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Landscapes of Inequality: Creative Approaches to Engaged Research

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By

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Abstract

Landscapes of Inequality: Creative Approaches to Engaged Research

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In this dissertation, I claim that collaborative research produces better data, interpretations, and ethical outcomes. I argue for an expanded toolkit of representational practices in anthropological archaeology. To do so, I compare how archaeological knowledge is created and becomes involved in contemporary land-use practices through two community-based research projects. The first, the Albany Bulb Archaeology Project (ABA), documented self-built homes at an Albany, CA public park after eviction in 2014. The second, the ongoing Berkeley-Abiquiú Collaborative Archaeology Project (BACA), surveyed and interpreted the historic *acequia* irrigation ditches that traverse the 18th century land grant community of El Pueblo de Abiquiú in northern New Mexico. Both projects investigate landscapes of inequality: spatial-temporal materialities forged by the phenomena of colonialism and capitalism in the last 400 years.

The landfill-turned-public-park known as the Albany Bulb is a landscape privileging use by an upper-middle class "public" over the home-making and care practices performed by people experiencing homelessness. Through an analysis of city documents and archaeological documentation, I deconstruct how urban development values a construction of "nature" over the realities of industrial history and contemporary homelessness. Creative interventions such as maps and photographs have emerged in response to the re- or even de-contextualization of this place as an "art park." The presentation of these archaeological/artistic maps and photographs in an art gallery subsequently provides an opportunity to reflect on the effects of archaeological work on this contemporary issue.

El Pueblo de Abiquiú is a *Genízaro* Indio-Hispano community created by colonial Spanish practices of indentured servitude and relocation. Abiquiú's story begins with colonial violence, displacement, and disenfranchisement. It continues to the present day, where movements for federal recognition and the adjudication of water rights pit Abiquiúceño resource and heritage management against the capitalistic mechanisms of the surrounding state and federal governments. I evaluate the impact of collaborative archaeological research on heritage revitalization and water rights with the Pueblo's Genízaro residents. Using the concept of hydrosociality, I interpret the complex inter-relationship between people and water, governance and infra-structure, and past and present that make up acequias and their archaeological representations.

Building on the ethics of anthropological archaeological research and experimentation with art as a method for archaeological story-telling, I posit that socially engaged archaeology must use diverse strategies to not only communicate its narratives, but create them. This includes cultivating collaborative practices for research development, execution, and interpretation, as

well as community-centered definitions of "success" and "meaning." Different contexts present opportunities to change the terms of knowledge production and to achieve a critical "praxis" as proposed by calls for engaged research.

Dedication

To Ward who keeps teaching me how to notice things.
To my two families who keep me afloat.

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Acknowledgements

Albany Bulb

Susan Moffat brought me to the bulb in 2014 and introduced me to Amber Whitson. Amber encouraged me not to let its history of homes die without a fight. To Mama-bear, Pat and Carrie, Jimbow, Chet, Boxer Bob, Mad Marc, and all the other residents of the Bulb: many of you I only know through stories and belongings, but I think of you everyday. I know this does not change the reality of living outside, but I hope it extends the reach of your stories. Thanks also to Osha Neuman who represented them in court and challenged me to think about the role of research in real life.

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El Pueblo de Abiquiú

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Chapter 1: Orientations

This dissertation is a portfolio comprised of two engaged, interdisciplinary, and ongoing research projects. The first project used the detailed attention of archaeological recording to document recently dismantled homes on the Albany Bulb, a former landfill and subsequent home to dozens of people nominally experiencing homelessness until evictions in 2014. Homes on "the Bulb" capitalized on the richness of its human-made "bedrock," itself the materials of past buildings: rebar, brick, concrete, stone. Shortly after the city of Albany evicted all residents in 2014, I consulted with former residents to document the material traces of their part in this unique landscape. The city of Albany needed to normalize the park by removing its residents, but this erasure ignores the deep connections to place and home-making that people living on the Bulb experienced. As the leader of the Albany Bulb Archaeology (ABA) project, I made collaborative maps and images that challenge the relationship between archaeological authority, public space, and the right to be remembered in the context of homeless disenfranchisement. By using the exacting detail of archaeological recording, our visual representations of "landfill-ian" home sites challenge the stereotypes and institutional devaluation of people living outside (a term I use where other researchers would say un-housed, or homeless). The ABA Project was initiated to produce material for an exhibition at SOMArts Gallery in San Francisco, CA. This exhibition was to be in dialogue with the art of former residents, as well as art about them and the Albany Bulb, and produced a series of screen-printed, tactile maps and interpretive panels discussing the ideas and issues of an archaeology of the contemporary. My post-archaeological-survey engagements with the Bulb continued for four years and included an image database, an experimental pedagogy class called, "Siteworks: Understanding Place through Design and Performance," and a collaborative performance-installation with archaeologists Ruth Tringham exploring the value of "rubble" and home.

The second project is part of the long-term Berkeley-Abiquiú Collaborative Archaeology project (BACA) that was initiated by members of the Abiquiú land grant community in what is now northern New Mexico to investigate, revitalize, and ensure continued authority over their Genízaro heritage. Genízaro was a term used by Spanish colonial administrators as part of the racial/ethnic *sistema de casta* to identify people of indigenous origin who had been captured or sold into indentured servitude in Spanish households. Together with community partners in Abiquiú, I investigated historic *acequia* irrigation technology on the communally held lands of the Pueblo. Hand dug and communally maintained acequias have significance for understanding past Genízaro lifeways, contributing to contemporary Genízaro heritage revitalization, and future water rights cases. Fieldwork included survey and test excavations with nine Abiquiú high school interns. Concurrent with my collaborative work with Abiquiúceños, I was a resident at the Santa Fe Art Institute with a group of artists and researchers focused on water rights. The residency inspired a hand-made magazine (or "zine") made by the high-school interns of the BACA Project, with production assistance by myself and artist, Brea Weinreb. While collaborating on the 2017 season of archaeological fieldwork surveying Eel Pueblo de Abiquiú's historic acequia irrigation ditches, the interns were in a singular position to bring their own knowledge of family histories and the high desert landscape together with archaeological skills. The zine illustrates this integration of knowledge through collaged images of the interns at work over Georgia O'Keeffe's landscape paintings of the area, written reflections, and descriptions of

archaeological keywords. It represents an important part of the archaeological research by framing the methods for data collection within the interns' personal experiences and providing an opportunity for young Abiquiúseños to tell the story in their own words.

With these two projects I engage the political stakes and power dynamics of knowledge production in anthropological archaeological research, placing them in conversation with other similarly motivated projects. I have come to call this orientation "engaged research." Engaged research, as I have come to understand it, includes a range of other labels including: public, community-engaged, community-initiated, post-colonial, Indigenous, community-based participatory (CBPR), and activist archaeology. The variety under this umbrella is wide and the result of responses to different theoretical critiques and ethical commitments. Fundamentally, however, each provides insight into the contextual responsiveness and methodological flexibility I believe is necessary for research to make a meaningful contribution to both society and academia.

Engaged research in general, and community-based or -initiated research specifically, produces *better* research. It produces more ethical and rigorously inclusive research questions, data collection, and interpretation. Through collaboration, the outcomes of engaged research are made epistemically strong, tested by people with varied perspectives, and ethically sound, orientated to research goals beyond academia. No two landscapes of inequality, community of impact, or engaged methodology will be the same. In the cases of both the Archaeology of the Albany Bulb Project (ABA) and the Berkeley-Abiquiú Collaborative Archaeology Project (BACA), unique orientations, understandings, and practices have made collaboration possible and, as a result, made engaged research fundamentally more vital and epistemologically strong.

I present these two projects as part of a holistic practice of politically motivated, socially-engaged research using the methods of anthropology, in particular archaeology and ethnography, alongside art. I use both projects to argue for an expanded conception of the purpose and activities of engaged research in archaeology. Within each project, I analyze material pertaining to the active production of history in landscapes of inequality, reflect on research activities as practices of presence-ing these histories, and explore the possibility that inter-disciplinary methods and combinations can achieve the goals of an engaged, activist archaeology.

Both the Archaeology of the Albany Bulb and the Berkeley-Abiquiú Archaeology Projects emerged out of the intersection of real socio-political stakes for people with strong ties to particular places and my own personal goals as a researcher. This intersection is the foundation of a question I explore in this dissertation: How do the methods of research change when research begins with political stakes? At the same time, how should methods of research change when research is so specifically motivated? Intention matters in the development of methodology. Rather than attempt to prove this monolithic statement, however, I use the ABA and BACA Projects as case studies for investigating *how* this might be true. In the chapters that follow, I explore how different contexts present opportunities for changing the terms of knowledge production and achieving "praxis" as proposed by calls for engaged research.

These projects demonstrate both the successes and failures of very different approaches to engaged research in very different environments, and so become opportunities for me to test the boundaries of an engaged approach. Engaged research can take many forms, but can always create vital opportunities for knowledge production that is meaningful to community members, scholars, and activists. I claim creative practice is *essential* to the execution of this kind of research. Since collaboration relies on a pluralistic setting for knowledge production, the frame and media of research needs to be broad and responsive to the intricacies and nuances of context.

Sometimes a conventional map just will not do. By reflecting on the issues illuminated by critical discourse on social practice art, I draw a line from community-based research through creative practice to a novel framework called "research-creation" from arts-education (discussed in the conclusion).

Knowledge Production

I understand knowledge production from the position of feminist, queer, and indigenous theory (Smith 1999; Chen 2012; Nakata 2007; Sedgwick 1993; Wylie 2007). These theories underscore the positionality of knowledge and the power-laden dynamics of knowledge production. I am invested in both projects as experiments in the reflective creation of research knowledge and narratives through these lenses. I have undertaken both projects with an interest in shifting the dynamic of expertise to include a range of viewpoints and formats of knowledge.

At the Albany Bulb, for example, the concern of those who lived there was chiefly the misconceptions others have of who they are, why they live the way they do, and, on the most basic level, their humanity. In order to contribute meaningfully to this concern, data collection focused on the home-scale representations, while highlighting the similarities and differences of divergent living situations, in order to broaden resources for homeless activism. Similarly, the organization of research activities in Abiquiú foregrounded the manifold desires of members of the Genízaro community to undertake research for a number of reasons, including for instance the reinvestment of youth. Moreover, my focus on the acequias and historic water technology stemmed directly from the desire of the Abiquiú community to have power in water-rights adjudication with the state. This results in a collaborative approach that blends my personal interest and skills with the high-stakes knowledge production people in Abiquiú requested.

I am inspired by filmmaker and anthropologist, Trihn Minh-Ha's, philosophy of "speaking nearby" (Chen 1992). This approach focuses on methods that create narratives *with,* rather than speaking *for*, people whose histories and voices have largely been marginalized and silenced. In striving to speak with rather than for, I should acknowledge the analytical nearness and ethical precarity of speaking about and speaking for, as Latin-American philosopher Linda Alcott has described (Alcott 1991). The rejection of speaking *for* is common, especially among feminist, indigenous, and postcolonial scholars. Alcott summarizes this rejection by identifying that:

> "the practice of speaking for others is often born of a desire for mastery, to privilege oneself as the one who more correctly understands the truth about another's situation or as one who can champion a just cause and thus achieve glory and praise. And the effect of the practice of speaking for others is often, though not always, erasure and a inscription of sexual, national, and other kinds of hierarchies" (Alcoff 1991, np.)

Alcoff further argues that since speaking for is very often speaking about, this rejection must be extended to what might be considered by the speaker as "description." However, in order not to naively attempt to disempower all speech, what Alcoff offers is a solution that undergirds Minh-Ha's assertion to speak-nearby: to take into account the social location of the speaker *and* the effects of the speech. Alcott and Min-Hah taken together suggest that speaking nearby requires a recognition of social location and privilege vis-a-vi another person(s) who may or not also be speaking, as well as the effects of speech on that person(s).

In both of the cases I discuss in this dissertation I use methods explicitly motivated by my desire to speak alongside. This comes from my recognition of the ethical and political history of

anthropologists' misuse of authority and privilege, and reflexivity on my responsibility not only to "do no harm" but "do better." This dissertation is, in part a description of these methods, but it is a reflection on my positionality (as a non-member of the Albany Bulb and Abiquiú communities broadly defined, as a white person, as a woman, as a person with academic authority to speak, etc.) and the effect of my speech.

Speaking nearby is an ideal. At the Albany Bulb this was never fully realized, given the consultative nature of the research—but the openness provided by a variety of mapping and presentation forms gestured to the tension between telling a story and adding to one. With the acequia research at Abiquiú, the production of the zine among other artistic interventions was an attempt at a similar openness and integration of different forms of knowledge into the archaeological process.

Engaged Research

In the projects presented in this dissertation, I draw on strategies from these examples of archaeological research that are variously committed to engaging the desires or needs of contemporary people. My research responds to a disciplinary history in which theories of engagement arise as sites of intersection and divergence between various approaches. To orient my approach, I will outline my understanding of this mode of research, argue for broadening of the term to "engaged research," outline the values and activities I use in the Albany Bulb and Abiquiú case studies, and reflect on the goals of ethical archaeological praxis.

Theories of community engagement in archaeology are prompted by critiques of two varieties: external and internal (Atalay 2012). Alongside challenges to the discipline of anthropology as a field (Bhabha 1994; Clifford et al. 1986; Deloria 1969; Smith 1999; Spivak 1988), Indigenous and postcolonial critiques drawn from outside archaeology demanded the sub-discipline address the realities of its formation within a Western Enlightenment paradigm that both implicitly and explicitly has been used to bolster claims of colonial domination around the world (Echo Hawk and Zimmerman 2006, Gould 2010, 2011). These external critiques call for changes that put the goals and needs of non-archaeologist lives—especially those actively erased by white, upper-class research—first. On the other hand, critiques from within the discipline seek to improve archaeology as a discipline by developing its sensitivity and responsiveness to Indigenous communities, while recognizing the power of archaeological work and narratives in the contemporary world (Maldonado 2011; Geurds 2007; Hodder 1985; Silliman 2008; Watkins 2000). Most of these archaeologies do, of course, acknowledge that engaged archaeology will also benefit communities, but benefits to scholarly knowledge is an important component. In either the external or internal critique, the framing of engagement continues to nevertheless reify the separation of community and archaeologist, citing a cooperative but ultimately distinct relation to their particular needs from scholarship.

As I mentioned in the opening of this chapter there is a range of vocabulary used to define engaged approaches: in particular public, community-engaged, and community initiated. But how do we untangle these approaches? Is there even a value in doing so? Almost all of the introductions to representative volumes claim that there is no single monolithic Indigenous, postcolonial, emancipatory, or community archaeology, but rather many varied approaches defined by specific (often "local") contexts, needs, and priorities (Atalay 2012; Nicholas 2006). These are public, Indigenous, postcolonial, and/or community archaeolog*ies, with an emphasis on their often irreducible pluralism*.

Many projects labeled "public archaeology" emphasize improving the visibility of archaeological research and the image of archaeologists in communities, while also providing educational opportunities (Moser et al. 2002; Thomas et al. 2014). This approach aims to inform a broader public of the kinds of preservation and scholarly concerns identified by researchers, in order to recruit stewards for a conventional archaeological project. This is quite different than fundamentally changing the structure of archaeological research with the aim of addressing critiques of the discipline and the needs of pluralistic communities the community-engaged and community-initiated archaeologies take up. . Consultation under a public archaeology framework looks very different from consultation under an Indigenous archaeology framework. Intention, it becomes clear, is everything in this regard. A meeting with an Indigenous advisory committee only enacts a "decolonizing" of archaeology when real power is ceded and the formation of such a committee is open, representative, and culturally informed. These, originating from researcher or community, approach actively questions the existing values of the discipline (Davila 2019; Maldonado 2011; Atalay 2012, Rizvi 2008). The difference involves the degree to which archaeological methodology and research ideology itself is questioned, resulting in orientations that see conventional research in need of fundamental restructuring or in need of expansion, dissemination and education.

