken by the students and one form of written or spoken text is composed by the students. On the assignment sheet, Holmes reminds students of where to find information of how to cite sources on a digital text and, unlike, Kurtyka, she explicitly has her students think about the rhetorical nature of maps. An example of the Google map showing the spaces Holmes’s students have composed about can be seen in figure 20.

Fig. 20 “Atlanta’s Sites of Public Argument,” Ashley Holmes’ ENG 3120.

Both Holmes and Kurtyka’s assignments are strong examples of how mapping, diverse literacy practices, and civic rhetorics can be taught together in a composition
classroom. As will be become clear, the idea of community engagement is an important consideration that both writing professors want their students to engage with and practice. Data that I gathered from my interviews with these participants, plus supplemental materials (such as the Google maps in figures 18, 19, and 20; course blogs, see figures 21 and 22 for examples of blog pages with the mapping assignments listed; and Holmes’s assignment sheet in Appendix D), inform the learning objectives below. This data is incorporated along with data gathered from the grassroots cartographers I interviewed, rhetoric and writing scholarship, scholarship about feminist pedagogies, and the literacy position statements issued by the National Council of Teachers of English. Combined, this data and scholarship create flexible and dynamic civic learning objectives with a multimodal emphasis for the composition classroom.

Fig 21 “Digital Writing & Publishing (Spring 2016),” Ashley Holmes’ ENG 3120.
3. Mapping a Path for Teaching: Civic Learning Objectives for the Composition Classroom

Through the process of researching and writing this project, I found that the civic learning objectives I was developing mirrored some of the core tenants of feminist pedagogical praxes, praxes that I deeply admire and engage with as a teacher. Therefore, in addition to the data from participants and rhetoric and composition scholars, I also utilize feminist pedagogical praxes to inform the civic learning objectives below. I make this move not only to enrich the learning objectives, but also to continue the thread of feminist research, theory, and praxis that I endeavored to integrate throughout the research and writing of the dissertation. Furthermore, this inclusion of feminist pedagogical scholarship is meant to situate my stance as a feminist teacher alongside and overlapping my feminist stance as a scholar. It is also to suggest a genealogy of pedagogy and how a set of civic learning objectives is part of a constellation of interrelated yet distinctive teaching
practices\textsuperscript{19}, namely liberatory (Friere, hooks), critical (Giroux, Shor), engaged (hooks), and feminist (hooks and rhet/comp scholars including Royster and Kirsch and Siebler).

The following learning objectives are meant to synthesize best practices of teaching and learning for composition teachers interested in focusing on ideas of community, including civic rhetorics and literacy practices that support skills and concepts students can apply in and beyond composition classrooms. I drew on Stuart Selber’s concept of multiliteracies when developing these objectives, meaning that some objectives demonstrate a combination of utilization (functional literacy), questioning (critical literacy), and production (rhetorical literacy). Furthermore, there is a multimodal emphasis to these learning objectives as informed by the multimodal practices of all of my participants and the exigencies of multimodal composition skills as demonstrated by the Multimodal Literacy Position Statement issued by the National Council of Teachers of English and rhetoric and composition (and literacy) scholars like the New London Group, Cynthia L. Selfe and Pamela Takayoshi, Jason Palmeri, and Jonathan Alexander and Jacqueline Rhodes. Though grassroots cartography projects are not necessary learning outcomes to meet these objectives, they do provide dynamic opportunities for students to engage with different literacies to enact grassroots principles and practices within a civic framework. These learning objectives are meant to be included in different types of undergraduate composition courses, including digital writing, cultural rhetorics, or any writing course with a service-learning component.

- Learning Objective: To think about what literacy practices are and how they operate in various communities; to rhetorically practice different literacies in different communities

\textsuperscript{19} The concepts of a genealogy of pedagogy and a constellation of praxes are influenced by Andrea Riley-Mukavetz, the Cultural Rhetorics Theory Lab, and Angela Haas.
The NCTE Position Statement on 21st Century Literacies asserts “that a literate person possess a wide range of abilities and competencies, many literacies. These literacies are multiple, dynamic, and malleable. As in the past, they are inextricably linked with particular histories, life possibilities, and social trajectories of individuals and groups.” Understanding what literacy means, what literacy practices are (including practices beyond alphabetic reading and writing), and what impact being literate can have on a person’s life are important lessons to make explicit in composition classrooms. It is important to teach students that literacy is “not only fluency with discourse but an ability to think critically about them and use them to explore possibilities of agency” and that being literate is participating “in a complex society” by telling stories about our lives (Alexander 7). This idea of agency is important because not only does it suggest empowerment, it also suggests a responsibility beyond oneself to others. Those who have agency, who have fluency with discourse and the ability to think critically have an advantage and thus, according to feminist and grassroots principles, they have an obligation to use this advantage to empower others. Furthermore, the critical thinking inherent in Jonathan Alexander’s definition of literacy allows students to analyze the components of various communities to know how to craft stories that can make an impact in, with, and for those communities.

However, and depending on the level of students in a composition course, it is also valuable to teach the evolving rhetorical context and history of literacy. For example, while in its more recent history literacy has been thought of as “an entitlement of citizenship,” it is increasingly understood as a commodity with inherent risks to this commoditization (Brandt, 310 “At Last: Losing Literacy”). Similar to what Sara Ahmed argues in *Queer Phenomenology*, practices of citizenship and commoditization move communities closer and
farther away from loci of power. Therefore, teaching students how literacy is impacted by and impacts such factors of power can increase students’ abilities to apply literacy as a method for personal enrichment and community change, as well as to understand how literacy and the factors around it can fail at these endeavors.

The critical nature of literacy also appears in feminist pedagogies, such as when Gail Hawisher writes that feminist pedagogies “Seek to elicit in students a critical awareness of that which was once invisible—to provoke in students through reading, thinking, writing, and talk a sense of agency, a sense of possibility” (xvii). By engaging in numerous literacy activities in the composition classroom, students become more critically aware and more critically productive. The critical nature of literacy can be noted in the digital multimodal mapping activity Holmes assigns her students. When talking about this assignment, Holmes said, “Part of the literacy development that's really important for this assignment is helping them (students) see that maps can make arguments, that maps are rhetorical, even if they are presenting facts… I think some basic map literacy, some critical literacy around maps, is one important thing that we do” (Personal interview). As Holmes notes, in order to make the multimodal maps she assigns, students must be critically literate. However, her students also have to be functionally literate with different digital technologies and they must be rhetorically literate in order to produce different and inter-linking digital compositions for the multimodal requirement of the assignment.