Much public, community-engaged, and community-initiated research does not necessarily aim to produce work (or ways of working) that fundamentally change the project or process of archaeological research. Even some Indigenous archaeologies do not fundamentally change the tools and language of archaeology, but rather mobilizes them by different people in new contexts. There is a distinction here, however, between these deductive attempts at engagement and postcolonial and more radical Indigenous archaeologies. These at least proclaim to fundamentally destabilize the assumptions about the kinds of knowledge archaeology produces and recognize the insularity of conventional archaeological research (La Salle 2010; La Salle and Hutchings 2015). In the projects presented in this dissertation, I draw on insights from both the internal and external critiques. In particular, I recognize of the power-ladenness of archaeological knowledge and research from postcolonial critique and the need for multiple forms of representation.

While there may not be a simple recipe or approach to readily reproduce the isolated and colonial structures of the academy, there is a growing toolkit that other engaged research projects have begun to flesh out (Atalay 2012; Habu et al. 2008). This toolkit is comprised of, but not limited to, practices like establishing a community mandate, consultation, interviews, "capacity building," co-construction of research design, elder and youth participation, marketing, tourist development, lesson plan development, and community-day events and workshops to name a few.

Importantly, the toolkit does not determine which methods are used in any given context, or how. You can, as analog, use the wrong end of a shovel to drive a nail or the ears of a hammer to dig a hole. It is value which guides the use of methodology, and not the other way around. Using a shovel to drive a nail is, under one methodology, the *wrong* way to use that tool, as you should have bought a hammer instead. But under another methodology, this use is just fine, even appropriate, as you use what you have around to do the job creatively. Put another way,

Ethics are a system of moral principles that guide behavior/action, and critiques both internal to archaeology and from indigenous and postcolonial theory make claims about the ethics they believe should structure archaeological research, constituting the ethical imperatives

for future archaeologies. Through the case studies presented in this dissertation, I claim that it is necessary for archaeologies to be executed in a way that:

1. acknowledges and actively attempts to heal past harm caused by the archaeological discipline to the communities in and on which it has worked;
2. avoids the possibility of future harm;
3. actively works against current, past, and future institutional inequality.

Uzma Rizvi (2010, 501) highlights collaboration as part of a "methodology informed by ethics [that] asks us to examine ourselves as practitioners in implementing the postcolonial critique." Opening up our research process to the critique of others can shed light on the extractive and potentially dominating practices of archaeological research. Sonya Atalay is careful to point out the "unique enterprise" of Indigenous archaeologies that share with collaborative archaeologies, "respect openness, multivocality, personal engagement, ethics, sharing of authority and interpretation, local and cultural knowledge, and the fact that history matters to people," while also maintaining a unique "intersection of colonialism, sovereignty, dispossession, and anthropology's tainted history with indigenous people"(Atalay 2012, 39; Silliman 2008, 3). Her understanding relies on a particular theoretical orientation and political impetus to democratize or decolonize knowledge production, along with a practical set of skills used contextually depending on the situation. With an emphasis on "braiding knowledge" (Atalay 2012) from both Indigenous/non-archaeological communities and Western scientific discourse, whilst challenging the structures of knowledge production that restrict access or rights. This theoretical orientation perpetually asks how archaeological research relates to society.

Philosopher of science, Allison Wylie (2015), identifies two conceptual forms within the use of collaboration in archaeology to date: syncretic and dynamic pluralisms. Pluralism refers to the view that there is more than one valid perspective on the past, central to conceptions of collaboration in the discipline. Syncretic pluralisms in archaeology are "tolerant but "non-interactive" (Wylie 2015, 195). Archaeologists operating under syncretic pluralism accept that other views and values exist, making space for a recognition of difference, without calling into question the epistemic position of fieldwork or "expert" archaeological narratives. Wylie calls this "consultative engagement" (Wylie 2015, 201). Dynamic pluralism, on the other hand, requires that archaeologists accept not only the presence, but the validity of other knowledge systems. This paradigm changes the terms and interest of archaeological research. Collaborations that grow from dynamic pluralism, as a consequence, are structured such that the interaction between groups significantly affects knowledge production, rather than merely leaving space for predetermined difference (Wylie 2015, 204). A much more dynamic and radical approach, I call this "collaborative engagement."

Wylie has also deftly argued why collaborative archaeology of a certain kind (that is, those that would fall under the category of "dynamic pluralism") creates a more epistemically sound research program. She claims that, "some of the most creative archaeological learning now taking place is in the context of collaborations that draw on the resources of a rich pluralism, and exemplify the best of what Helen Longino has described as transformative criticism (1990, 73–74); they can and do significantly improve archaeological practice empirically, conceptually, and methodologically"(Wylie 2015, 192).

How robust collaborations improve archaeology empirically relies on an understanding that non-archaeologists (in her argument, specific Indigenous collaborators) often occupy

standpoints that give them unique insight on knowledge production. Because knowledge is based on the social conditions of the person, non-archaeological or Indigenous collaborations, "may be uniquely situated to recognize and to counteract the kinds of group think and aligned failures of collective imagination by which our current best practices come to be canonized as embodying 'absolute' facts about what counts as justification that we have 'no option' but to embrace" (Wylie 2015, 207).

The argument further relies on a recognition that one goal of sound epistemic practice is to reduce error and bias by bringing to bear a range of perspectives on a question. With the situatedness of knowledge in mind, the ultimate outcome of robust collaboration is "transformative criticism," the hallmark of "good science" within a liberal democratic approach: "The wider the range of perspectives an individual or a community can bring to bear on a question, or in assessment of prospective knowledge claims, the more likely it is that error and bias will be exposed, that the full complexity of the subject and all relevant implications will be appreciated" (Wylie 2015, 205). Ultimately, "sustained interaction with descendant communities that goes beyond a respectful appreciation of difference can put archaeologists in a position to recognize just how purpose-specific, contingent, and tradition-bound are the epistemic goals and the methodological and epistemic norms that define what it is to do archaeological science" (Wylie 2015, 198). In this dissertation, I expand Wylie's essential insights to include other stakeholders and communities which have a vested interest and use for the outcomes of archaeological research.

The question, then, is what are the actual, lived, pragmatic activities that shift such a meeting from "check-the-box" engagement to a radical de-centering of research practice? This is an overarching area of exploration in this dissertation. Does a holistic practice of engagement ensure that research moves beyond outreach toward full collaboration? Is there a theory of engaged research that is rooted in collaboration but allows communities to "just say no" to research? In order to proceed with this question, I should clarify some terms.

Terms

The range of engaged approaches in archaeology share five key terms I want to define. These terms are community, collaboration, participation, benefit, and success.

Community

Community can mean many things. Dictionary definitions of the word emphasize either geographic or physical commonalities of people, or the feeling of belonging or closeness. Inherent in these definitions is the tension between self-identification and imposed, or circumstantial, identification. The term is a catchall, at times making it possible to strategically identify shared goals, and at others oversimplifying or hiding the complexities of social relations (Cohen 1985).

In the case of research, the intention of "community engagement" itself *produces* a community that would not exist otherwise. Indeed, it is the field of study, anthropology or archaeology, which becomes one of the possible (and perhaps defining) traits of the group of people related to such research. These relations can vary positively or negatively, with immediate or diffuse stakes in the work. Talk of "defining communities" in and of itself negotiates and even reifies a power dynamic that privileges me as the researcher. Thus, truly engaged research requires that one ask who gets to define community? Who initiated conversations about possible research? Who is willing or able to participate? And who arbitrates

the relative merits of such a research project? Atalay (2012) and Rizvi (2010) have pointed out the importance of continuously reassessing who is given power when we accept already existing systems of decision-making or power-sharing, as they are often skewed in favor of certain people along lines of race, class, and gender.

These dynamics must be actively addressed to avoid naturalizing a particular portion of a community as the singular community for whom archaeology matters (for the duration or the project or until the end of time). There are always many communities involved in engaged research. Engagement therefore requires first and foremost a contextual understanding of the possible communities with a relationship to archaeological research. Likewise, there may be many communities with a stake in research who are not actively part of keeping the project accountable. Meanwhile, collaborators, the makeup of communities, and the stakes they have necessarily change over time.

Randall McGuire writes that, "archaeologists can understand their relationship to the community only by knowing the histories that create the community as well as the community's present context" (McGuire 2008, 9). This is an important formula, but perhaps assumes too much already from a centralized perspective of the researcher. I would pose it differently, this time as a question: *Which* communities am I in relationship with and *why* am I in relationship with them? *Who* is left out—by choice, circumstance, or otherwise? The work required to answer these questions, to understand in some way "the histories that create the community as well as the community's present context," is often seen as implied, if it is valued at all, in both the final products of archaeological research and in archaeological training. Indeed, it is often given the pejorative label and subsequently minimal attention of "background research," a categorization which rather blatantly belies the power dynamics such research operates within. Joyce outlines a particularly provocative understanding of the relationship between the stakes which create archaeological "stakeholders" and the erasures archaeologists undertake to be considered stewards, and thus those without stakes (2002). Moreover, she complicates McGuire's argument by pointing out that the tensions between different kind of expertise and knowledge prompt a reformulation of the archaeologists position, rather than a correction of non-archaeological knowledge. This is an argument that reinforces the taking of responsibility for knowledge rather than a rejection of one kind of expertise for the other, the contextual understanding of what expertise produces and its limitations.

The process of meeting, listening to, interacting, and understanding living people should not be the assumed background for engaged archaeological projects; rather it should be the dynamic living context, regularly reassessed and made explicit in narrative accounts. In this dissertation, I use the word *community* to signal complexity, rather than to simplify difference. I use the word to identify groups of people (potentially including myself) with shared concerns or conditions. I avoid using the generic "the community," but prefer instead to qualify it: for example, the Abiquiú community, the people in Albany living inside and those living outside. Even so, each grouping can of course be broken down further or redefined in ever more intricate and complex ways.

Collaboration

Collaboration is a method for the co-production of knowledge. Many engaged approaches use activities aimed at involving communities in archaeological research based on the concept of collaboration (Lightfoot 2005a; 2008). Collaboration "emphasizes social relationships, joint decision-making, equitable communication, mutual respect, and ethics," in contrast to

consultation, which validates archaeological knowledge through "legal mandates, procedural steps, and compliance" (Silliman 2008, 7). Chip Colwell-Chanthaphonh and T.J. Ferguson (2008) describe the "collaboration continuum" along which archaeological projects involve stakeholders in the development and execution of research. In this view, collaboration is the far end of a spectrum that includes "participation" and "resistance" (collaboration's opposite), graded by the formation of goals, the flow of information, and the nature of involvement and consideration of needs across groups (Colwell-Chanthaphonh and Ferguson 2008, 10). Colwell-Chanthaphonh and Ferguson assert that collaboration is, "not one uniform idea or practice but a range of strategies that seek to link the archaeological enterprise with different publics by working together" (2008, 1). Arguments for the continued and intensified focus on collaboration consider it both an ethical and an epistemic imperative, drawing on both internal and external critiques (Colwell-Chanthaphonh et al. 2010). An important aspect of collaboration, as I use it in this dissertation, is that it has both ethical and epistemological influences on knowledge production (Wylie 2015).

A key ethical caution brought up by some engaged archaeologists in regards to collaboration is the possibility of exploitation. Some argue this has yet to be proven, while more radical Indigenous and postcolonial scholars counter, following Audre Lorde, that "the master's tools will never dismantle the master's house" (La Salle 2010). No doubt, the exploitative history of archaeology has been outlined quite thoroughly elsewhere (Moro-Abadía 2006), as traditional scholarly practices have claimed ownership of the past, actively excluding those outside of the academy. This tension highlights the importance of mutual sharing and co-construction of knowledge within collaboration to avoid (un)consciously relying upon the power inherent in archaeological "expertise" to drown out other needs, desires, and methods. I use *collaboration* in this dissertation to mean the production of knowledge by many research partners with the explicit intention of addressing exploitation.

Mutuality is at the core of my conception of collaboration and my ideal of collaborative engagement in the projects presented here. My collaborators and I have shared interests, but we also have interests separate from one another and sometimes in conflict with one another. I certainly believe that, "if the community does not help define the questions, the answers probably will not interest them" (Derry and Malloy 2003, 24; Moser et al. 2002). People in collaboration have something to lose or gain from a research endeavor that goes beyond interest. Collaboration means sharing and investing in the stakes of those involved, especially since the stakes of archaeological narratives are often very high: the representation of history and identity, rights to land and resources, and forces of well-being and livelihood.

At the same time as I invest (through collaboration) in the stakes of others joining in research, my collaborators invest in me as a researcher, in my potential to continue to acquire resources and prestige to continue in the field. Marina La Salle points out that the core goals of collaboration can threaten conventional hierarchies within academia: "A commitment to this approach challenges the identities of all who engage in research, blurring the roles of experts, teachers, students and subjects, leaving some empowered and others dislocated" (La Salle 2010, 414). This potential to challenge the status quo is also why it is so easy to create superficial investments in collaborative practice. Collaborations can upend power dynamics that stabilize academic practice. But, to do so collaborative relationships need to be more than a compromise.

Collaboration is risky. Collaborations bring broad perspectives together in an environment of mutual risk and mutual reward to produce more than either part could on its own. In commentary on Chirikure and Pwiti's discussion of the challenges of community-based

archaeology, Charlotte Damm asserts that, "for collaboration to be anything more than a politically correct exercise, all the involved parties must have something to contribute and must mutually recognize this knowledge or expertise" (2008, 477). However, she remains adamant that archaeological expertise should direct most of the archaeological work. Similarly, McGuire (2008, xii) asserts that, "speaking truth to power requires that we maintain the authority of our craft." I disagree. Collaborative activities do not have to completely ignore or shut out archaeological expertise, but research should be aimed at mobilizing and sharing that expertise in the context of two-way input. Collaboration that significantly impacts knowledge production relies on the assumption that the archaeologist has as much to learn from the collaborators as the other way around; or, better yet, to avoid creating an us versus them framework, everyone has something to learn. At their core, collaborative activities must be based on the recognition and exploration of the variety of different knowledge that people bring to the research process.

Essential to collaborative engagement is flexibility, responsiveness and a willingness to change (which dynamic understandings of community also require). Collaboration as a list of activities, or in the mode of consultation, will not upend the entrenched power dynamics of research. Pointing out the risk of a static concept of collaboration, La Salle (2010, 413) muses that, "perhaps collaboration must then be anarchic in order to emancipate, creating a 'new space' to avoid merely reifying the inequality this approach seeks to challenge and overthrow." A challenge for archaeologists is to shift our thinking away from collaboration as another method akin to soil sampling, flotation, or x-ray fluorescence, towards an understanding of collaboration's epistemic implications as a structuring principle for those activities (and others). To wit, what might collaborative soil sampling look like? I do not answer that question exactly in this dissertation, but I do attempt to consider collaboration as a key structuring principle in every aspect of the research, if not a fully achieved outcome of the projects as a whole. In Chapter 3 and Chapter 6, in fact, I reflect on the differences between the projects in light of the collaboration continuum, Wylie's pluralisms, and the flexibility of my collaborative practice.