In both Holmes and Kurtyka’s courses, students move in and across academic and non-academic communities and use different literacies to create maps. The grassroots cartographers also use different literacy practices to make community maps and participants like Hagit also understand the critical nature of literacy and its rhetorical context. In our
Also what I mentioned before about the sharing practices that Public Lab promotes through the wiki and the research notes, all the online sharing process and also developing critical perspective on these kinds of images, on aerial images and free practices, not only through theory but really understanding that all of these processes are... It's handmade, it's human manipulation. There is nothing objective about these kinds of artifacts. And learning how to look critically, how to read critically these kinds of exclusive technologies through the use of DIY practices.

The literacy practices described here—digital, philosophical (open source), writing (research notes), reading—are part of a critical literacy that all work together. Hagit suggests that to be able to do grassroots mapping a person has to understand the bias in seemingly objective images, how to access and share information through digital means, and how to go through different technological processes. Similar to Holmes and her students, Hagit wants her community participants to understand the subjective nature of maps. However, Hagit seems to suggest her participants are also learning how literacy practices, tools of literacy, and contexts of literacy interact. This multi-layered approach to literacy makes for a robust learning objective in the composition classroom, especially when goals of civic engagement are at stake.

- **Learning Objective:** To become proficient in technological and especially digital modes of composition; to consider the rhetorical decisions and implications of technological and digital compositions

In the NCTE 21st Century Literacies Position Statement, one objective is to “Develop proficiency and fluency with the tools of technology.” Technology is an important literacy
practice for grassroots cartographers as they must be skilled in using different technological tools to create grassroots maps for civic purposes. In other words, this literacy practice is a type of knowledge work using different forms of technological skills to analyze and solve a variety of problems. The four grassroots cartographers I interviewed use a variety of technological tools, especially Hagit, who very explicitly uses non-digital tools like weather balloons and kites. However, digital technology is the primary mode for the grassroots participants’ and the composition students’ map-making. The learning objective I developed about technology is broadly centered on technology but focuses on digital composing due to findings from my research and due to the proliferation of scholarship on digital composing by scholars in the field of rhetoric and composition.

For example, Danielle Nicole DeVoss, Elyse Eidman-Assda, and Troy Hicks also write about technology broadly and digital technology specifically when they argue, “For teachers, it is…a matter of uncovering the most powerful uses of technology to accomplish learning goals for specific students. To do this, they can create digital environments and experiences to extend their most effective practices into even more powerful learning opportunities for students” (29). These authors argue for composition instructors to teach technology in rhetorically savvy ways. That is, they do not believe technology should be practiced as a panacea in education. Rather, specific technologies should be selected and then taught to meet specific learning outcomes and objectives. Students who learn to become proficient or fluent with technological tools will be able to then model the rhetorical knowledge of their teachers to use specific technologies for particular rhetorical situations, including situations for community change. The students, in short, will be practiced knowledge workers better prepared to use technology to address complex problems.
Technology literacy is important for feminist teachers and scholars in rhetoric and composition as well. Cyberfeminists Kristine Blair, Katherine Fredlund, Kerri Hauman, Em Hurford, Stacy Kastner, and Alison Witte, for example, write about the underrepresentation of women and people of color in technology fields. Furthermore, these scholars argue, “The value of working with and for the community permits university educators to learn from their community and to use their theoretical and pedagogical scholarship to benefit their communities, a form of cyberfeminist activism.” This connection between technology, teaching, and activism is a nice connection to the civic rhetorics of grassroots cartographers who use multiple technologies with marginalized communities for community change. It also nicely connects to the technological, civic, and rhetorical goals of compositions professors Holmes and Kurtyka.

In my interviews with them, both Holmes and Kurtyka frequently mentioned the technological and digital aspects of their civic mapping assignments. When Kurtyka discussed the learning outcomes of the composition program she is a part of, she said, “Then we also have…a technology requirement just so students need to choose among various aspects of technology, so just to get them familiar with Google maps and Google Docs… You know, it’s not like super complicated technology, but again, something a little bit more exciting than just typing a paper in Microsoft Word” (Personal Interview). Kurtyka implied that her students did not know how to use Google Maps as a form of rhetorical literacy; that is, her students did not know how to make maps using Google Maps, though it is implied they knew how to use Google Maps as consumers for navigational purposes. Furthermore, she told me she was surprised at how many students did not know how to use Google Docs. The use of Google Docs not only meets the technology learning outcome of the course, but also the collaborative
outcome as students compose an essay together using this platform. Furthermore, the collaborative nature of Google Docs—where students have to use technology to communicate about technology and other course themes—also speaks to the technological communication literacy practice my grassroots cartographers enact.

When we spoke about her mapping project, Holmes said, “The practice with technology is kind of part of the learning goals in the course, in that students should walk away with a bit of facility on how to use web publishing tools. I think Google Mapping is, it's a form of web publishing.” Holmes also talked about how she walks students through the productive possibilities of Google Maps, thus moving students from functional and critical literate practices to rhetorical ones. She also spoke about how students had to learn about and utilize other online platforms like Flickr, Tumblr, and YouTube to host their various multimodal content to then be linked to the Google Map they created. Holmes said, “We talk about how to make it visually engaging, how to make it interactive, and clickable; how to link to good sites.” As she teaches this unit, Holmes teaches some technologies explicitly, but she also has students learn about technology individually and collaboratively, or from her but not in a whole-class centered way. Holmes, Kurtyka, and the grassroots cartographers teach their students and community partners how technology is part of rhetorical situations and, depending on the circumstances of that situation, different technological practices will be needed.

- **Learning Objective:** To be able to analyze and create multimodal compositions and to understand the rhetorical contexts and implications of such compositions

The grassroots cartographers I interviewed engage with multimodal literacies when creating grassroots maps. Whether it is alphabetic text combined with visual images, to a more
layered multimodal piece like the visual and aural components of Hassan’s “Richmond Reclamation Project,” multimodality features prominently in the grassroots mapping projects of my participants. Multimodality also fosters opportunities for more integrated community involvement to meet civic objectives of marginalized communities. For example, Hagit wrote about how she had her participants write and draw on the image of the maps so that their voices could be better represented (Where Do the Maps Go?”). In addition, the film in Hassan’s project features both the image and the literal voices of his participants. Because multimodality encompasses many different skills and senses, multimodal literacies allow marginalized community rhetors to engage in more ways in the mapping process. Additionally, the multimodal nature of grassroots maps creates more compelling and more accessible entry points for wider audiences to respond to and interact with grassroots maps and the communities that produce them.

Multimodality also features prominently in the teaching of English, and rhetoric, writing, and literacy specifically. David M. Sheridan, Jim Ridolfo, and Anthony J. Michel and Cynthia L. Selfe, for example, have books dedicated to multimodal pedagogy. Furthermore, the NCTE’s Multimodal Literacies Position Statement states: “The use of different modes of expression in student work should be integrated into the overall literacy goals of the curriculum and appropriate for time and resources invested” and the 21st Century Literacies Position Statement includes the mandate “Create, critique, analyze, and evaluate multimedia texts.” These components of the position statements indicate that multimodal literacy practices are necessary in the composition classroom and that these practices operate as functional, critical, and rhetorical literacies. To underscore these points, feminist rhetoric and composition scholars like Royster and Kirsch and Meredith Graupner, Lee Nickoson-Massey, and Kristine
Blair argue for the necessity of teaching multimodal literacies. Royster and Kirsch, for example, write that new media in the field is “…to be more innovative in shaping pedagogical theories and developing classroom activities capable of engaging contemporary students thoughtfully and responsibly” (67).

Like these feminist scholars, Holmes and Kurtyka teach multimodality in thoughtful and responsible ways. Holmes said, “They (her students) have to create a Google Map and then manipulate it, adding content to dropped pins for sites that would represent that multimodality. So they get a visual component, or they upload a video, and that's like an audio-visual component where they have a paragraphic description for a linguistic component, but it's all grounded into spatial mode through the map.” Kurtyka’s students also take photographs and write alphabetic texts to attach to heir Google Maps (which, with its alphabetic text and visual icons, is already a multimodal composition). Furthermore, Holmes and Kurtyka have their students work collaboratively on these multimodal assignments. Kurtyka’s students work in groups and Holmes’s students have studio days where they provide peer feedback for each other. The collaborative nature of the multimodal work is not only reflected in the NCTE’s Multimodal Literacies Position Statement20, it is also reflected in the multimodal community work the grassroots cartographers practice and this reinforces the collaborative imperative and multimodal nature of civic learning, teaching, and work in and outside the composition classroom.

- **Learning Objective:** To understand learning as an embodied experience and to practice rhetorically situated embodied knowledge-making

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20 “Because of the complexity of multimodal projects and the different levels of skill and sensitivity each individual brings to their execution, such projects often demand high levels of collaboration and teamwork.”
The NCTE does not include embodied experience as a literacy practice in either of its position statements. However, embodied learning is important to grassroots cartographers and their community partners, to feminist scholars, and to rhetoric and composition scholars and teachers. As is noted in texts like Debra Hawee’s book *Bodily Arts: Rhetoric and Athletics in Ancient Greece*, embodied learning goes as far back to Ancient Greece in recorded Western histories of rhetoric. Cultural rhetorics scholars like Malea Powell, Daisy Levy, Andrea Riley-Mukavetz, Marilee Brooks-Gillies, Maria Novotny, and Jennifer Fisch-Ferguson who compose the Cultural Rhetorics Theory Lab write about embodied learning in non-Western and Western rhetorical traditions. More recent examples of embodied pedagogy can be found in the work of Daisy Levy’s dissertation “This Book Called My Body: An Embodied Rhetoric, Cynthia L. Selfe’s article “The Movement of Air, the Breath of Meaning…,” and in the work of Steph Cesaro who develops a multimodal listening pedagogy because “it is necessary to address the affective, embodied, lived experience of multimodality in more explicit ways” (104).

Feminist scholars also discuss the embodied nature of teaching and learning. For instance, Royster and Kirsch write, “We call for greater attention to lived, embodied experience because we consider it to be a powerful yet often-neglected source of insight, inspiration, and passion” (22). In *Teaching to Transgress*, bell hooks writes about eros, the body, and teaching, and in “Refiguring Rhetorica: Linking Feminist Rhetoric and Disability Studies,” Jay Dolmage and Cynthia Lewiecki-Wilson write about embodied learning and the senses. In particular, Dolmage and Lewiecki-Wilson argue that feminist rhetorical methods and pedagogy should be informed by disability studies; these two authors write, for example, that classroom activities should not privilege sight as the primary embodied mode of
learning.

The grassroots cartographers I interviewed also alluded to the embodied nature of learning, especially the composing process. Hassan, for example, spoke of the “run-around” in his composing processes and Hagit wrote about her participants standing next to the maps they made to provide literal voices of the map-makers to their maps. Holmes and Kurtyka, too, alluded to the embodied aspect of their students’ learning. The embodied learning objective is part of a set of civic learning objectives because the material lives of all communities, especially marginalized communities, must be learned and expressed through embodied experience. Kurtyka related ideas of space and the material (embodiment) to community:

To me it’s sort of an exercise in self-awareness, like how do I exist in this space? I also think that they’re quite good at it. I think they do it intuitively a lot, but I don’t think that they … that it’s made explicit. To me, it is a strength-based way of having them do analysis that feels very practical, and Creighton as a Jesuit institution really emphasizes experiential learning. For me, it’s a way that they’re not just trapped reading a book or reading an article or something like that. Just sort of get them out of the world. That’s what I like about spatial analysis is it feels like you really are somewhere. It locates you. It puts you somewhere. (Personal interview)

Though reading is also embodied, it is important to Kurtyka that her students step out in the world, to move their bodies through different spaces, to learn differently than how they are frequently expected to learn in college. It is also important to Holmes for her students to learn in new spaces, which suggests an embodied literacy:

I've been kind of playing with that a little bit more, prompting students to think
about not just mapping as a digital activity that's very removed from a physical place, but getting them out into the community into material places and experiencing those; and then having them reflect on what it means to represent that, digitally. And how do you get the tone of a place? How do you represent that place in the same way? (Holmes, Personal interview)

This embodied learning, where students have to physically occupy a space in their local community, complements grassroots mapping not only because of its civic nature, but also because the students are using their bodies to learn as a means to represent this space. Like feminist rhetoric and composition scholars argue, to engage all of the senses of the body is “a powerful…source of insight, inspiration, and passion” to learn and to compose in and across different communities.