Participation

Participation means to take part. People who take part in the activities of archaeology are participants. This is not the same as collaboration, in which people are conceived of as partners in a holistic research process with shared interests and meaningful risks and rewards. Participation is not always collaboration, but collaboration always includes participation. (I define participation somewhat differently than Atalay (2012, 55-88), whose version of "participatory research" is used much in the same why I define collaboration.) Participation can occur in the organization and design of research projects, the execution of archaeological activities, and the creation of archaeological narratives. These phases are often split up by archaeologists, causing a disconnect between the experience of research for people in real time and the description of research elements as "participatory." Participation should be both an element of the overall design of the project as well as the activities which constitute it. Ian Hodder asserts that, "the participation of marginalized groups involves a lot more than providing a stage on which they can speak. It involves changing practices and contexts so that the disadvantaged groups have the opportunity to be heard and responded to. It involves trying to move away from the methods and principles that are attuned to the Western voice" (Habu et al. 2008, 196). Participation, as part of collaboration, should begin not with the first excavation, or even the first survey of a site, but with the identification of research questions and methods.

Participation in many archaeologies is a site to examine the potential negative impacts of engaged research on communities. Being a part of research can be a burden. In the development of engaged research, which always includes participation by a group of people, archaeologists should be aware of the demands on the communities with which we work. Atalay (2012, 64) reminds us that this must begin with a process that defines the terms of participation itself. She offers key questions about time, resources, and expertise to avoid the organization of engaged research around burdensome participation: "How can we structure the partnership around existing time commitments? How can we build the community's knowledge base in ways that do not re-create or increase power inequalities?" In addition, I'd add how can we close the gap between defining participation and implementing it? How can a range of different people be brought into the conversation about meaningful research?

In many case studies, this takes the form of meetings with select community members, though attending such a meeting may be impossible or guilt-inducing, a choice perhaps between working, childcare, or other personal obligations and joining a research partnership. What is important is not the existence of such a process, or the mere scheduling of such meetings, but the approach taken within them to produce a reciprocal participatory environment. (This includes thinking about participation, and collaboration for that matter, within the academic community as well: Who is hired and mentored through the development and completion of the research? How does a project support the opening of the field to people from a wide range of identities and circumstances?) The definition of activities appropriate for participation is the key. Activities like involving local students in the execution of field work and the analysis of materials needs to be in service of community benefit as much as it is additional labor to the research process.

In the chapters that follow, I use *participation* to specify ways of relating to the research process that are within collaboration, though not collaborative in nature. This includes the way my student interns in Abiquiú used "participation" during interviews a year after completing field work. They considered themselves participants. They showed up and took part in a program I developed with others in Abiquiú, notably the adult representatives of water and history on the Pueblo. Despite my experience of learning from the interns and adapting our research program accordingly, they did not feel like active creators of the research goals or framework. In that case (see Chapter 6 for more detail), I failed to move along the continuum. While I wish to think of my youth interns as collaborators, often the reality of participation is more in line with their goals, which range from making money to gaining experience to spending time outside. So, as with all these key terms, I do not use participation to connote a particular qualitative status, but rather another reality in the ideal of an engaged research project.

Benefit

Benefit is an essential concept in most engaged research projects, especially Atalay's Community Based Participatory Research (Atalay 2012; Marshall 2002; Moser et al. 2002). Such projects usually break benefit into two types: benefit to the archaeologist and benefit to non-archaeological communities. Atalay claims that disciplinary interest in collaboration began in the 1990s with a general interest in producing benefits for archaeological research, despite the focus of Indigenous and postcolonial archaeologies on benefit to descendant communities (Atalay 2012, 44). However, while many projects that champion collaborative approaches explicitly state that producing community benefit is important, the risk remains that engaged approaches structured around collaboration and participation can foreground benefits on the discipline at the

expense of evaluating community needs, or vice versa (La Salle and Hutchings 2016; Marshall 2002).

The different needs and value systems of all partners in the research process must be considered. Framing benefit as either for the scientific goals of the research or the non-scientific needs of non-academic communities runs the risk of obscuring the multiple registers of benefits and the power structures inherently at work. It also can reify a deeply flawed and harmful stereotype of non-academic communities as un-intellectual. Community members may have a vested interest in the scientific rigor and academic validity of a project's product as much as an academic researcher, though perhaps (but not necessarily) with different reasoning (that is, curiosity, career advancement, legal evidence, etc.).

How we evaluate benefit is important. Yvonne Marshall's (2002) account of Kirk and Daughterty's (1978) work at the prehistoric and historic village of Ozette in the 1990s lauds this project as a successful early community-initiated project. However, the evaluation of benefit to the Makah community is not presented from the perspective of the Makah, but rather the archaeologists. Benefits listed are control over development and execution of the project, development of in-community preservation facilities, and publication of books and reports. These are framed as fulfilling the "goals of community archaeology" (Marshall 2002). While the Ozette project, no doubt, produced benefits such as the initiation of work by the Makah themselves, this characterization of benefit is limited to the genres of scholarly output. In another publication we see how the Makah museum is a tribal institution that is constantly revising the organization of this knowledge using indigenous language and logics (Bowechop and Erikson 2005).

Moser (2002) similarly outlines the benefits of a community archaeology project in Quseir, Egypt, focusing chiefly on economic benefits to local residents and stewards through the production of jobs on excavation sites and the development of tourist industries. These benefits were identified as such by the resident community, but underscore the same kind of emphasis on market-based, researcher-defined benefits like local archives, publications and other interpretive media, and tourist merchandise.

Benefit can come from many parts of a research project. If evaluation of benefit rests only on an end product, it risks missing perhaps the key piece of engaged research: relationship. Benefit can come quickly or slowly, range in impact, and exists in both the short and the long term. This is a challenge for conventional archaeological timelines that purport to progress linearly from development to interpretation (though any researcher would cop to the speciousness of such a timeline). Conceiving and making good on the benefits of engaged research requires, as with all of my key terms, a sustained engagement with people in the present moment. The benefits of any engaged research should also expand outside the narrow notions of what archaeological work can produce to include what matters most. This can be in the form of skills, money, increased engagement with local histories, legal evidence, increased awareness outside a community, increased or decreased access to resources, and much more.

As with collaboration, I consider mutuality a key goal when thinking about the benefits of an engaged research project. This is not the same as equality of benefit, but rather equity. I always (already) benefit from access and relationship to people and places where I can do research. Therefore, mutual benefit requires that I regularly privilege benefit to research partners and invested communities, a slow attempt to inch towards just ground. As with each of the terms above, I reflect on what benefit look like, who benefits, and how benefit is produced by research practice directly in this dissertation. I try not to take a purely celebratory view of my various

attempts at engaged research, not to diminish them, but to think seriously about the limitations of collaboration and participation in the context of a deeply colonial discipline.

Success

What does "successful" engagement look like? Many archaeologists bemoan not only a lack of case studies, but also descriptions and honest accounts of the variety of ways one can both succeed and fail in such endeavors (Chirikure and Pwiti 2008). To do so would require both the evaluations of researchers and communities and collaborators. Conventionally, researchers might ask: Was sufficient data gathered to explore the research questions? Does this data produce new archaeological knowledge? Has it influenced the thinking of my peers? Do I get credit for this work? Is it publishable? Meanwhile, partners and/or collaborators might ask: Does the archaeological research explore the questions I think are important? Did the process of archaeological research in my community benefit me or the group in some way? Do I have the power to use the research as I see fit?

My concern with the notion of "success" is both an ethical and pragmatic one. Ethically, to have "done right" by an engaged archaeological project, archaeologists and community members want to see the products of their labor produce benefit, reduce past or prevent future harm, and make a difference. This is a tall order in the complex web of relations between people and ideas that constitute the conversation between archaeology and the world. It requires clarity about my motivations and the mandates of communities, two areas which are not always well drawn out in published accounts and evaluations of projects. Evaluation needs to be made, criticism and failure acknowledged, in order to refine the toolkits available for engaged research.

The concept of "success" is also pragmatic. How does the kind of work that goes into an engaged research project "count" in the evaluation systems of the academy? A success for a community may be a failure from a research perspective, and the academy needs to develop a way to credit the attempt, risk, and process of such research (La Salle 2010; Wylie 2015). While the split between the academy and the community is the same kind of risky dichotomy mentioned above, it is nevertheless a reality for most, if not all, involved. The success of a project in the academy needs to be acknowledged in order to privilege success from a community perspective. The purpose of an engaged archaeology in my thinking is to change the process by which archaeological knowledge is created, disseminated, and "owned." For a researcher or research partnership, this is a long process that needs to be evaluated at a number of different scales, similar to our reevaluation of benefit above.

Determining if an engaged research project has succeeded or failed requires sustained engagement (similar to that necessary to define *communities*, discussed earlier as an undervalued part of the collaborative process). On a practical level, Atalay defines success as yet another term to be defined in context *by the partners involved*. Evaluation of success, thereafter, should happen regularly and project design should be kept flexible in order to respond (Atalay 2012). However, this internal form of success does not always include the realities of various forms of external evaluation (like the academy, funding agencies, federal governments, and other communities interested in archaeological engagement), which still impact the ability of a partnership to continue or achieve its goals.

I do not evaluate the projects in this dissertation as *either* successful or unsuccessful, but rather explore *how* they respond to the context of research, the desires of research partners, and the self-identified well-being of people in the communities in and on which research takes place.

Any engaged research project should be evaluated for *both* its successes and failures, rather than erasing one for the sake of the other.

Praxis

I do not list activities that create community, encourage collaboration and participation, or produce benefit and success in this dissertation. I certainly have a running list of some that I like, which is in part represented by the chapters that follow; but, even this is only a list of "things I have tried so far." To reiterate: there are no fail-proof instructions and this is not a manual. Any of the activities on an imagined list of "things that count as collaboration" could be executed in a way that uphold, or even increase, the levels of extractive research currently present in our discipline.

I attempt to achieve engaged research using the idea of praxis, or "theoretically informed action" (McGuire 2008, 3,5). This idea is specifically informed by Indigenous and postcolonial critiques of the extractive nature of (archaeological) research. The goal of my praxis is to (re)orient the way archaeological knowledge is created, disseminated, and "owned" in relation to the needs and desires of contemporary communities. I align my practice with three values: ceding power, producing community benefit, finding common ground. And I attempt to put this into action through four activities: creating/following a structure of accountability, creating/following a collaborative process, ensuring (re)investment in the community, and producing a meaningful and legible product. Archaeological praxis is hard won at the intersection of the theoretical goals of postcoloniality or emancipatory research, and the practical realities of ceding power over archaeological knowledge production to those from whom history and experience of the past originate. Key to all stages of engaged research is an open recognition of the intellectual basis of such goals, the key concepts that require a shared and clear definition, and the multiple, potentially competing, value systems at play.

Considering these values I have outlined, I attempt to counter the unequal power dynamics of anthropological research by organizing research projects in ways that center people and community mandates. Fundamental to ceding power is, of course, recognizing what power I have or resources I have access to. Simultaneously, it's critical to develop relationships, expectations, deliverables, and feedback opportunities which allow people other than the archaeologist to exercise their own power. By following this value, I assert that the needs and desires of communities are primary and I aim to organize research activities in ways that maximize benefit. Common ground orients all of my praxis around the work of meeting people where they are, and in so doing recognizing what ground I stand on and how it affects my relationships with research partners.

Following from these values are the actions I have outlined. First, a *structure of accountability* requires every aspect of research to be accountable to some person or persons other than myself and my academic community. The primary onus of establishing that accountability falls on me. Pragmatically, this means that I am responsible for seeking out opportunities and systems which make me accountable in a way that I do not control. This can take the form of making it easy for community members to understand what kind of data archaeology can produce, how they want to use it, and how or to what extent they want control over all actions of the project from development through interpretation. This act contributes to the ceding of power, which does not necessarily mean placing the burden of labor or expertise onto community members exclusively, but rather ensuring that, at the end of the day, someone else (also) has control.

Ideally, the structure of accountability should include clear definitions of the rights of communities to both the production and use of archaeological knowledge, as well as the power to control the objectives and activities of research. The pragmatics of such a structure depends wholly on the realities of the communities involved (i.e. using existing governance structures to "vote-in" archaeological work vs. creating new forums in which participation and accountability can be produced in forms designed by the academy). Creating such a structure requires both a recognition and reversal of this dynamic, achieved through activities which create a clear intention of permission seeking (by me "the archaeologist" but also me the "person") rather than opting in (by the "communities" but also "collaborators" and "people with whole lives"). This ethos of permission-seeking creates an environment that encourages flexibility in who "counts" as the community relevant to research. The makeup of a community can change, for instance, or peoplw or groups who could not or did not get involved at earlier stages can still be involved in later stages. I am not the arbiter of who is in or out of "the community" associated with engaged research.

The second activity guided by these values is the development of a *collaborative process*. In "The Terms" section above, I have described the definition, stakes, and issues when it comes to collaboration within archaeology. This activity requires that from the beginning I consider research not *my* project, but an activity that requires I be invited or seek out research partners. The difference between invitation and seeking out research partners is a core comparison I make between the two projects presented in Chapter 3.

Thirdly, *ensuring (re)investment in the community* is structured around the value of producing community benefit. To do so, I must also orient the design and execution of research towards a shared goal in ways that produces meaningful benefits. Also in "The Terms" section above, I have discussed the wide possibilities of what counts as a benefit; though part of this goal regards the fourth action of my praxis: to produce a meaningful and legible product—at least one, if not many. The entire research partnership, and those who have other stakes in the narrative it produces, needs to be clear on the media produced by the research and those media should have meaning to everyone involved.

Within each project that follows, these values and activities underlie the execution of research and my analysis of their products. The Berkeley-Abiquiú Collaborative Archaeology Project more clearly illustrates the outcomes of these activities, while The Albany Bulb Archaeology Project provides an opportunity to reflect on differences that can arise in practice without preventing archaeologists from attempting engaged research.

Asserting presence (or, things archaeologists can do)

Both projects I discuss in the following chapters are attempts at presencing: presencing stories, identities, materials, and landscapes that people could otherwise ignore, dismiss, or destroy. Asserting presence is perhaps the most essential way to sum up what my research partners, participants, and stakeholders asked for. These projects occurred because the results of archaeological research matched the goals of people who felt (and still feel) unseen. During an event to edit archaeological maps of Albany Bulb home sites, former resident Amber Whitson said, "I just wish the people of Albany could see this." The maps from that project presence the practices of care and homemaking that were erased by city evictions, while countering stereotypes she felt the housed community of Albany held about her and other "landfillians."

Likewise, the BACA Project is oriented around mandates to produce narratives about the history of Genízaro people on the pueblo, a history that is largely left out of the constant tours of Georgia O'Keeffe's house near the center of the village. Archaeological documentation of *acequia* irrigation ditches presences water and the people that use it in narrative forms recognized by both state governments and Abiquiúceños.