- **Learning Objective: To be able to practice spatial analysis especially in regards to how space affects power and people**

  This is another objective that the NCTE does not address. However, the idea of space—and its corollary, place—is a critical learning objective in a civically-focused classroom. Feminist scholars highlight the importance of space due to its relationship to power. For example, feminist cultural geographers Doreen Massey and Gillian Rose write about time-space theory that looks at the everyday spaces of women and other marginalized people to study how these spaces and people are situated in relation to power. Sara Ahmed’s queer phenomenology theory looks at how bodies are situated in space in relation to power and how bodies are queered depending on their position to this power. Rhetoric and composition scholars also study space and power. For example, Nan Johnson argues that rhetorical spaces “reflect the ways a culture has defined where significant cultural conversations take place”
(175) and Lorraine Code writes about rhetorical space (especially regarding gender issues) as a circumstance where “acting and knowing” takes place (5). The connections between people, power, and space (and place such as scholars like Roxanne Mountford illustrate) complement the other civic learning objectives listed in this chapter. Because people and communities occupy different everyday spaces that centralize or marginalize them in relation to power, a learning objective about spatial analysis will increase students’ awareness of this dynamic. Being aware of this dynamic allows students to question it (again, a critical literacy practice) and will ideally allow students to contribute how communities can occupy different spaces or occupy their spaces differently in order to access important resources of power.

As noted in the scholarship of Amy Propen, Nedra Reynolds, and Diehl et al., space is a critical component to cartography, but it did not feature prominently in the interviews with grassroots cartographers. Ideas of space were suggested in my interview with Hagit who spoke about her educational background studying urban spaces of Jerusalem (a conceptual occupation she continues today). Additionally, at the end of our interview, Hassan said, “I'm interested in maps and I'm interested in geography and being able to either define or redefine space and social navigation as well as imagination…” This fabulous quote speaks to the objective of grassroots cartographers and other community advocates, and to Royster and Kirsch’s concept of critical imagination. Grassroots mapping and other community projects provide opportunities for participants to imagine and act on alternative realities by attempting to change, in part, the spaces the community participants occupy.

It is important to teach students about how space operates for communities, and it is important to teach them about the opportunities that reside in space and practices of spatial analysis. Though Holmes’s mapping assignment is a digital multimodal assignment stemming
from the New London Groups’ five modes, space is the primary mode the mapping assignment is grounded in. Holmes told me, “But I still want them to engage local places in a meaningful way, and to kind of take their academic hat, some of the skills we were talking about in class, and to kind of every day spaces.” For Kurtyka, spatial analysis is the primary literacy practice of the mapping assignment she gives her students. She said, “It also strikes me as a really practical skill to be aware of how your space affects, to be aware of how you’re situated in space, even something like being able to walk into a room and be like who’s sitting where? What does that mean about the space that I’m in?” Both professors want students to think about how spaces can make an argument. They also connect space to the idea of the civic as they require students to go out into their communities to learn about issues that arise from these civic spaces. Being able to understand how space operates in relation to communities, power, and composing thus makes for an important literacy and learning objective for a set of civic learning objectives.

- **Learning Objective:** To think critically of intersectional issues such as civic engagement, culture, collaboration, and literacy, and to practice and develop behaviors related to these concepts

This is a culminating learning objective that ties together the other learning objectives of this set of objectives. The NCTE’s 21st Century Literacies names three objectives that are related to the learning objective above. They are:

- Build intentional cross-cultural connections and relationships with others so to pose and solve problems collaboratively and strengthen independent thought;
- Design and share information for global communities to meet a variety of purposes;
- Attend to the ethical responsibilities required by these complex environments.
The grassroots cartographers I interviewed engaged with literacy practices similar to the NCTE objectives above. Through intercommunal literacies that are attentive to cultural awareness and cultural humility, my participants are able to work in and across multicultural communities in order to “solve problems collaboratively.” Using local knowledge and an awareness of global contexts, the cartographers also “Design and share information for global communities.” Aaron, for example, creates maps of tribes throughout the Americas, and Hagit facilitates between the global context and infrastructure of Public Lab to the local infrastructures she has created in Jerusalem and other parts of Israel. Finally, my participants cultivate a grassroots ethos that, in part, means they operate within a compassionate and critical framework to “take care,” as Hassan said, of their community partners, their stories, and their civic goals and purposes.

Feminist scholars also attend to intersectional practices. Royster and Kirsch’s concept globalizing the point of view is one such example. They write, “We are witnessing now a continuous process of worldwide decolonization and a remaking of paradigms and frameworks in support of all manner of sociocultural imperatives, including knowledge making” (112). This act of decolonization is a primary goal for grassroots cartography and other projects for community change. While being attuned to the sociocultural nature of rhetorical contexts, grassroots cartographers and other community advocates can attempt to change how knowledge is made and acted upon.

Feminist pedagogies in the composition classroom are also attuned to ideas raised by the NCTE and Royster and Kirsch. In “Feminist Pedagogies,” Laura R. Micciche outlines common approaches to teaching with a feminist praxis, and specifically she looks at feminist pedagogies in the writing classroom. Micciche writes, “Feminist pedagogies connect local,
personal experience to larger contexts of world-making...Within Writing Studies, activist pedagogical functions are linked to writing and literacy practices broadly conceived, making clear there is no bracketing the world from the classroom” (129). The local experience and “contexts of world- making” that Micciche writes about echoes the grassroots cartographers navigation between local and global communities and infrastructures. Furthermore, like the grassroots ethos the grassroots cartographers cultivate, Krista Ratcliffe addresses of the ethical responsibility a teacher has in developing tactics to listen to and act upon this listening for her students (76). In order to demonstrate how to ethically work in and across differences, it is important for a composition instructor to develop an ethos that is responsive to her students just as Ratcliffe and the grassroots cartographers write about and demonstrate.

It is also important for a writing instructor to lead students through explorations of self at intersections of identity and cultural contexts, and to look outward from the self to make connections to and take action with people in local and global communities. These actions allow for learning, teaching, and change in communities in and outside the academy.

When speaking with Holmes and Kurtyka, it was clear to me, though I did not observe them teaching, that they cultivate an ethos that is based on a wealth of knowledge about rhetoric and composition but that also acts responsibly towards students. This was made clear in how Holmes and Kurtyka spoke about their students and their pedagogies, and it also emerged as I read through their supplemental materials like blogs (figures 21 and 22) and Holmes’s multimodal mapping assignment sheet (Appendix D). This modeling of a grassroots-like ethos is important for students to see when engaging with various communities. For example, it is important for students to understand their relationship to others, such as when Kurtyka said:
I think part of it is taking a kind of responsibility for community, like venturing out, seeing different things, going to places you might not normally go… so part of it is just that being a citizen is about getting out and exploring your community… Part of that too is like I want them to know that knowledge isn’t something that you look up on Wikipedia. If you want to know about a place, you actually have to go talk to a person there and ask them about how they use the space too. To me, that’s part of being a good citizen too is like getting to know people, talking to people, like what their use of the public space is.

In this quote, Kurtyka summarizes the purposes of an intersectional learning objective that ties together ideas of collaboration, community, literacy, and culture. Having students develop an ethos that allows them to analyze and act upon this intersectionality in various communities is the key component of a set of civic learning objectives in a composition classroom. This is because these civic learning objectives replicate, to a degree, the infrastructures found in grassroots mapping projects and in other communities engaging with civic rhetorics.

4. Future Studies

Two areas of study to explore in future research projects are the visual and spatial practices in and across academic and non-academic map-making communities. Though grassroots cartographer participants alluded to visual and spatial literacy practices in our conversations, these data examples were not prolific enough for me to develop sections devoted to such practices. However, the writing professors I interviewed spoke at greater length about spatial and visual components to the mapping assignments they teach. Kurtyka spoke particularly about spatial learning objectives and objectives for her mapping
assignment while Holmes spoke more about visual practices as part of the multimodal focus of her mapping assignment. Attention to spatial and visual components of mapping already exist in rhetoric and composition scholarship, most notably by Amy Propen, Nedra Reynolds, and Diehl et al. However, a future research project would build on the work begun in this dissertation to look at the comparisons of visual and spatial literacies carried out in grassroots cartography and composition mapping projects. Such a research project could result in additional learning objectives for the civically focused composition classroom.

Another opportunity for future research is to study the emotional nature of grassroots mapping and other civic rhetorical work. Feminist scholars such as Halleh Ghorashi and Alison M. Jaggar and feminist rhetoric and composition scholars such as Jacqueline Jones Royster (“A View from a Bridge”) and Patricia Bizzell (“Feminist Methods of Research) write about the emotional nature of research while bell hooks (Teaching to Transgress) and Nancy Welch (Getting Restless) write about the emotional nature of teaching. There were moments when my grassroots cartographer participants alluded to the emotional nature of their work. Hagit and Will, for example, mentioned the excitement they have experienced or they have observed their mapping partners experiencing when working on grassroots maps. Hassan said his work was fun and Aaron noted pride as a factor in his mapping work. These participants thus allude to the emotional experience of making maps with and for people. Bizzell highlights Royster’s “passionate attachment” to her research subjects while Royster writes about the ethical responsibility she has to her participants, with emotion serving as a conduit for this practice. When Hassan spoke about caring for his participants and their stories, and Hagit questions the inherent hierarchical nature of community projects that attempt to make knowledge production horizontal, then examples of passionate attachment
and ethical responsibility emerge. In future projects that further investigate grassroots cartography and civic rhetorics, emotion as a feminist research method and a literacy practice could be explored more fully.

Furthermore, the emotional nature of civic learning objectives could be explored further. Feminist pedagogy is a site of emotion: hooks, for examples, writes about emotions and eros that occur between teacher and student in “Eros, Eroticism, and the Pedagogical Process” and Nancy Welch writes about the “…unstable range of emotions—trust, joy, doubt, resentment, hostility, love—that construct the relationship among teacher, student, and text (Getting Restless 36). Both Welch and hooks write about the range of these emotions, and Welch in particular addresses the power and relationships of authority that emerge from these emotions at times. Kurtyka said her students enjoy looking at their peers’ maps; she also suggested a discomfort her students sometimes feel in her requirement to get them off campus and into the surrounding community. (This discomfort is important because tension, or conflict, appears as part of feminist pedagogy in work by Kay Siebler and Susan C. Jarratt). Holmes briefly mentioned both the interest and the frustration her students experienced with the mapping project she assigns. These references of emotion that my participants allude to, especially contextualized within feminist pedagogical and methodological scholarship, suggest possibilities for future research on grassroots literacy practices and civic rhetorics, particularly in and beyond the composition classroom.

5. Concluding Thoughts

In our interview, Kurtyka said that when she sends her students out into Omaha for the mapping project she wants her students to consider “Who lives here? What kind of people live here? How might I fit in here? What can I do for this community? I think that's a really
important literacy…it’s also a kind of civic literacy.” These questions, I believe, not only
ground students in a civically focused composition classroom, but they also are questions
grassroots cartographers and other community advocates consider when they do civic
rhetorical work. Throughout my dissertation, I have explored the exigencies and literacy
practices of grassroots cartographers who make maps with marginalized communities as a
means to enact change. These practices inform infrastructures of civic rhetorics where people,
resources, and activities interact in order to transform the oppressive narratives and material
realities of communities underrepresented in public discourses and multiple spaces.

In addition to exploring the civic rhetorical work and the literacy practices—in short,
the labor—of grassroots cartographers, I sought to make connections between different
communities. Namely, I wanted to see how civic learning objectives for the composition
classroom could be developed based on the literacy practices and civic rhetorics of my
participants, both the grassroots cartographers and the composition professors I interviewed.
By situating my participants’ thoughts and experiences within rhetoric and composition
scholarship, feminist pedagogical praxes, and the literacy position statements of the National
Council of Teachers of English, I was able to develop learning objectives that attend to ideas
of literacy, technology, multimodality, space, embodied learning, and intersectional concepts
of community, culture, and collaboration.