Archaeology is excellent at making things present. Stereotypically, it brings things once buried out of the ground and into the light, sometimes literally removing skeletons (from the floor of) closets. More realistically, archaeology notices fragments, traces, and patterns. It records this practice of attention in maps, tables, illustrations, photographs, and writing. These forms are new presences, amplifications of what was there but newly asserted. As the above section, "More than a compromise," suggests, however, this does not automatically make archaeology an altruistic endeavor. Archaeology can assert presences that are unwelcome, violent, misguided, or plain wrong in myriad ways. In both projects included in this dissertation, I am concerned with how archaeology comes to create narratives (textual, visual, or otherwise) that circulate and constitute the meaningful and ethical outcomes of research. As part of the research I undertook in these cases, creative projects specifically helped take advantage of the authority of archaeological narratives/images to counter the belief that the representation of something is completely separate from its object (i.e. the map or the drawing does not influence the site or the artifact). These creative practices and products emphasize the intermingling of materials and effects through research. This dissertation is the beginning of a larger exploration of how archaeological research, paired with creative practice, executed under the values of engagement and praxis outlined above, can presence histories in landscapes (Danis and Weinreb 2018; Danis, Linke, and Steves 2014).

Producing the Past in the Present

The kind of presences that matter to people at the Albany Bulb and in Abiquiú are both material and temporal. To participate in the process of asserting them, I take a particular position on archaeology in/of the past, present, and future. I define archaeology as the study of the relationship between people, places, things, and time, building on Rathje (1979) and others who expand the definition of archaeological practice. Indeed, the practice of archaeological research participates in understandings of "the past in the present" (Harrison 2011; Olivier 2011). This manifests for me as the deliberate consideration of peoples' stories, peoples' things, and the way peoples' histories materialize on the landscape. I take seriously the imminence of the past in the present to reflect on both projects as activities of interacting with the many temporalities that congeal through material, storytelling, tradition, change, the weather, ritual, and more. The production of the past in the present happens with or without archaeological or artistic intervention, but those actions impact the recognition of past-in-present-making in crucial ways.

By recognizing the production of the past in the present, I accept the politically and socially active position of archaeological research. As many have expounded, archaeology does not provide a neutral position from which to view the past, but rather "a heuristic tool for self-reflection and therefore…a platform for political action based on challenging the status quo" (La Salle 2010). The practice of creating narratives about the past, in the present, is a performance of value. Asserting presences is a political act.

Representation and its "ism"

Archaeological presencing can be described, in part, as a process of representation. Raymond Williams writes that the term "representation" encompasses "a range of senses of making present: in the physical sense of presenting oneself to another, often some person of authority but also in the sense of making present in the mind…[and] the eye," whilst also symbolizing or "standing for" (1985, 266–67). The concept of representation is enmeshed with its oft-collaborators, interpretation and presentation, and I want to be clear about how I use them in this text. Interpretation, presentation, and representation are simultaneously nouns *and* verbs; they can be both a thing and a process. Literary historian, Christopher Prendergast (2000), claims that there has been a historical shift from looking at all three concepts as problems of things or content to looking at these as problems of process or practice. This shift has significant impact on our theorizing of everything from literature and painting to language and culture. As both objects and processes, these three concepts pose different problems, both in their semantic and intellectual histories and in their social and political implications and agency.

As I discuss further in Chapter 6, *An interpretation is a thing that interprets*. *A presentation is a thing that presents. A representation is a thing that represents.* Representation occurs in both projects in this dissertation. It does so as the result of archaeological data collection, creative production (art), and anthropological reflection on the place of research within its social context that constitutes this document. I frame my work at the Albany Bulb and in Abiquiú as projects of representation against *representationalism* and, in this text, I reflect on how this might have (not) been true so far. Representationalism is the belief that a representation and the thing it "represents" are completely separate, without any material/energetic relationship to each other. This is in contrast to a belief that the thing which represents and the thing which is represented co-construct each other. The most basic version of representationalism in philosophy states that, "our immediately experienced sense-data, together with the further beliefs that we arrive at on the basis of them, constitute a *representation* or depiction of an independent realm of material objects—one that we are, according to the representationalist, justified in believing to be true" (BonJour 2013). I take aKaren Barad's critique of representationalism, which I discus further in Chapter 6, as a starting point to reflect critically on the products of creative, engaged research. Representationalism is something I want to avoid, even while producing maps, images, and narratives. These media are not presentations in the idealized form posited by New Materialist art theorists because of their context within modernist archaeological genres. I demonstrate that, produced in the context of engaged research, the process of representing can be diverted from a representationalist fate; rather, they can be created under the assumption that their existence affects that which they represent.

Archaeologists interested in "the material turn," and/or theories of New Materialism, have had much to say in the way of object agency, object oriented ontologies, and symmetry (Hodder 2012; Holtorf 2013; Hurcombe 2007; Joyce 2015a; Knappett 2002; Olsen 2007; 2010; 2012; Robb 2010; Shanks 2007). Most of these works do no confront the foundational "cut" of representational*ism,* which a monist realist philosophy of matter attempts to suture (Barad 2007; Bennett 2010; Castro and Skafish 2014; Coole and Frost 2010; De Landa 1997; Dolphijn and Tuin 2012). The problem of *interpretation* has a long history in anthropological and archaeological thought (Behar and Gordon 1995; Clifford, Marcus, and School of American Research (Santa Fe, N.M.) 1986; Hodder 1985; 1991; Shanks and Tilley 1992; Starn 2015), but the problem of *representation* has been segmented and distributed across different fields. These are split between the socio-political implications of archaeological practice in a legal or moral

sense—that is, representing as standing-in or speaking for—and the media through which archaeology represents its ideas, narratives, or interpretations. I have discussed the first sense above, focusing on collaboration as an answer to the ethical quandaries of the representation of others' stories.

Scholars have explored the use of "pictorial" media by archaeologists and non-archaeologists, the intersection of creative art practice and archaeological research and outreach, and the potentials of alternative forms of representation or "new media" to affect the communication of archaeological concepts. In these discussions, "archaeological representation" can mean a number of things:

- What archaeology makes: the media through which archaeological knowledge, narratives, or truth claims are transmitted, both to non-archaeological audiences and within academic circles (i.e. written narratives, maps, photographs, illustrations, etc.).
- What archaeology claims: the conceptual forms archaeology uses to represent people, places, and events in the past (i.e. the concepts formed by narratives about people, who may or may not speak for themselves in the creation of representations).
- What others make of archaeology: the way archaeological *practice* is portrayed in various media to a public or audience (i.e. images the process and products of archaeological research in print, film, television, web, etc.).

The question of *how* representation happens is not central in most of the analyses by archaeologists. Considering the process of representation in archaeology (rather than a visual analysis of a product, for example), means building upon existing theories of representation from art and literature that are not typically part of the archaeological canon. Thus, concern with representational practices in archaeology fall along two lines: 1) how forms of representation are viewed outside of the discipline, and 2) how forms of representation are essential components of the practice of the discipline (Bernbeck and Van Dyke 2015; Hamilakis 2001, 2007; Holtorf 2005; Jameson, Ehrenhard, and Finn 2003; Joyce 2002; Smiles and Moser 2005;). There is a strong affinity between archaeologists concerned with representational practices and the semiotic analyses of texts and narratives that emphasize the masking/naturalizing quality of media/representation (Barthes 1981; 1985; Berger 1984; Hawkes 2003; Parmentier 1997; Sontag 1977; 2001). These two topics are addressed asymmetrically across the archaeological literature. Descriptive, historical and art practice-based approaches to the problem of representation in archaeology are not generally brought into dialogue. A notable exception is Languages of Archaeology (2002) where Rosemary Joyce and her interlocutors use the work of Rom Harré and Mikail Bahktin explore the mechanisms by which archaeological writing make meaning.

Through reflection on the creative representations produced in two collaborative research projects, I hope to expand on previous work on archaeological representation to include the acts of making image, text, and performance as part of a holistic archaeological practice. In this text, I foreground archaeology as a representational practice in order to interrogate how representationalism is at work, and how different practices can challenge its primacy in the research context.

Ways Artists Engage*: Social Practice*

To assert presence ethically, I need to expand the range of representation available to my research practice. I also need a framework with which to reflect critically on the representational

practice already normalized by anthropological archaeology. I started thinking about, and making-to-think-about, art (see Conclusion). The depth of debate around defining the field of contemporary art practice is necessarily wide, and I do not fully address the breadth of scholarship about it produced by art historians and art critics. Rather, I try to make sense of my position within a community of practitioners through the writing of art critics and art historians. Art historian and curator, Miwon Kwon, defines the goals of land art and place-based art (from which I have drawn early inspiration) as a practice that attempts "to negotiate, to coordinate, to compromise, to research, to organize, to interview, etc." (Kwon 2002; 1997, 103). Grant Kester (2004), also an art historian and curator, similarly considers the goals of socially engaged art as "to generate, to change, to contribute, to enact, to dialogue, to translate, to appropriate."

Within both clusters of verbs is my own version of creative practice, driven by my desire to collaborate and create meaningful narratives of the past in the present. Through creative practice, I negotiate, coordinate, research, and interview, in order to change, contribute, enact and dialogue. The creative aspects of the projects in this dissertation have informed my more recent work, which continues to consider socially engaged, participatory, and "social practice" art as a complementary toolkit to engaged research. Having both toolkits helps me expand the forms of knowing represented by anthropological archaeological research in this mode.

The disciplinary legacies of social practice include legacies of conceptual, participatory, and political art practices reaching back into the early 20th century (Bishop 2012; Jackson 2011). In the 1960-70s, "institutional critique" forged work that, "investigated the conditions of the museum and art field, aiming to oppose, subvert or break out of rigid institutional frameworks" (Raunig and Ray 2009, xv; see also Frazer 2005). This provided a bridge from earlier situationist work to more contemporary activist art movements. Primary to art historical narratives of social practice are the evaluation of 1990s "relational aesthetics." Critic and curator, Nicholas Bourriaud, coined this term to describe, "art taking as its theoretical horizon the realm of human interactions and its social context" (Bourriaud 2002, 14). He also described, "interactive, user-friendly and relational concepts" (8), and "artistic praxis as a rich loam for social experiments…so many hands-on utopias" focused on generating "convivial" encounter/engagement/experience (9).

Claire Bishop (2004) takes to task Bourriaud's overly forgiving definition of relational aesthetics as inherently political or democratizing based on the mere existence of "participation." Using Ernesto Laclau and Chantal Mouffe's (1985) theory of democratic antagonism and Lacan's theory of subjectivity (Evans 1996), Bishop claims that relational aesthetics as defined by Bourrirard are not de facto democratic, as they smooth over the insecurities of subjecthood and the challenges of difference within the audience "community." By comparing the work of Rirkrit Tiravanija and Liam Gillick to Thomas Hirschhorn and Santiago Sierra, she passes a judgement on the political efficacy of relational works through the rubric of antagonism rather than an "ethico-political" rubric. She claims that while relational aesthetics is premised on the creation of relationship, the qualities of these relationships has not been properly evaluated. Tiravanija and Gillick take an optimistic and utopian approach to what artistic instigation of encounter can do, but Gillick and Hischhorn in her view create more meaningful relationships through "antagonist" work that uses discomfort or tension (Bishop 2004).

Social practice diverges from relational aesthetics and institutional critique. Social practice continues the work of institutional critique in as far as it continues to critique the institutions of production and produce art work through relationships. It diverges by foregrounding collaboration rather than participation. Descriptions of social practice art in the

US typically include politically motivated works that exist in some capacity outside of the museum, gallery, or private collection (Jackson 2011). The term "social practice" tends to organize interdisciplinary work that includes long community engagements employing "the expanded field of contemporary arts as a collaborative, collective, and participatory social method of bringing about real-world instances of progressive justice, community building and transformation" (Sholette and Bass 2018). Nato Thompson (2012) deems social practice, not an "art movement" per se, but rather a "a new social order" or "ways of life that emphasize participation, challenge power, and span disciplines ranging from urban planning and community work to theater and the visual arts." This term encompasses many ways of art making including "participatory art, interventionist art, agitprop, institutional critique, interactive installations, collaboration, happenings, actions, meetings, seminars, eco-art, crowd management, and street theatre…premised upon a DIY philosophy of barter, exchange, and shared labor" (Klein 2015).

Let's take for instance that, under the umbrella of relational aesthetics, an artist might open a cafe or a bar in a gallery space or another setting in which an audience expects "art" in order to produce a community, a set of relations, intimacy or communication. In the spirit of institutional critique, the goal of this encounter might be to reveal the hidden or unnamed context of either the art or cafe institution. Divergently, under the umbrella of social practice, an artist might ask a series of questions about cafes in a particular location or context, research and engage with people who run and/or use cafes (or feel left out or forbidden from them), and collaborate with people for whom cafe running is an expertise in order to intervene, augment, or otherwise engage a pre-existing cafe experience.

Reflecting on Bishop's critique of the response to relational aesthetics in the early 2000s, Kester (2006) argues for a move away from talking about "politically engaged art," towards identifying a "continuum of collaborative and 'relational' practices." Sound familiar? While I doubt the archaeologists behind the "collaboration continuum" (Colwell-Chanthaphonh and Ferguson 2008) were reading art criticism as inspiration, there is a synergy between the two practices and a historical moment in which both starting points are forged. The use of terms community, collaboration, participation, and benefit are signposts of shared impulses drawn from different internal and external critiques, as well as the dominant language of social organizing. This seeming coincidence points to shared challenges for both engaged research and social practice art.

Given these definitely optimistic (and perhaps dogmatic) declarations of what social practice is, I do not care to claim that this represents all social practice. Instead, I find this range of work to be a useful orientation, a way of facing toward other work with similar questions and intentions. It also provides an opening, a justification and way of speaking about why and how creative practices participate in socially motivated projects. In particular, I find a useful affinity between its questions, complications, and engaged research.

As with engaged research in archaeology, "spectrum thinking" in art comes from the significant difference in position regarding knowledge or art production. In creative terms, philosopher, Jaques Rancèire, identifies what is at stake when assessing "participatory" art: "Spectatorship is not the passivity that has to be turned into activity. It is our normal situation. We learn and teach, we act and know as spectators who link what they see with what we have seen and told, done and dreamt. There is no privileged medium as there is no privileged starting point" (Rancière 2004 in Bishop 2006). Claire Bishop writes: "The opposition of active and passive is riddled with presuppositions about looking and knowing, watching and acting, appearance and reality…Emancipation should rather be the presupposition of equality: the

assumption that everyone has the capacity for intelligent response to a book, a play, a work of art…[social practice should be] putting to work the idea that we are all equally capable of inventing our own translations" (Bishop 2006, 16).

This is where the projects presented in this dissertation align with social practice art. The fundamental starting point for research is that everyone produces knowledge in meaningful ways—and research which acknowledges, accepts, and foregrounds this is better. Furthermore, this knowledge is continually translated, re-represented, and transformed, and creative practice that acknowledges the possibilities of this representation (that builds from the recognition that we are all capable of inventing our own translations) will produce both aesthetically and socially meaningful work. The projects I outline in the following chapters are part of this ongoing dialogue around social practice art. Like engaged research, social practice challenges systems of evaluation, engages assumptions about value, and questions the "who" of spectatorship and participation. It needs to ask:Is it good art? Or good social work? Is participation always democratic? Is dialogue de facto positive? Who is included? Who is "the community"? In Chapter 7, I turn from the debates of social practice to the framework of research-creation as another way to identify and reflect on the processes of representation.

Landscapes of inequality, places of survivance

There is another unifying element across both projects I would like to highlight: the way that people, material, and landscapes produce the context of research. The intensities of people, practices, and the material/spatial dimension of place constitute the content-focus of this dissertation: landscapes of inequality.