Finally, an underlying objective for this dissertation—an objective not reflected in the
research questions—was to create a feminist research project that enacted feminist goals
through theory building and research practices. These goals stem from Sandra Harding’s
feminist standpoint theory where I aimed to work with participants who—at different
intersections of their identities—are marginalized and who also partner with marginalized
communities. By providing space in these pages to hear these participants, I also sought to expand who, what, and how we know in rhetoric and composition (Addison 136). Ultimately, I attempted to triangulate my methodologies and methods to my theoretical framework and to the content of my research so that feminist and grassroots principles and practices guided and strengthened the research process and product as a whole.

Working with my participants was an incredibly rewarding process. I learned a tremendous amount about maps and mapping, civic rhetorics, literacy practices, knowledge work, and teaching from my participants. From my participants, I was able to approach my research questions on firm footing and I was also lead to new and deeper considerations of the interactions between people’s skills, goals, daily realities and resources, and how these all are situated and affected by infrastructures of power. It is my privilege to be able to share what I learned from Hagit Keysar, Hassan Pitts, Will Skora, Aaron Carapella, Ashley Holmes, and Faith Kurtyka with any audience of this research project. I hope the knowledge I was able to create from all of my scholarly relations will contribute to conversations in and beyond the field of rhetoric and composition.
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APPENDIX A. HUMAN SUBJECT REVIEW BOARD DOCUMENTS

DATE: August 20, 2014

TO: April Conway, PhD
FROM: Bowling Green State University Human Subjects Review Board

PROJECT TITLE: [512840-3] Practitioners of Earth: Cultural Practices, Literacies, and Narratives of Cartographers and Their Maps

SUBMISSION TYPE: Revision

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: August 15, 2014

REVIEW CATEGORY: Exemption category # 2

Thank you for your submission of Revision materials for this project. The Bowling Green State University Human Subjects Review Board has determined this project is exempt from IRB review according to federal regulations AND that the proposed research has met the principles outlined in the Belmont Report. You may now begin the research activities.

Note that an amendment may not be made to exempt research because of the possibility that proposed changes may change the research in such a way that it is no longer meets the criteria for exemption. A new application must be submitted and reviewed prior to modifying the research activity, unless the researcher believes that the change must be made to prevent harm to participants. In these cases, the Office of Research Compliance must be notified as soon as practicable.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Kristin Hagemyer at 419-372-7716 or khagemy@bgsu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Bowling Green State University Human Subjects Review Board's records.
DATE: March 5, 2015

TO: April Conway, PhD
FROM: Bowling Green State University Human Subjects Review Board

SUBMISSION TYPE: Amendment/Modification

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: March 5, 2015

Thank you for your submission of Amendment/Modification materials for this project. The proposed changes will not change the exempt status of your project. You can begin this work.

If you have any questions, please contact Hillary Snyder at 419-372-7716 or hmorgan@bgsu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Bowling Green State University Human Subjects Review Board's records.
APPENDIX A: INFORMED CONSENT LETTER FOR GRASSROOTS CARTOGRAPHERS

Dear Participant,

My name is April Conway, and I am a PhD student in Rhetoric and Writing at Bowling Green State University in Ohio where I am currently beginning work on my dissertation. I am completing this work under the guidance of my dissertation chair, Dr. Kristine Blair. In my dissertation I will explore the cultural and literacy practices of grassroots and academic communities who make geographic maps. In particular, I am interested in seeing how and why communities make geographic maps as a way of understanding different rhetorical, composing, and community-building practices. In order to create a research project that will be more layered and in-depth, I am asking for your input on this topic via your agreement to participate in an electronic interview.

Purposes and Benefits

In this research project I am looking forward to exploring how geographic maps play a role in different contexts, including daily navigational purposes, artistic expressions, and artifacts of governmental power and control. As an amateur map-maker and as a rhetoric and composition scholar and teacher, I am especially interested to see how the cultural practices of cartography affect composing processes which require a complex knowledge of cultural, visual, and material rhetorics, as well as collaborative composing practices and a diverse understanding of literacies. Within the field of rhetoric and writing, teacher-scholars are researching and teaching rhetoric and composition practices that involve multiple technologies, skills of critical and rhetorical analysis, and composition production across a range of genres. Therefore, I believe this project will have much to offer the field, though I am also interested in finding ways it might benefit your community, if you think there might be any interest in this possibility.

Again, as a composition teacher I believe a study of the types of composing practices that go on outside a college classroom will be extremely beneficial to me and others who study and teach composition and rhetoric. I especially hope that this research will be useful to the mapping communities I work with, and I happy to share my research progress as well as the final dissertation with you. However, there are no monetary awards offered for your participation in this project.

Procedure and Nature of the Project

Your participation in this project is completely voluntary, and your decision to participate will not affect your relationship with Bowling Green State University. You may decide to skip questions or discontinue with your participation at anytime. There are no foreseeable risks associated with this project.

If you choose to participate, I will ask you to complete an interview over the phone, or via Skype or through an email, whichever you prefer. The interview should take approximately one hour. If you consent, I may contact you for a follow-up interview for clarification. Furthermore, I will provide you with transcripts from our interview as well as give you access to my research blog where we can correspond about work in progress. I am the only person who will have access to your answers, and I will save these answers in a password-protected digital folder. While I clearly know your identity, you
may choose a pseudonym by which you wish to be identified, and I will take all measures to ensure that any reference to your answers in any subsequent presentations or publications would be traceable to you unless you give me explicit permission to reveal your identity. Because you may complete an interview via email, I want to remind you 1) you may want to complete the interview on a personal computer as some employers may use tracking software; and 2) you should not leave the interview and your answers open if using a public computers or a computer others may have access to.

If you have any questions or concerns, please do not hesitate to contact me at aconway@bgsu.edu or 419-372-8047. Additionally, you are welcome to contact the faculty member supervising this research project, Kristine Blair at kblair@bgsu.edu or 419-372-7543. You may also contact the chair of the Bowling Green State University Human Subjects Review Board at 419-372-7716 or hsrb@bgsu.edu if you have any questions about your rights as a participant in this research.

I would like to thank you in advance for considering my research and I hope that you share my interest in how the cultural practices of map-making affect community-building and composing practices in and outside the classroom.

Sincerely,
April Conway

I have been informed of the purposes, procedures, risks and benefits of this study. I have had the opportunity to have all my questions answered and I have been informed that my participation is completely voluntary. I agree to participate in this research.