People at both the Albany Bulb and Abiquiú cohere as groups because they arrived at a *place*. A place is not just a spot on the map, but an intensity or congealment of history, activity, people, soil, buildings, memories, animals, and perpetually more. Drawing from critical humanistic geography, I use the term *place* as a contested concept, embedded within dynamics of agency, power, and history. Most useful to me is an understanding of *places* as embodied practices, stages of intensities, performances, and layering of histories (Cresswell 2004; Lippard 1997; Massey 1997; Thrift 1997). From this perspective, I engage with the history and materiality of the Albany Bulb and Abiquiú as part of the ongoing creation of places from the past into the present.

Dorreen Massey offers a further illuminating conception of place as, "moments in networks of social relations and understandings," rather than strictly bounded geographic entities (Massey 1997, 154). This definition, she suggests, allows for multiplicitous senses of place that are "extroverted," and thus defined relationally and socially. Primarily focused on "linking" rather than bounding, this sense of place reforms traditional notions to include fluid, but no less unique, places. This fluid, networked sense of place is a response to the "power geometry of space-time compression" which produces the relationships of social groups today (Massey 1994, 149). This geometry both masks and reveals the struggles of groups endowed with the power (or lack thereof) to move, inhabit, and be in places. Massey's conception of place attempts to mirror the complexities inherent in this geometry.

The concept of place that I use in this dissertation relies, moreover, on an understanding of "sense of place." By this, I mean not just that there are particular ways of knowing a place, but also that places themselves *are* ways of knowing (Basso 1996; Tuan 1977). In particular, in northern New Mexico, historians of acequia culture reference the spanish term *querencia* which

is sometimes translated as "sense of place," but also "*love* of place" (Arellano 2014, 5). This word highlights the emotional and phenomenological intensities of place. The meaningfulness of place is key to understanding why the projects in this dissertation happened the way they did. People love their places and places come to be through this affective relationship. At the same time, "mundane qualities of experience … while unnoticed, form a sense of place" (Tringham 2012). Sleeping or gardening at the Albany Bulb, or irrigating and story-telling in Abiquiú, are the foundation for querencia—the unique sense of the place that makes it meaningful, unique, and loved.

Both groups of people arrived at their places as part of a complicated intra-action (as opposed to interaction) of large-scale, systemic inequality and personal agency. The people building homes on the Albany Bulb despite the systemic violence of contemporary capitalism, as well as the people labeled Genízaro, negotiating their autonomy in the racial/ethnic hierarchy of Spanish Colonial society, are congealments of material-social circumstance, persons, flows of water and soil, history, memory, governance, seasons, and geology.

My research partners and I encountered these places as part of landscapes. Much has been made of the origin of the term landscape from painting traditions of renaissance Europe (Cosgrove 1998; Jackson and Horowitz 1997). In that sense, landscape was "a portion of the earth's surface that can be viewed from one spot," implying *what* and *how* topography can be seen (Cresswell 2004; Rodaway 1994). But landscapes have been revived as another scale of meaning in which people encounter the world through movement, while places come to be known in comparison to each other. For example, Tim Ingold's concept of "taskscape" (1993) is very similar to Massey, Thrift, and others' progressive and non-representational notions of place. While earlier versions of landscape theory place the viewer strictly outside of it (as in traditional European painting), the view I take is that landscapes, like places, are also something to be "inside" (Cresswell 2004).

Survivance

The landscapes at the center of this dissertation are characterized by the condition of inequality, as well as the material practices people undertake because and in spite of colonialism and capitalism. Although I use the word "inequality," I do not consider these projects archaeologies of suffering, nor archaeologies of noble (often code for "hopeless") resistance. Instead, I want to recognize how all the traces that make up this dissertation are more than just attempts to preserve "bare life" (Agamben 1998; De León 2015), but are elements of persistence and survivance (Vizenor 1999).

"Survivance" was coined by Anishinaabe scholar and writer, Gerald Vizenor (1992), who adopted the French word *survivance* to combine the words "survival" and "resistance" to describe the ongoing, processual experience of Indigenous people, communities, and culture in North America. This term has been taken up in Native American studies and anthropology to (re)orient narrations of Indigenous experience away from a passive response to colonialism, toward "active resistance and repudiation of dominance" (Sheptak 2019, 20 drawing on Vizenor 1999, vii). Survivance pushes against an "either/or" response to colonial violence as submission or outright rejection. "Unlike the idea of resistance," explains Rosemary Joyce, "survivance can unfold in ways that work through and with the new opportunities provided by the colonial and nationalist situations in which Indigenous peoples of the Americas have participated for more than five hundred years" (Joyce 2019, 2). Narratives of survivance do not romanticize the

struggle of native people, but rather include agency as an important element (Atalay 2006, 609; Silliman 2014, 59).

In archaeology specifically, survivance has been used as a framework to open up narratives of Indigeneity limited to a teleology of colonial assimilation or erasure (Sheptak and Pezzarossi 2019). Survivance challenges various programs that use archaeology to delegitimize certain claims to Indigeneity because change in practices and traditions are deemed to be "inauthentic." Archaeologists use survivance to reinscribe Indigeneity despite, and even because of, "continuity with change" (Sheptak 2019, 19). Survivance as an analytic is, "corrective to the view that Indigenous histories of change are narratives of loss of identity, loss of authenticity, and loss of group cohesion. These loss narratives silence Indigenous voices and erase Indigenous actions. Archaeological narratives of 'conquest,' 'colonization,' and contact that are based on loss narratives assume that pre-contact was the last time Indigenous people were authentic. Such notions are colonialist" (Sheptak and Pezzarossi 2019, 16).

This term influences how I think about "rootedness" and place in the case studies that follow. Thinking with survivance as a denial of modern Euro-American fixations with authenticity highlights how often, especially in archaeology, "Indigeneity" relies on continuity in place (Sheptak and Pezzarossi 2019, 17). As Sheptak and Pezzarossi assert:

> Places are important to Indigenous survivance. People are related to places, to landscapes…But they demonstrate alternative geographies and cartographies that complicate our understanding of the modern landscape as indicative of nationalization, colonization, and loss. Rather than seeing change as a loss of authenticity, the contributors demonstrate how change allows people to continue in their historical relations with their land, their predecessors, their traditions, and their values (2019, 17).

Combining Vizenor's survivance with DeCerteau's idea of persistence through strategies and tactics (appropriating the tools of the powerful), Sheptak (2019) (re)narrates the history of an Indigenous community in the Caribbean as one of continuities and change, rather than disappearance, acculturation, or loss of authenticity. He identifies a range of practices that demonstrate survivance in historical documents and archaeological assemblages from the *pueblo de Indios* of Masca from early colonization to the present. Because, not in spite, of their moving twice from the coast inland over a few hundred years to escape the violence of pirates and slave traders, the people of Masca have asserted a continuous identity. They adopted certain elements of Spanish law and religion, continued the use of Indigenous surnames, advocated for the cultivation of cacao, and adapted Indigenous pottery forms using new techniques, even when intermarriage with people of African descent have been "used to delegitimize them as 'authentic' Indigenous communities" (Sheptak 2019, 19). Ultimately, "drawing on Vizenor's concept of survivance, we can see that regardless of the degree to which these practices drew on newly created structures, colonial institutions, or newly available goods, these were all actively created, maintained, and transformed as part of a concerted and successful effort to maintain historical connections over time" (Sheptak 2019, 21).

Silliman (2014) takes a different approach to survivance, tempering the intentionality of maintaining historical connections with an understanding of "residence" as a balance to the resistance element of Vizenor's survivance. For Silliman, residence is the act of "people staking out claims for themselves," an alternative to dichotomous thinking which suggests there is only

passive submission or heroic resistance. Nonetheless, he uses survivance to "avoid the trap of treating history too neutrally, or conversely, too negatively" (Silliman 2014, 58)—that is, treating native survival as a passive outcome for the victimized remnants of colonial domination in his analysis of archaeological materials of the Eastern Pequot of Connecticut.

Survivance accurately describes the conditions of research in both Abiquiú and the Albany Bulb, although residents of the Bulb did not claim Indigeneity. I expand the concept in the Albany Bulb case to suggest that survivance can be a useful term in other subaltern experiences. The concept allows me to interpret the material traces of care, home-making, gardening, or agriculture in both places as part of an empowered, rather than diminished, process that grows from disenfranchised groups doing more than just surviving or rejecting wholesale new tradition. It reminds me to look for traces of more than just resistance, but persistence and survival all at once. The projects I describe in the following chapters elaborate the material dimensions of survivance in two strikingly different, but equally persistent, communities.

Colonialism and Capitalism

Colonialism and capitalism are systems within which people at both Abiquiú and the Albany Bulb come to be known to each other, to me, and to anthropology. They are also the conditions which produce the landscapes of inequality at question in this dissertation. These large-scale historical processes are part of the congealment of people and things that are at the center of my analysis. I want to acknowledge these phenomena as real influences at a historic scale on the intimate experiences, places, and landscapes discussed in these two projects. I do not, however, want to establish them as monolithic or deterministic backdrops, and certainly do not intend a full treatment of the literature discussing them. Instead, I use them to continue reflecting on the stakes of my research.

Colonialism is a technology of rule based on the occupation of territories and elimination of Indigenous populations (drawn from Simpson 2007, 95). The Spanish Empire of the 17th and 18th centuries underpinned its occupation of the land that is now New Mexico and California (and the rest of the Americas) with a belief in the inherent difference between Indigenous people and those of "pure" Spanish descent. This belief justified the violent co-opting of land, people, and practices. These logics of colonialism underpin the justification of the "all-but-slavery" which brings Indigenous people from a range of tribes together in Abiquiú after indentured servitude in Spanish colonial households (Brooks 2002; Reséndez 2016).

In the present, *settler* colonialism fills the gap left by the colonial failure to completely "eliminate indigenous people; take their land; [and] absorb them into white, property-owning body politic" (Simpson 2014, 8). Settler colonialism is the context of current community research in northern New Mexico, the Genízaro Pueblo of Abiquiú and, in a different way, the Albany Bulb. The connection in New Mexico is direct; the history of Genízaro Indigeneity is directly tied to colonial rule and histories of explicit and structural violence. The creation of the categories of "Indigenous" and "Western" or "Euro-American" underpins the logics of settler colonialism in Abiquiú that were organized around different binaries under different regimes (indio/hispano under Spanish occupation, Indian/white under American occupation). Settler colonialism also haunts current issues of displacement in the San Francisco Bay Area (Baumohl and Miller 1974; Herring 2014; Rossi 1989; Wright 1997).

Four and a half miles away the Bay Street Mall sits atop the remains of the Emeryville Shellmound, a sacred place for the Oholone people who live in the east bay to this day. The shell mounds, built from shellfish shells, lived on, worshipped on and used as places to deposit the

dead dotted the bay shore for thousands of years as part of the Ohlone landscape. In the early 1900s some of the shell mounds including the Emeryville mound were excavated, and by mid-century, they had all but disappeared, remaining in the names of streets and local memory (Broughton 1996; Shaw 1998; Wallace 1975; Schenck 1926). In the early 2000s the redevelopment of the industrial lots ontop of the Emeryville Shellmound to build the Bay Street Mall uncovered Ohlone burials. This uncovering initiated a controversy over the use of the site that continues to this day (Cediel 2005). Closer still to the Albany Bulb, the West Berkeley Shellmound, also excavated, also razed and built over, continues to be the object of activism oriented toward the continued development of the fourth street shopping district.

The logics of settler colonialism that authorized the destruction of the shell mounds are also at the root of property and habitation laws that structured the eviction and subsequent development of the Albany Bulb as a park to the benefit of some people over others. Anthropology has been a tool that provided a theory of the "other" to transform this logic into actionable policy in the more recent past. And the implication of anthropology as a field within the continuation of colonialism as settler colonialism underpins my engaged, activist approach to research for both projects outlined above. The logics of settler colonialism are at the root of property and habitation laws that structured the eviction and subsequent development of the Albany Bulb as a park to the benefit of some people over others.

Capitalism, another strategy of domination, extends the legacies of colonialism further into the present and future of both places. Capitalism is an economic system that similarly justifies the co-opting of land, people, and practices under the logic of "free enterprise," controlled by individuals, rather than the state. Capitalist notions of the value of land and human life grow out of settler colonial beliefs and locate profit as the primary motivator of social organization (Steves et al. 2017). Elizabeth Chin reminds us of the all-encompassing role of capitalism in the narration of personal and historical experience: "The textured and deeply felt ways our collectively held notions of personhood and emotion are produced in and through the dynamics of capitalism" (Chin 2016, 21).

People at the Albany Bulb come to know each other within the conditions of economic inequality produced by capitalism in the United States. The experience of homelessness is created by systems which limit people's access to basic services and, as such, the systems which produce wealth. Bourgois and Schonberg sum it up thusly: "The US Neoliberal political-economic model of capitalism—free markets protected by law enforcement and military intervention, for the benefit of corporate monopolies with minimal redistribution of income and social services for the poor—has obviously exacerbated homelessness" (Bourgois and Schonberg 2009, 317). In Abiquiú, capitalist ideology predicates the conception of water as a private resource enforced by the state engineer's office, which conflicts with communal practices of sharing and using water in the acequia system. As the focus of creative archaeological research, documentation and analysis of the acequia system as a hydrosocial practice pushes back against the de-historicizing tendencies of capitalism.

Both colonialism and capitalism are historical and on-going in the intra-action of people, things, and landscape in the Albany Bulb and Abiquiú projects. Their material dimensions inflect the experience of history, place and identity. The landscapes of inequality that my research focuses on are not simply the passive products of these forces, but active elements in its formation, continuation, and dismantling.

Intra-action, Congealments, and Orientations

Thinking of landscapes in terms of inequality, colonialism, and capitalism is a material endeavor. Indeed, recognizing the implications of these histories within colonialism and capitalism rests on the shoulders of Marxist materialist analysis (Appadurai 1986; Stallybrass 1998). I use the concepts of intra-action, congealment, and orientation to explore the conditions of material things, people, and large-scale political and historical dynamics. Intra-action, congealment, and orientation offer an alternative to the separation of things from humans, or situations from their material elements, social behaviors from natural cycles, and history from the present. I draw these models from a body of literature recently dubbed, "the new materialisms," whose authors are concerned with the ontological position of subjects and objects (Barrett and Bolt 2013; Coole and Frost 2010; Dolphijn and Tuin 2012; Ravenscroft 2018; Rosiek, Snyder, and Pratt 2019).

I approach the material produced by both of my projects from the position of agential realism—a position that foregrounds "feminist, anti-racist, post-structuralist, queer, Marxist, science studies, and scientific insights" (Barad 2003, 810), in order to produce a monist, relational ontology. This is a theory of the nature of being ("ontology") which describes being as emergent through relations ("relational"), and concomitantly does not separate subjects from objects, humans from things, cultural processes from natural ones, and all these from each other and any other either/or (that is, "monist," as in "all one," in opposition to the more recognized materialist "dualism" or "dialectic"). This "new" materialism describes the kind of congealed relations that define being in the world as human/nonhuman/process/place together becoming, co-constructed and in intra-action. This is not a "symmetrical" theory of object agency in which things have equal agency to humans (Shanks 2007), but rather an attempt to understand materiality as relations, not just as the physical aspect of the world (Joyce 2015b).

Of course, whether this philosophy of materiality is "new" is a point of contention for scholars familiar with other ontological systems across time and space, especially those that have been marginalized or actively erased by Western Philosophy (Ravenscroft 2018; Rosiek, Snyder, and Pratt 2019). Elizabeth Chin (2016), for instance, takes purely philosophical dialogues to task for nearly always erasing race as part of new materialist thinking.

I hope someday to revisit this material with a greater understanding of monist ontologies from within the communities of concern; but, for now, I draw on the actively developing Euro-American literature as one entry point. In particular, I use the idea of *intra-action* to describe the relations of people, objects, social phenomena, history, landscapes, and concepts in these communities. Intra-action suggests, "the mutual constitution of entangled agencies" (Barad 2007, 33), as opposed to *inter*action, which alternately suggests that agencies are already separate prior to their engagement. Intra-action asserts that things do not exist separately outside of the phenomena in which they take part. Through intra-action, agency is considered, "a dynamism of forces" (Barad 2007, 141). "[Intra-action] acknowledges the impossibility of an absolute separation or classically understood objectivity, in which an apparatus (a technology or medium used to measure a property) or a person using an apparatus are not considered to be part of the process that allows for specifically located 'outcomes' or measurement" (Stark 2016). This provides a model of relationality that demonstrates the co-constitution of the archaeological materials my collaborators and I create, our interests and political positions as people engaged in the research process, and the variety of historical actors (human, mineral, and otherwise) that congeal together as places, ideas, artifacts, traditions, or landscapes.

Congealment is the second model which allows me to think with agential realism and approach a relational-monist ontology. Congealment describes the relational intra-action I experience as things/places/people/time and a "vital materialist affirms a figure of matter as an active principle, and a universe of this lively materiality that is always in various states of congealment and diffusion" (Bennett 2010, 93). Home, The Albany Bulb, Brick, Collections, Acequia, Genizaro, Abiquiú (some of the main characters in the chapters that follow) are all more than the sum of their parts. Many archaeologists use the idea of assemblage in this way. I find the definitions of the term assemblage as suggested by Deleuze and Guattari (1987), and expanded recently by Manuel DeLanda (2006), suit my experience of intra-action more precisely. Congealment emphasizes the contingent boundaries of any named thing. This is especially useful for thinking of things defined archaeologically as site, artifact, feature, as they exist only in intra-action with other things across both space and time.

Sarah Ahmed's *Queer Phenomenology* (2006) models the mode of this relationality. She links queer theory and phenomenology through the idea of "orientation," in which things become things through the sensory-spatial arrangement of near-ness or farness.

For Ahmed, orientation is a way to understand, "how bodies take shape through tending toward objects that are reachable, that are available within the bodily horizon" (Ahmed 2006, 2). Phenomenology from Merleau-Ponty and Husserl gives Ahmed a way to talk about orientation as, "how the bodily, the spatial, and the social *are entangled*…[and how] orientations are organized rather than casual…They shape what becomes socially as well as bodily given" (Ahmed 2006, 158). All experience is a matter of dealing with "what is at hand," but also of understanding your relationship to the directionality of your environment. Bodily experiences orient us towards objects and other experiences, while at the same time we experience our orientation through bodily experiences. The relationship is a two-way street: and bodies are directed in certain ways, and shape the world and objects in which they are oriented. Bodies and objects come into line through repeated gestures, habit, history, and so the orientation of bodies and things either fits (and is "in-line") or doesn't (and is "out-of-line"). This out-of-lineness, as it were, is where she locates queer phenomenology, an attention to the relationships of bodies "out-of-line" and the objects which orient them such. Orientation also reminds us that queer as a category relies on a relationship to phenomenal space; queer is "oriented" in a bodily way (Ahmed 2006, 165).

Central to this argument, queer politics is intimately bound up with the experience of orientation and *dis*orientation:

> Moments of disorientation are vital. They are bodily experiences that throw the world up, or throw the body from its ground. Disorientation as a bodily feeling can be unsettling, and it can shatter one's sense of confidence in the ground or one's belief that the ground on which we reside can support the actions that make a life feel livable. Such a feeling of shattering, or of being shattered, might persist and become crisis. Or the feeling itself might pass as the ground returns or as we return to the ground. The body might be reoriented if the hand the reaches out finds something to steady an action. Or the hand might reach out and find nothing and grasp instead the indeterminacy of air. The body losing its support might then be lost, undone, thrown (Ahmed 2006, 157).

Ahmed argues, "disorientation is unevenly distributed: some bodies more than other have their involvement in the world called into crisis" (Ahmed 2006, 159). Bodies which are queer, in the sense that they are "off-line," experience and produce disorientation. Compulsory orientation, like heterosexuality, like whiteness, like settler-colonialism, "is a mechanism for the reproduction of culture" (Ahmed 2006, 161).

Orientation and disorientation link bodily experience and fluid materiality while allowing for the kind of "eccentric positionality" that queer theories foreground (Warner 1991). Orientation is a material bodily capacity, but also a process, a shifting form attuned to the contingencies of life. That orientation has a "towards" and "away" allows for the existence of normative and nonnormative sensory experiences, without "othering" or otherwise creating a binary of experience.

Over, under, and through

In this orienting chapter, I have introduced my frameworks for thinking about engaged research. These include queer, feminist and Indigenous positions on knowledge production; key concepts in the development of socially-engaged research like community, collaboration, benefit, and sucess; and the over-arching goal of "praxis" for this kind of research. Due to the contemporary reality of doing historical research with, by, and for communities at the margins of mainstream narratives of place and identity, I also claim that creative practice (or art-making) has an important role to play in the execution of socially-engaged research, and so outline some of the extant interactions between anthropological archaeology and art. As case-studies, I present two projects, from very different contexts, that engage archaeological work as a practice of presencing what I have come to describe as "landscapes of inequality." Through these projects, I investigate the multi-temporal materiality of colonialism and capitalism in North America.

In "Chapter 2: An Archaeology of Home at the Albany Bulb," I present the concept of "home" as a material narrative at odds with assumptions about the experience of homelessness. Through qualitative and quantitative description, mapping, and photography, this Archaeology of the Albany Bulb documented the unique home-sites of people experiencing homelessness, whilst being "at home" in a land-fill-turned-park on the east shore of the San Francisco Bay in northern California. Using this documentation, I compare and contrast the evidence of home-making and care archaeological documentation asserts alongside the narratives of "the Bulb" included in city planning documents. In doing so, I suggest the utility of conventional archaeological recording as a tool for homeless advocacy. The stories that bricks and gardens tell speak out against the erasure of homeless histories in the urban landscape. Finally, I reflect on the work of creative presentations of this archive, and claim that they are a crucial element in the social engagement with the project.

In the following chapter, "Interlude," I take a brief detour to revisit the commonalities and differences of the two projects considered in this dissertation.

In Chapter 4, "Pluralistic Practice and a Genízaro Pueblo," I describe the history of "Genízaro," a term of identification for people living in El Pueblo de Abiquiú, and how it sets the context for developing engaged archaeological research. The term, Genízaro, originates in the Spanish Colonial *sistema de casta* (caste system) to describe Indigenous people who were captured or sold into servitude in Spanish homes, and subsequently adopted practices of normative Spanish life including language, religion, dress, and agriculture. While the term has been used variably over time, today it is at the center of heritage projects, as well as claims to

land and water. This chapter shows how the context of Genízaro heritage produces the particular "modes" of the Berkeley Abiquiú Collaborative Archaeology Project. And how, with Pueblo leadership, we have defined the goals of structures of accountability, collaborative process, meaningful products, and reinvestment in the Abiquiú Genízaro community.

Chapter 5, "Paying Attention to Abiquiú's Acequia Lands," is a walk on the ditch. I describe the social-material phenomenon of the *acequia*—both as an irrigation infrastructure and a social practice of resource sharing—and how it was used by Genízaro Abiquiúceños in the colonial period as well as in the present day. These features were the focus of my participation in archaeological research with the Berkeley-Abiquiú Collaborative Archaeology Project. I describe the means by which archaeological attention was used to answer questions about water use in the Pueblo's communally held range land, and to create a program of engaged research focused on accountability, collaborative process, meaningful products, and reinvestment (as described in Chapter 4).

Chapter 6, "Hydrosocial Congealments and Other Meanings," rounds out my reflection on collaborative research in Abiquiú. In this chapter, I bring together the contexts of Genízaro identity and acequia practice to suggest meanings produced by collaborative fieldwork and archaeological interpretation. I begin with a discussion of the concept from political ecology of "hydrosociality," and how it applies to the case of acequia practice in northern New Mexico generally and Abiquiú specifically. I argue that material attention to acequias provides a necessary dimension to models of hydrosociality which are temporally and spatially lacking. I describe evidence for historic acequias collected by the Berkeley Abiquiú Collaborative Archaeology Project, as well as the process by which we made them into conventional and creative narratives about water, history, and identity in Abiquiú through maps and hand-made "zines."

Finally, in Chapter 7 "Final Thoughts" I reflect on the thematic, methodological, and personal conclusions I have drawn from these two projects. I reflect on research with Landfillians at the Albany Bulb as a demonstration of homeless place- and home-making that challenges homogenizing stereotypes of people living outside. I also reflect on how research with Abiquiúceños in Abiquiú can revise notions of hydrosociality to include the enduring material traces of water, despite its absence in the present as a liquid. I further reflect on my conclusions that engaged research requires a creative, expanded tool kit and suggest that "research-creation" is an appropriate frame for thinking about how engaged research practice can achieve its most ambitious goals. I end with a reflection of the place of myself, the researcher in all this, and a provocation that the way forward for engaged, creative work like the projects I describe here, is thinking how its process can engender both greater equality, and materials that have the potential for meaning making without my, the academics, involvement.

Chapter 2: An Archaeology of Home at the Albany Bulb

The goal of this chapter is to present the Archaeology of the Albany Bulb Project as a politically informed practice of description. In doing so, I analyze the elements revealed through such performative description. These elements indicate practices of home-making which contextualize life on the bulb across many times and places in the East Bay. Finally, I explore how our creative archaeological engagement with these materials and descriptions are activities of presencing.

The Story

I want to tell a story. But I cannot begin telling a story about homelessness without acknowledging the context from which the phenomenon of displacement arises. I cannot begin without noting the similarities between past eras and the present—the continuation of a phenomenon. To do so, I will start with a few excerpts from an essay written by photographers Lewis Baltz and Anthony Hernandez in 1995. Almost 25 years ago, the essay accompanied Hernandez' *Landscapes for the Homeless* (1995), a series of photographs of encampments under Los Angeles' freeways:

> Californians have always taken a perverse pride in being the initiators of most of the pop-cult trends that swept the nation and sometimes the world…*Talis sum qualis eris*: I am what you will be. Homelessness, as a contemporary, industrial scale phenomenon probably began in California in the late sixties when then-governor Reagan closed the state mental institutions…
>
> Even the word *homeless* as a noun is recent…*The Homeless*, neither voters nor consumers, disenfranchised and without economic subjecthood, have rather suddenly become a permanent fixture in America's ossifying caste system. Like Iraqi civilian casualties in the Gulf War, their precise number is elusive. Let's say they are many. Very many. **That term, "The Homeless" as if they were an organized group, a group with rights, a group you belonged to.**
>
> If one weren't implicated in the commonplaceness of their existence, that is, if the homeless weren't such a present feature on the social horizon, one might find the distance to inquire as to why such a class exists at all in the United States. One might ask what sort of poor, shitty country it is that has so little self-respect as to allow its citizens to sleep in doorways and beg for food. Questions like this don't get you very far. It's a matter of priorities. That's how it is. It's a free country. Both the rich and the poor have the right to sleep under bridges.
>
> Why don't they just go away?…**They're already away. They're "home." They've been "evicted," a word which, unlike "homeless," speaks volumes**…

> In this country it's hard to reconcile the larger segment of society, which is so ordinary and which would just like the homeless to disappear, with the greatness of the country. They're reminded that however "great" this country is, the homeless stand for the failure to face the future. Maybe forever homeless is the future. Maybe. *Talis sum qualis eris*" (Hernandez, Weski, and Sprengel-Museum. 1995, 151–53).

This characterization of homelessness in the US accompanies photographs that Hernandez took in 1988-1991. What is striking about both this essay and Hernandez's photographs of homeless places is that they don't appear to romanticize, spectacularize, or exploit the inhabitants. This is not simply because the names, bodies, and faces of inhabitants don't appear. The power of these images lies in how they reveal the everyday-ness and humanity of living outside in the city. They reveal this through sensitivity, a particular kind of attention to humanity through material things. We are reminded in the text that homelessness is a historic phenomenon as well as an embodied experience, and, above all, a surreal injustice that is continuously and systematically erased.

I am struck by the way Hernandez's images resonate with the approach I took developing an Archaeology of the Albany Bulb. Likewise, the Archaeology of the Albany Bulb is a project of attention to a place in my community where people have been both *at home* and *evicted* in the last handful of years.

Albany Bulb began as a dump. Its unique "neck" and "bulb" topography is the result of the City of Albany dumping construction debris into the San Francisco Bay from 1963 to 1983. When the dump was decommissioned, the site became public open-space. People quickly discovered the joy of the Bulb's views (looking west onto the San Francisco Bay and Golden Gate Bridge) and the richness of its bedrock—a rich substrate of the materials of past homes and buildings: rebar, brick, concrete, stone. Since the mid 1980s, Albany Bulb has been a site of creative existence and resistance to the forces of displacement in the San Francisco Bay Area.

Dog-walkers, lovers, artists, ravers, and trippers found themselves amidst a landscape of familiar materials out of place. Eventually, some of these people built homes and public spaces, including an amphitheater and library, alongside a constantly evolving artistic landscape of painting, graffiti, found-object sculpture, humor, politics, and mysticism. By 2014, more than seventy people lived, more or less, full time on the Bulb. And, over nearly 30 years of occupation, people camped and lived for days, weeks, months, and years at a time.

In 1995, the City of Albany proposed integrating Albany Bulb into Eastshore Regional State Park. As part of the decades-long land transfer, the city initiated aggressive legal action to remove all residents of the Bulb in 2013. Police began enforcing a preexisting no camping ordinance and removing the Bulb's homeless encampments. After multiple protests and a lawsuit, the city offered a $3,000 per resident settlement in exchange for dismantling and evacuating their homes, along with residents' agreeing to a one year stay-away order. Some residents took this deal while others fought their eviction. Ultimately, by summer of 2014 all former residents of the Bulb had moved on, taking as many of their belongings with them as was possible. The Bulb has since been "cleaned-up" in the model of a more normative city park.

Shortly after the 2014 eviction, a team of undergraduate volunteers and I consulted with former residents to document the traces of their history across this unique landscape. We made maps and images of the Bulb that engaged the relationship between archaeological authority, public space, and the right to be remembered in the context of homeless disenfranchisement.

By using the exacting detail of archaeological recording, our visual representations of "landfillian" homes challenge the stereotypes and institutional devaluation of people living outside. Our Archaeology of the Albany Bulb is an archaeology of homelessness by social convention only. The materiality of the spaces the residents constructed to capitalize on the unregulated nature of the Bulb and its bedrock of construction materials, clearly demonstrate the habitual actions, the "pattern of regular doings" that indicate dwelling at home (Douglas 1991). House-yard plants, meticulously tiled living spaces, and mattress-shaped clearings attest to the residents' daily practices of care and homemaking on the Bulb. In contrast to the stereotyped image of people experiencing homelessness as a state of un-rooted displacement, the archaeology we undertook materially demonstrates what Bulb residents and the people close to them already knew: while they were "experiencing homelessness" in the eyes of the law and housed community of Albany, residents were very much at home at the Bulb.