(electronic signature)

Please indicate how you would prefer to be interviewed:
☐ Phone interview
☐ If via phone, please include your phone number: _____________________________
☐ Skype interview
☐ If Skype phone, please include your Skype user name: _________________________
☐ Electronic interview via email
☐ If via email, please include your email address: ______________________________

Please indicate how you would like to be identified in any resulting publications/presentations:
☐ By name
☐ By the following pseudonym: ____________________________________________
☐ I would not like to be identified by name
☐ Other (specify) ________________________________________________________

Please indicate how you would like me to use your words in any resulting publications/presentations:
☐ Feel free to quote my responses
☐ Feel free to refer to my ideas generally but do not quote me directly
☐ Other (specify) ________________________________________________________
Dear Participant,

My name is April Conway, and I am a PhD candidate in Rhetoric and Writing at Bowling Green State University in Ohio where I am currently working on my dissertation. I am completing this work under the guidance of my dissertation chair, Dr. Kristine Blair. In my dissertation I will explore the composing and literacy practices of grassroots and academic communities who make and teach geographic maps. In particular, I am interested in seeing how and why individuals make geographic maps as a way of understanding different rhetorical, composing, and civic practices. In order to create a research project that will be more layered and in-depth, I am asking for your input on this topic via your agreement to participate in an electronic interview.

**Purposes and Benefits**

In this research project I am looking forward to exploring how geographic maps play a role in different contexts, including colonial practices, community projects, and artistic expressions. As a rhetoric and composition scholar and teacher, I am especially interested in seeing how rhetorical contexts of cartography affect composing processes which require an understanding of cultural, visual, and civic rhetorics, as well as collaborative composing practices and a diverse understanding of literacies. Within the field of rhetoric and writing, teacher-scholars are researching and teaching rhetoric and composition practices that involve multiple technologies, skills of critical and rhetorical analysis, and composition production across a range of genres, including geographic maps. With my focus on composing and literacy practices, as well as civic rhetorics, surrounding the reading and production of geographic maps, I believe this project will have much to offer the field.

I am happy to share my research progress with you, as well as the final draft of the dissertation. To be clear, there are no monetary awards offered for your participation in this project.

**Procedure and Nature of the Project**

Your participation in this project is completely voluntary, and your decision to participate will not affect your relationship with Bowling Green State University. You may decide to skip questions or discontinue with your participation at anytime. There are no foreseeable risks associated with this project.

If you choose to participate, I will ask you to complete an interview over the phone, or via Skype or through an email, whichever you prefer. The interview should take approximately one hour. If you consent, I may contact you for a follow-up interview for clarification. Furthermore, I will provide you with transcripts from our interview as well as give you access to my research blog where we can correspond about work in progress. This blog is a private, password-protected blog, and can only be accessed through my invitation. I am the only person who will have access to your answers, and I will save these answers in a password-protected digital folder. While I clearly know your identity, you may choose a pseudonym by which you wish to be identified, and I will take all measures to ensure that any reference to your answers in any subsequent presentations or publications would be traceable to you unless you give me explicit permission to reveal your identity. Because you may complete an interview via email, I want to remind you 1) you may want to complete the interview on a personal computer as some employers may use tracking software; and 2) you should not leave the interview and your answers open if using a public computers or a computer...
others may have access to. I may also ask to see course materials related to any lessons regarding geographic maps and, with your written permission, may ask to include some of these materials in my dissertation.

If you have any questions or concerns, please do not hesitate to contact me at aoconway@bgsu.edu or 419-372-8047. Additionally, you are welcome to contact the faculty member supervising this research project, Kristine Blair at kblair@bgsu.edu or 419-372-8033. You may also contact the chair of the Bowling Green State University Human Subjects Review Board at 419-372-7716 or hserb@bgsu.edu if you have any questions about your rights as a participant in this research.

I would like to thank you in advance for considering my research and I hope that you share my interest in how the cultural practices of map-making affect community-building and composing practices in and outside the classroom.

Sincerely,

April Conway

I have been informed of the purposes, procedures, risks and benefits of this study. I have had the opportunity to have all my questions answered and I have been informed that my participation is completely voluntary. I agree to participate in this research.

(electronic signature)

Please indicate how you would prefer to be interviewed:
☐ Phone interview
☐ If via phone, please include your phone number:
☐ Skype interview
☐ If Skype phone, please include your Skype user name:
☐ Electronic interview via email
☐ If via email, please include your email address:

Please indicate how you would like to be identified in any resulting publications/presentations:
☐ By name
☐ By the following pseudonym:
☐ I would not like to be identified by name
☐ Other (specify)

Please indicate if you grant me permission to publish any course materials you share with me in the dissertation:
☐ No
☐ Yes
☐ Other (such as excerpts of specific materials). Please specify:
APPENDIX B. INTERVIEW QUESTIONS FOR GRASSROOTS CARTOGRAPHERS

Interview script: The purpose of this interview is to learn from you, a map-maker, how and why you make geographic maps for community purposes. The information I gather from this interview will provide me with data for my dissertation, a research project that looks at the composing and literacy practices of cartographers. The hope is that my dissertation will benefit writing teachers and students by having them consider different ways to compose, to work collaboratively, and to consider and practice different types of literacies.

Note: When I write literacy, I mean that literacy demonstrates the ability to engage in particular practices along a spectrum of ability—from functional to fluent—in order to access and produce knowledge in meaningful ways.

When I write composing I mean composing practices could be defined as complex processes involving multiple modes. (So certainly there is overlap of literacy and composing practices.)

1. How do you describe the maps you make?
2. Why do you make maps?
3. How do you make maps?
   1. What are the materials used?
   2. What are the composing process(es)?
   3. What are the skills/literacies needed (I can also identify these literacies based on your other answers, e.g. digital literacy):
4. If applicable, how does/do community(ies) affect your map making? How would you describe this/these influential community(ies)?:

5. How do cultural influences affect your map making? How would you describe these cultural influences?
APPENDIX C. INTERVIEW QUESTIONS FOR WRITING INSTRUCTORS

**Interview script:** The purpose of this interview is to learn from you, a writing instructor in higher education who teaches geographic maps, about your reasons for and methods of teaching map making practices. The information I gather from this interview will provide me with data for my dissertation, a research project that looks at the composing and literacy practices of cartographers. The hope is that my dissertation will benefit writing teachers and students by having them consider different ways to compose, to work collaboratively, and to consider and practice different types of literacies.