Here, I would like to tell a story about this place called the Albany Bulb. The story is not my own, however, and so I will tell it as I have come to know it, through a deep attention to things, and through the glimpses of life that I have been told by others. I aspire to Trinh Minh-ha's idea of "speaking nearby"; where voices are absent, I hope my telling opens up (rather than fills in) a space for them (Chen 1992).

Through this story, I will also introduce the idea of an archaeology of the contemporary, a practice which harnesses the observable traces of the recent past to make the familiar unfamiliar and to address the material realities of contemporary life.

Home, or Where the Heart Is

One of the most important stories of the Albany Bulb is a story of homes. There are others, of course, of land and sea, of morphing urban fabric and shoreline, but at its core the Albany bulb is built of homes.

> Home is "here" or it is "not here." The question is not How nor Who? Nor When? But *where* is your home? Home is located in space but it is not necessarily a fixed space. It does not need bricks and mortar, it can be a wagon, a caravan, a boat, or a tent (Douglas 1991, 289).

So wrote British anthropologist, Mary Douglas wrote in her pathbreaking study of taboo, "dirt is matter out of place" (Douglas 2002). Elsewhere she described home as, "a pattern of regular doings," emphasizing the process that makes home (Douglas 1991). That home is not really *where* the heart *is*, it is *where* the heart *does*—where it does the kinds of forgettable things that create the worn-down spots that make a house a home: Snoozing the alarm, brushing our teeth, leaving for work, school, the store, caring for our pets, our children, our partners, and friends, reading and chatting and showering and thinking and fighting and making dinner.

We evaluate others' houses based on what kind of "homes" we think they might be and what kind of people might dwell within them. Our values and our assumptions about the "right" and "wrong" way to live are wrapped up in what we say counts as a house or a home.

Experiencing Homelessness

…as a Historical Phenomenon

The history of homelessness in the United States reaches back centuries. In the 19th century, the phenomenon of "vagrancy" or "wandering" appeared, while the mid-1800s saw the word "home" emerge as a term for the (extremely gendered) normative domestic realm (Bloom 2005, 909; Hareven 1991; Wilkie 2010). During this time, the concept of being home*less* gradually became attached to a range of non-normative lifestyles that varied widely in terms of permanent shelter, employment, and inclusion in a family unit. These ways of being underwent various transformations over time, particularly in reaction to major world and economic events (Kusmer 2002). The term has remained in flux through the contemporary period as people continue to work out the relative importance of permanent shelter and connection to the domestic unit as the main characteristics of being housed or being homelessness (Bloom 2005, 908). The result of this history is a close but shifting relationship between the idea of homelessness as a moral failing (as defined by lack of a domestic family unit) and an economic one (as defined by the lack of employment or ability to pay rent). This also makes the definition of homelessness both representative of a state of being in relationships (part of a "family" or not) as well as a physical presencing in the material world (inside or outside).

Early "down and out" homelessness, sometimes called the "old homelessness," encompasses lifestyles of shelter without domestic "homes." This includes "tramp and hobo" travelers between the 1870s through 1930s, and jobless men renting rooms in SROs on Skid Row through the 1970s (Cresswell 2001 in Bloom 2005; Groth 1994). This contrasts with the post-1970s, "new homelessness," in which those experiencing homelessness are actually without shelter, living on the streets and in and out of shelters (Lee, Tyler, and Wright 2010). Historian, Alan Bloom (2005), however, warns against the lumping of all non-contemporary experience into a catchall term like "old," by pointing out the variety of experiences and crossover between old and new homelessnesses, such as the increase of women and children included in the population, the size of the population, and more. While quite a few scholars have engaged with the phenomenon of the "tramp" and "hobo" (Cresswell 2001; Higbie 2003), fewer have addressed the wider range of historical homelessness, especially the experience of women and children throughout time (see Border 2002). This paucity of research, and the internal debate about "old" and "new," suggests an important element in the historical experience of homelessness—its dynamism.

I position the Albany Bulb residences as a part of these larger trends in the historical flux of homelessness and strategies for non-normative dwelling. The variety of historical practices of dwelling, while considered "homeless," makes research at the Albany Bulb an opportunity to explore these unique instances of creative practices of home-making and care, rather than an attempt to define or typologize homeless lifeways. In fact, my conclusion that homes at the Albany Bulb makes labeling their residents "homeless" impossible. The Archaeology of the Albany Bulb a case-study in thinking through the materiality of homeless encampments. I am careful not to over-determine our ability to transport Landfillian experience too far across space and time.

… as Space and Place

The existing historical narrative of lifeways we now call homelessness suggests I consider social scientific research of contemporary experiences of homelessness as an endeavor

of investigating variety, rather than defining a fixed state, though that has not always been the approach taken. The contemporary phenomenon of homelessness as described in social science scholarship takes place in a number of different spatial configurations including shelters, encampments, "transience," and urban and rural settings. Sociology has focused on homelessness as a public health problem on the streets and in shelters (Barak 1991; Lee, Tyler, and Wright 2010; Rossi 1989; Shlay and Rossi 1992), with a recent interest in encampments (Herring 2014). Sociology has additionally focused on the various demographic and health factors that contribute to homelessness as a way to describe homeless as a condition, and to identify barriers to the "rehabilitation" of homeless populations. Geography, understandably, has a more spatial focus, with a special eye toward the use of public space, overlapping with public health concerns and a focus on identifying the contingent factors of the growth of homelessness in the US (Sheehan 2010; Speer 2014).

Anthropology, by contrast, has focused on creating rich, descriptive accounts of the experience of homelessness in a way that sociology and geography have only recently taken up, as well as applied studies aimed at intervening in public policy and public health that can mirror sociological aims (Baldwin 2017; Koegel 1992). Anthropological approaches to studying homelessness bring a range of frameworks including linguistics, medical anthropology, critical race theory, and phenomenology to examine the experience of homelessness in specific contexts (Glasser and Bridgman 1999; Hopper 2003).

Teresa Gowan provides an account of how the language used about homelessness impacts personal experiences of homelessness and how they navigate a range of public and private services to "get off the street" (Gowan 2010). She defines the conceptual frameworks people experiencing homelessness encounter and take on: "sin talk" suggests that homelessness is a moral failing caused by previous or ongoing immoral behavior that can be cleansed or atoned for; "sick talk" frames homelessness as the result of illness, especially mental illness and addiction, which medical treatment can cure; finally, "system talk" frames homelessness as the result of systemic racism, classism, and other inequalities that produce conditions in which certain people are doomed to fail (Gowan 2010). This framing helps underscore the variety of experiences of homelessness in the contemporary moment as much as the historical one. Thinking of the residents of the Albany Bulb inhabiting these different linguistic/conceptual spaces reminds me to always consider the material traces of home in conversation with the presumed "root" of the homeless problem.

In *Righteous Dopefiend,* anthropologists Jeff Schonberg and Philippe Bourgois (2009) produced a collaborative, creative ethnography of homeless heroin users from a medical anthropological perspective to experience and reflect on drug use within homeless experience. Their use of photographs interwoven with ethnographic observation reflects on the complexities and pathos of the experience of homelessness. This work joins creative projects like those of Anthony Hernandez (discussed above) to underscore the emotional challenges of representing homelessness, as well as the emotional realities of being homeless. Anthropologist, Robert Desjarlais, writes in his ethnography of a homeless shelter in Seattle that typically, "one knows the homeless not by talking with them but by seeing them" (Desjarlais 1997, 2). He shares a story of the NYPD arresting ten people in the subway one winter in the 1990s for "*appearing* homeless" (Desjarlais 1997, 3). He offers what he calls "a sensuous" ethnographic account in the hopes of tempering the superficial treatment of people experiencing homeless through stereotypes and judgement. Rather than merely vilifying the practice of looking, his caution reinforces the necessity for a rigorous attention when looking. The emphasis on representation in

these works inspires my research at the Albany Bulb to take seriously the images produced to translate human experience into archaeological documentation.

Archaeology is conceived as a visual practice, though, ultimately, it is a multi-sensorial one (see Hamilakis 2013; Howes and Classen 2014; Tringham and Danis 2019). At the Albany Bulb, I harnessed the practices of looking in order to know more sensitively the realities of homelessness. Employing archeological attention also reinforces the power of representations of people experiencing homelessness. Desjarlais writes, "to describe someone as 'homeless' announces a lasting identity…Homelessness denotes a temporary lack of housing, but connotes a more lasting career" (Desjarlais 1997, 2). In considering the materiality of such a state, which is so often ascribed an identity, the Archaeology of the Albany bulb is an attempt to use the conventional methods of archaeological attention—systematic survey, written, drawn, and photographic documentation—in order to complicate the narratives that circulate about a group of displaced, disenfranchised people.

Sociology, anthropology, and history generally organize the experience of homelessness along lines of gender, race, and mental state (that is, men in shelters, women and children of color, male drug users, youth, etc.). Ostensibly, these different identities are presumed to denote differing causes and levels of vulnerability. Within this dissertation, I am not dealing with these divisions explicitly. Yet, my research does suggest it is important to note that the residents at the Bulb inhabited a range of identities. Even as I lump them together based on their dwelling in proximity to each other, their situations varied markedly across these lines as well.

Research in sociology, geography, and anthropology has addressed the impact of different spatial states on the experience of homelessness, and as part of public policy regarding services and programs to address homelessness as a "social issue" (Herring 2014; 2015; Sheehan 2010; Speer 2014; Wright 1997). Encampments occupy a particular place in this field as a site diametrically opposed to shelters. They are a strategy of people experiencing homelessness without access to other resources, and are a more stable location where researchers can interact with a range of people. This opposition has been taken up particularly by archaeologists (discussed in more detail below) who note an opening for expanding scholarship to include experience of those "sleeping rough" or in non-shelter housing.

Geographically, most clearly related to this project, sociologist Christopher Herring undertook an interdisciplinary investigation of encampments on the west coast of the US. Historically, he locates encampments developing during the economic struggles of the late 19th and early 20th centuries, linking them directly to the urban impact of industrialization. Encampments ostensibly disappear during and after World War II, only to reappear in the 1980s, linked to President Reagan's cuts to social services. Most recently, Herring claims, "encampments were set up after laws banning sitting or lying on sidewalks or camping in public parks" (Herring 2015). He found that encampments are more often the likely result of urban policy (such as Laws and ordinances) and not economic downturns (Herring 2014). He identifies four "distinctive socio-spatial functions" of the camps he surveyed on the west coast of the United States: co-optation, contestation, accommodation, and toleration. Each function encompasses administrative strategies by law enforcement along with local and federal government, as well as adaptive strategies developed by the people experiencing homelessness within them.

Toleration is the most similar to the socio-spatial function of homes at the Albany Bulb—though I will advance the argument in this chapter that the community there did not fit existing categories of homeless experience. The administrative strategies of toleration include the

sanctioning of encampments by lack of law enforcement (as opposed to changes to the law itself), which can reduce law enforcement costs and move complaints from higher traffic areas, as well as a claim that it increases social welfare (Herring 2015). The adaptive strategies of tolerated encampments for people experiencing homelessness include the increased stability of a less mobile community, proximity to or movement of services towards encampments, and the self-organizing of landscapes into neighborhoods around social subdivisions (Herring 2015). At different times these strategies have held true for those living at the Albany Bulb, and the material investigation of homes there suggests many of the practices of home-making encouraged in a tolerant encampment where increased stability produces conditions for long-term habitation. The Bulb, however, because of its extreme isolation from the surrounding neighborhood and unique landscape (discussed below) is an extreme case of this, causing me to analyze archaeological material as part of a grounded experience of home-making, however precarious, rather than as the experience home*less*ness.

… as Archaeologies

Conventional language and the City of Albany call the people who lived at the Bulb "homeless." As such, the work we undertook to document the material traces of their dismantled homes can be called an archaeology of homelessness. However, the home-y-ness of life at the Bulb challenges a simple association between a lack of a city-issued address and lack of a "home." I situate my engagement at the Albany Bulb alongside a small, evolving collection of projects calling themselves, indeed, "the archaeology of homelessness," because I share the goal of developing socially meaningful archaeologies that challenge non-homeless assumptions about the experience of people identified as homeless (Albertson 2009; Buchli and Lucas 2001; Harrison 2013; Kiddey 2014a; 2014b; 2016; 2017a; 2017b; 2017c; Kiddey et al. 2015; Kiddey and Graves-Brown 2015; Kiddey and Schofield 2011; McCarthy 2017; Schofield 2014; Singleton 2017; Zimmerman 2016; Zimmerman, Singleton, and Welch 2010; Zimmerman and Welch 2006; 2011). In the past two decades, focus within this area has grown from preliminary accounts that recognized the valid materiality of people experiencing homelessness to an engaged, interdisciplinary endeavor that sees archaeology as a potentially powerful force in both therapeutic and policy venues associated with homeless issues (see especially Kiddey 2017b). Here, I outline this development in order to set my own endeavors in relief.

Archaeological engagement with homelessness intersects with historical archaeologists' research on hobo encampments, temporary or mobile tent cities, and poverty associated with late 19th and early 20th century industrialization, post WWI economies, and the great depression (Barker and Lamb 2009; Baugher 2001; Grey 2011; Orser 2011; Rimmer et al. 2011; Spencer-Wood and Christopher N. Matthews 2011; Turner and Young 2007; Van Bueren 2002; Walker 2017). This intersection supports the historical argument that modern homelessness is connected to previous social phenomena of transience. Historical archaeological approaches to poverty, transience, and encampment tend to center on labor, though are joined with archaeologies of homelessness that link to social activism and recognition of inequality. Alongside these interests in historical archaeology, investigations of contemporary homelessness grow also from the calls for an "archaeology of the contemporary" (Buchli, Lucas, and Cox 2001; Graves-Brown, Harrison, and Piccini 2013; Harrison and Schofield 2010). This movement called (and continues to call) for attending to materialities of the recent past and the present using the tools and attentions of the archaeologist.

In their influential volume synthesizing the emergence of archaeologies of the contemporary past, Buchli and Lucas (2001) include a chapter titled, "The Archaeology of Alienation: A late twentieth-century British Council Flat." The conclusions of their survey of a government subsidized apartment are largely explanatory. The results make straightforward claims about the nature of a woman who abandoned her house from the things she left behind, and Buchli and Lucas link them conceptually to contemporary issues in housing insecurity and public assistance. This shares little in common with more recent archaeologies focused on the relationship between housing and homelessness, but represents an early intimation that archaeology can contribute to understandings of the contemporary complexities of home and homelessness.

Inspired by their initial work, a few years later Rodney Harrison (2009) adumbrated the possibility of an archeology of the welfare state. He did this by mapping locations of public housing, charting change in urban fabric, analyzing the design of each estate and local services as well as individual estates and homeless spaces through photography, interviews, and mapping for material evidence of acceptance and resistance of state power (Harrison 2009, 249–51). Through an archaeological approach to the contemporary, he claims, we would be able to see how state ideologies are manifest in public housing infrastructure (Harrison 2009, 239). This draws on the goals of urban design and public policy, but as far as I know it was never executed.