Note: When I write *literacy*, I mean that literacy demonstrates the ability to engage in particular practices along a spectrum of ability—from functional to fluent—in order to access and produce knowledge in meaningful ways.

When I write *composing* I mean composing practices could be defined as complex processes involving multiple modes. (So certainly there is overlap of *literacy* and *composing practices.*

**Pedagogical Exigencies and Praxis**

1. Why do you teach geographic maps in your writing classroom?
2. How do you teach geographic maps in your writing classroom:
   a. What assignment(s) include(s) geographic maps?
   b. What purposes do these assignments have in relation to learning outcomes of the course?
   c. What background information, if any, about rhetorical aspects of geographic maps are included in the corresponding geographic map lessons?
   d. What materials (software, hardware, etc.) are students asked to use to make geographic maps? Why these materials?
   e. What materials would you like students to use, if the resources were available?
   f. Are students asked to “read,” or rhetorically analyze, geographic maps in your class? If so, how is this analytical process taught?
   g. How would you describe the composing process of students making maps in your writing classroom?
   h. If civic rhetorics can be understood as the meaning-making work everyday individuals and communities engage with in order to make their communities stronger, are civic rhetorics part of the reason for teaching geographic maps in your writing classroom? (Alternatively, I would be interested in hearing your own definition of civic rhetorics, if you have one.)
   i. If civic rhetorics are part of the teaching of maps in your classroom, how do you incorporate civic rhetorics as part of the related lessons?
   j. Are there any additional composing practices you’d like to share regarding geographic lessons/assignments in your writing classroom?
   k. Are there any additional literacy practices you’d like to share regarding geographic lessons/assignments in your writing classroom?

3. What challenges did you observe your students encounter as they worked on this mapping related assignment?
4. What insights did you observe your students make as they worked on this mapping related assignment?

5. How do you understand map-making as a rhetorical act if we consider rhetoric to be how meaning is made in a particular genre and situation, with a particular audience and purpose?

Thank you for your time for this interview. After the transcription of this interview is completed, I will share the transcript with you. I may ask for expansion or clarification in an additional email, or a brief phone or Skype interview. Please contact me if you have any questions or concerns.
APPENDIX D. ASHLEY HOLMES’ DIGITAL MAPPING MULTIMODAL ASSIGNMENT

Digital Mapping Multimodal Project

Percentage of Grade: 25%
Draft Due for Peer Review: Tuesday, February 17th
Final Draft Due: Friday, February 20th by midnight (via D2L Dropbox)

For this assignment, you will do the following:

- Select a local public issue,
- Choose a series of (approximately 3 to 5) local public (or counter-public) locations you will visit, observe, and publish writing about “on location” via mobile technologies, and
- Compose a multimodal text in the form of a digital map published on Google maps that rhetorically represents your findings and stance as an argument for social change.

Public Locations / Public Arguments

Choosing your locations may help you define your issue, or vice versa—you might decide on your issue and then think about which locations would allow you to explore and exemplify your issue best. Be strategic in choosing your locations—think about how individually or together they will help you communicate your message. Ideally you would choose a series of three locations that are related in some way, whether it’s three examples of the same genre (e.g., three walls with graffiti) or whether the locations when combined work together to support your argument (e.g., a soup kitchen, a homeless shelter, and a public health center). Below are a few ideas to get you thinking, but this list is certainly not exhaustive nor is it meant to limit your ideas.

- Subversive spaces that may be off the “beaten path,” unmapped, or unknown
- Art installations, murals, public street art, graffiti (legal or illegal)
- Parks or green spaces
- Political locations, protests, or rallies
- Community or non-profit organizations, social justice issues
- Public transportation
- Public events, readings, or vigils

This assignment is purposefully open-ended and meant to challenge you to think outside the box, so be creative and push the boundaries. You could choose locations that are part of your everyday life or ones that are unfamiliar to you. Keep in mind that you will need to be able to visit your locations. You could successfully complete this project, though, without leaving the bounds of GSU’s campus, so don’t feel like you must choose locations that are far away or that cost money.

Multimodality

Mapping is increasingly important to what we mean by “digital writing and publishing.” Thus, we will use the spatial mode and the medium of mapping to ground your multimodal project and give you experience with the technology behind Google Maps.
Digital Mapping Multimodal Project

You will drop pins at your locations and then create content that will display or be linked from those pins.

In addition to the spatial mode, your multimodal project should combine at least two other of the modes identified by the New London Group: linguistic, visual, aural, and/or gestural. The digital, multimodal components of this project will help you communicate your argument, and you will have flexibility with what you ultimately produce. However, your multimodal content must include the following:

- At least one image (still picture or moving video) of each of your locations that has been taken by you, and
- Some form of written or spoken text composed by you.

In other words, while you may splice together already existing content (with attribution by citing your sources!), I do expect you to create some new content yourself as well.

Purpose & Audience

Remember that your ultimate purpose is to create a multimodal text (a map) that makes an argument. This means you will want to use your multimodal text as a digitized space that complements, complicates, or extends the physical, public places.

You will identify your target audience for this project, though I expect your audience will likely be somewhat local in focus given the requirement of a local public issue and local public locations. However, because your maps will be public and searchable by anyone on the World Wide Web, you should keep in mind the possibility of a broader public audience, and I encourage you to share your final maps with friends and family, peers and teachers.

Citing Sources

Revisit chapter 4 of Writer/Designer for reminders about permissions and citations for sources. You must give credit to any content that you did not entirely create yourself; that means if you use a clip from a song that's not yours or use an image or photo you didn't take/create, you need to cite it. If you quote from an article, you need to cite that as well. There is no requirement for you to incorporate outside research, but, you may find that outside references are necessary to support your claims and present yourself as a credible authority. Because you are not writing in an academic genre, you do not have to use MLA or APA citation style. Instead, use the guidelines in chapter 4: 1) provide enough information so readers can find the source themselves, and 2) use a citation style that is credible within the context of the genre you’ve chosen to produce. This might mean using endnotes or footnotes, including a list of citations at the end or on a separate page of your multimodal text, and/or providing hyperlinks to sources.

Digital Publishing & Submission

You will make your Google map public, and you will submit the link through D2L. All multimodal components of your project must be live, online, and linked from your Google map by the due date.