In 2007, Harry Zimmerman and Jessica Welch began investigating the materiality of homeless sites in the United states. Their study of homeless sites in Indianapolis grew out of Zimmerman's documentation of homeless sleeping quarters during excavations at a 19th century mansion in St. Paul, Minnesota (Zimmerman and Welch 2006, 54). Zimmerman and Welch initially propose the value of such an investigation as linking with archaeological research on "mobile foragers"—a link which Zimmerman later discounts (2011)—and suggest that the major insight of their preliminary survey is that homeless material demonstrates distinct patterning. The first instantiation of this project focused on the classification of sites (route, short-term, and camp) in order to gain an understanding of the range of homeless materialities. (This mirrors other trends in archaeological interest when faced with a new material type, like sensory experience, for example (Tringham and Danis 2019). Early publication of this kind of research is focused on justifying the implementation of archeological tools on new materials.) Zimmerman and Welch's research design limited contact with people whose belongings were documented to keep the research centered on "unbiased" interpretation of material culture (Zimmerman 2016, 343). I argue that this choice instead reveals the bias of a narrative that says people experiencing homelessness themselves cannot be trusted—a top-down kind of advocacy—however well intentioned. Zimmerman and Welch's initial work, though engaged in the local community with an intention to make a positive contribution to the homeless "problem" in Indianapolis, did not include any ethnographic or otherwise intimate investment with the people whose material they investigated until later phases (Zimmerman 2016; Zimmerman, Singleton, and Welch 2010).

This developing approach to homelessness demonstrates the power of revision through engagement. By 2010, their project expanded to address some of these issues and oriented itself with the hope of creating data that could influence public policy by documenting life away from shelters, of which comparatively little is described. This includes a shift towards including ethnographic components and thinking of the work as a "counter-narrative that is supported by data derived systematically, not anecdotally" (Zimmerman, Welch and Singleton 2016, 269). Singleton continues to approach this archaeological investigation of homeless encampments as an opportunity to reframe the definition of home in public policy language and expand material

understandings of how home can be built and encountered (Singleton 2017). These later publications are a more effective representation of the kind of work archaeologies of homelessness can undertake. It reveals the evolution in thinking about archaeologies of homelessness from an archaeological exercise, primarily meant to reveal issues and aspects of archaeological thinking, to broadly anthropological research projects with an ethical commitment to real people.

Around the same time, Rachael Kiddey and John Schofield (2011) began executing archaeological work *with*, rather than strictly about, people experiencing homelessness. They used official "heritage" narratives as platforms for homeless narratives, archaeological attention as an opportunity to value alternative lifestyles, and collaborative participatory research as an opportunity to directly benefit the local and homeless community. At Turbo Island, in Bristol, UK, this research attempts to "truly engage homeless people who wanted to participate in an 'archaeology of themselves'…understand the material culture of homelessness, and connect [the] study with official views of heritage" (Kiddey and Schofield 2011, 5). By contrast to work in the US at the same time, Kiddey and Schofield consider archaeological research to be a way to recognize homeless people through what matters to them (material culture) rather than as objects of study in themselves (via sociology and anthropology, for instance) (Kiddey and Schofield 2011). Inspired by critical heritage work, Schofield describes the homeless people with whom he worked as "colleagues," setting the collaboration as the foundation to achieve "praxis" (2014).

In the first book length treatment of an archaeology of homelessness, Rachael Kiddey continues this and her thesis work (2014) to make a compelling argument for the therapeutic and community-building results of an activist archaeology of homelessness. This work relies on the direct engagement of people experiencing homeless as archaeological colleagues (rather than subjects), investigating material culture of homelessness are heritage. She connects work in Bristol and York over nearly a decade of fieldwork to demonstrate how archaeology can be socially useful to people experiencing homelessness (Kiddey and Graves-Brown 2015, 2016, 2017a, 2017b). The emancipatory effects rightly focus on the homeless population, but hers and other projects also note the impact of archaeologies of homelessness on the "housed" population as defying stereotypes and asserting the uniqueness invisible members of the communities.

Kiddey's work grows out of collaboration with her homeless colleagues as much as with John Schofield. It represents an attempt to produce truly collaborative, socially engaged archaeology, by using multiple methods of investigation that include excavation of homeless places linking present experiences to past histories, collaboration that continues through all stages of research from development through dissemination, "counter-mapping" ethnographic walks that involve drawing and photography, interactive public exhibition in local sites, joint academic presentation with homeless colleagues, and a co-authored scholarly comic. The variety of these methods demonstrates the complexity of researching homelessness as an archaeologist and represents clear innovation in thinking from earlier cataloguing of homeless material. Kiddey and colleagues draw on anthropological ethics, theories of collaborative practice, and activist research. Conclusions from this research claim primarily that (when done holistically) participation in archaeological research had a positive impact on her homeless colleagues (see Danis 2019).

Other recent work is gradually expanding the scope of this kind of research. For example, Kellie Pollard has included analysis of contemporary "long-grass" homeless sites in her research on the interaction between Indigenous and colonial people at "fringe camps" in Australia; while Christine McCarthy has blended historical approaches with an argument for thinking of Maori

homelessness as the result of "difficult intangible English heritage" (McCarthy 2017; Pollard, Smith, and Ralph 2017). Kiddey and Dan Hicks are also now bringing this perspective to European refugee and migrant camps in their, "Architectures of Displacement—Refugee Studies Centre" (Hicks and Mallet 2019).

While these more recent projects involve a range of methods drawing from ethnography, sociology, geography, and occasionally creative arts, documentation is primary to the performance of archaeological work. Common among all these homeless archaeologies is a belief that archaeological recording creates counter-narratives, forms of documentation, and storytelling that revise popular or authorized narratives of homelessness. Kiddey and Graves-Brown write, "Because archaeologists always begin with material culture…things associated with, for example, homeless persons or migrant persons, which are usually rendered invisible through systemic disregard for their material culture become 'lit up'" (2015, 136). Archaeological investigation of homeless sites benefit from engaging explicitly the representations produced by archaeological research and how they circulate in both homeless and housed communities. But common also to all these projects is that while interdisciplinary methods have been executed, archaeological research on homelessness has yet to produce effective activism on a large scale (Harrison 2013). The re-humanizing aspects of archaeological documentation needs to be drawn out and presented in broader contexts in order to close the distance between research and praxis.

It is amidst this development of an archaeological approach to homelessness in the US and UK that I began my work at the Albany Bulb. I had the benefit of some early calls for engagement with contemporary social issues, but undertook fieldwork before the publication of the more substantial and interdisciplinary studies by Zimmerman and Welch, and Kiddey and Schofield. I consider the Archaeology of the Albany Bulb inspired by these works, despite the limited pre-planning and fieldwork with former residents I executed. Work with the archive since fieldwork has been an attempt to realize some of the interdisciplinary and humanistic goals expressed by these other projects—such as producing therapeutic experiences and humanizing counter-narratives, through creative post-field work interventions with maps, reporting, and the photo archive. My work with an Archaeology of the Albany Bulb was inspired by the provocation that archaeology has political power through representation and aspires to be a "socially useful" endeavor (Dawdy 2009).The specific constraints and design of my work limit the level of collaboration and engagement, but I attempt to salvage the political utility of the research through creative expression.

At the Albany Bulb, I also built off of these projects through an intimate attention to material culture patterning as a way to take seriously the humanity of the people who lived there. I combine this level of detail with an ethnographic sensibility of landscape scale experience, and a desire to produce data/representations that are of use to advocacy and policy groups. My addition of artistic, creative representation helps me move the work beyond anonymous descriptions of material, to re-insert former residents histories into a landscape which still exists as a public place and directly intervene (however late) into political debates about the rights of people experiencing homeless to land and home.

Modes: the Bulb as a landform, landfill and public-private space

In one sense, current research on homelessness in the social sciences is the context through which I encounter the Albany Bulb in this work. But in another sense, it is a later

addition, a coating or shell, I have placed around my embodied experiences with the place as the locations of homes, a public park, a landfill, and a piece of the San Francisco Bay. These embodied experiences are congealed around aspects of the Bulb as a place (Creswell 2004). I think of these other aspects as the "modes": a musical term that denotes "any of several ways of ordering the notes of a scale…a theoretical framework for the melody. A mode is the vocabulary of a melody; it specifies which notes can be used and indicates which have special importance" (Kolinski 2010). This is a metaphor for the way each aspect of the Bulb comes together to form certain meaningful intensities, none of which are outside the totality of the congealment of forces that I encounter.

In this section, I explore the Albany Bulb as a congealment of social and historical elements upon and through which I have placed my archaeological attention. This includes (though, of course, exceeds) thinking of the history of the place called the Albany Bulb—as landform, landfill, public and private space, and site of political engagement and controversy around the issue of homelessness. In what follows, I describe the history of the Albany Bulb through material, social, and political lenses. I describe the topology, uses, and futures of the place. Ultimately, I use state, regional, and city planning documents and reports, alongside journalistic and documentary accounts, to set up the context in which I undertook the Archaeology of the Albany Bulb, and to show how the material conditions of life at the Bulb relate to the history of homelessness mapped above. Analyzing these documents critically demonstrates the genre of authority and the value propositions of city development projects in which my archaeological description attempts to intervene.

Landform, Landfill

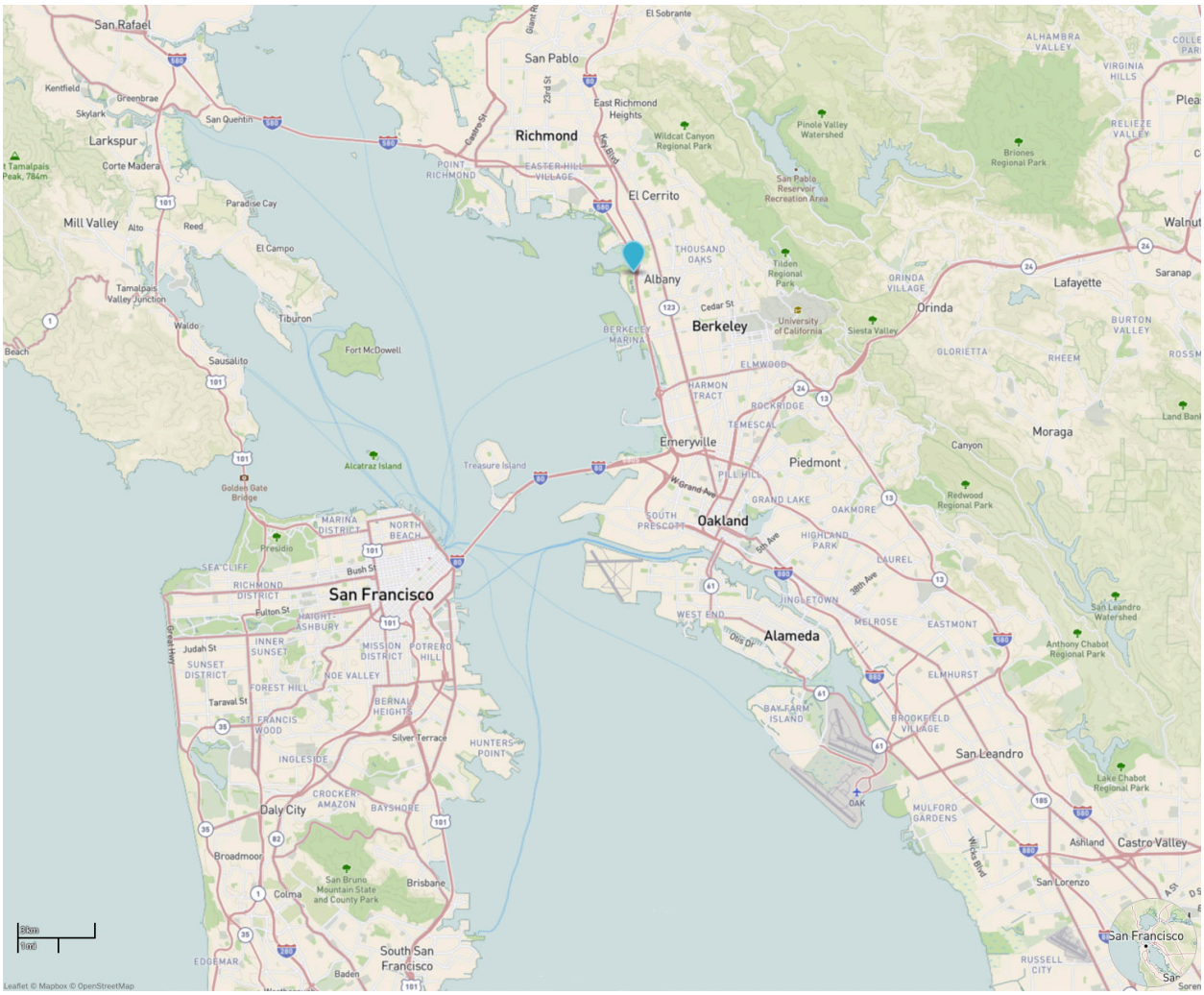


Figure 2.1 Map showing wider San Francisco Bay Area with Albany Bulb indicated by blue placemark. (image credit: Open Street Maps 2020)

The Albany Bulb is a penisular landform between Point Isabel and the Golden Gate Fields racetrack on the city of Albany bay shore (see fig. 2.1). The Bulb is so called because of the dramatic "neck" and "bulb" topography that was made possible by the practice of "infill" along the bay shore as early as 1939 (Moffat 2006, see fig. 2.2). The construction of the right-of-way for the nearby Santa Fe railroad and the clearing of land for the Golden Gate racetrack to the south left piles of rubble with nowhere to go in the late 1930s and 1940s, and filling around the racetrack and plateau was completed as early as the 1950s (California Regional Water Quality Control Board San Francisco Bay Region 1998; Questa Engineering Corporation 2012). In 1963, the city of Albany awarded a contract to the Albany Landfill Company to oversee the official disposal of construction debris as infill into the salt marshes beyond the race track (California Regional Water Quality Control Board San Francisco Bay Region 1999).

This contract ushered in two decades of ordered dumping of material from routine demolitions, as well as more significant clearing of the Bay Area Rapid Transit (BART) right-of-way through Albany and surrounding East Bay communities (Whitson 2014). The most active dumping occurred in the 1970s and, prior to 1975, some non-hazardous solid waste was accepted, reportedly consisting mostly of wood and vegetable solid wastes from landscape maintenance and street sweepings. Dumping ceased in December 1983 and the landfill was officially closed in 1984 as part of work with Regional Water Quality Control Board to improve the quality of the bay and its shore (California Regional Water Quality Control Board San Francisco Bay Region 1998). A total of approximately 2,000,000 cubic yards of waste have been placed in the landfill, with an average depth of 40 feet (California Regional Water Quality Control Board San Francisco Bay Region 1999; Wallace Roberts & Todd, LLC 2015).

The place now called the Albany Bulb is an artifact. Its topography is a result of patterned human activity, primarily dumping, but also by associated building and demolition, urban planning and urban renewal, industry and infrastructure. Ironically, the city itself was incorporated in 1908 as a way to prevent the City of Berkeley from dumping garbage into the slough next to Fleming Point just south of what is now the Bulb (Webb 1983 in Moffat 2006, 34). The founding of Albany after an influx of residents following the 1906 San Francisco earthquake shifted the orientation of the industrial town to an urbanizing city with a declining waterfront. The city was further separated from the shore by the creation of the East Shore Highway, which became the East Shore Freeway/Interstate 80 in the 1950s (Moffat 2006, 35–36). The remains of all these human activities come together in the very ground one walks on as a visitor to the Albany Bulb and, perhaps even more intimately, as a resident there.

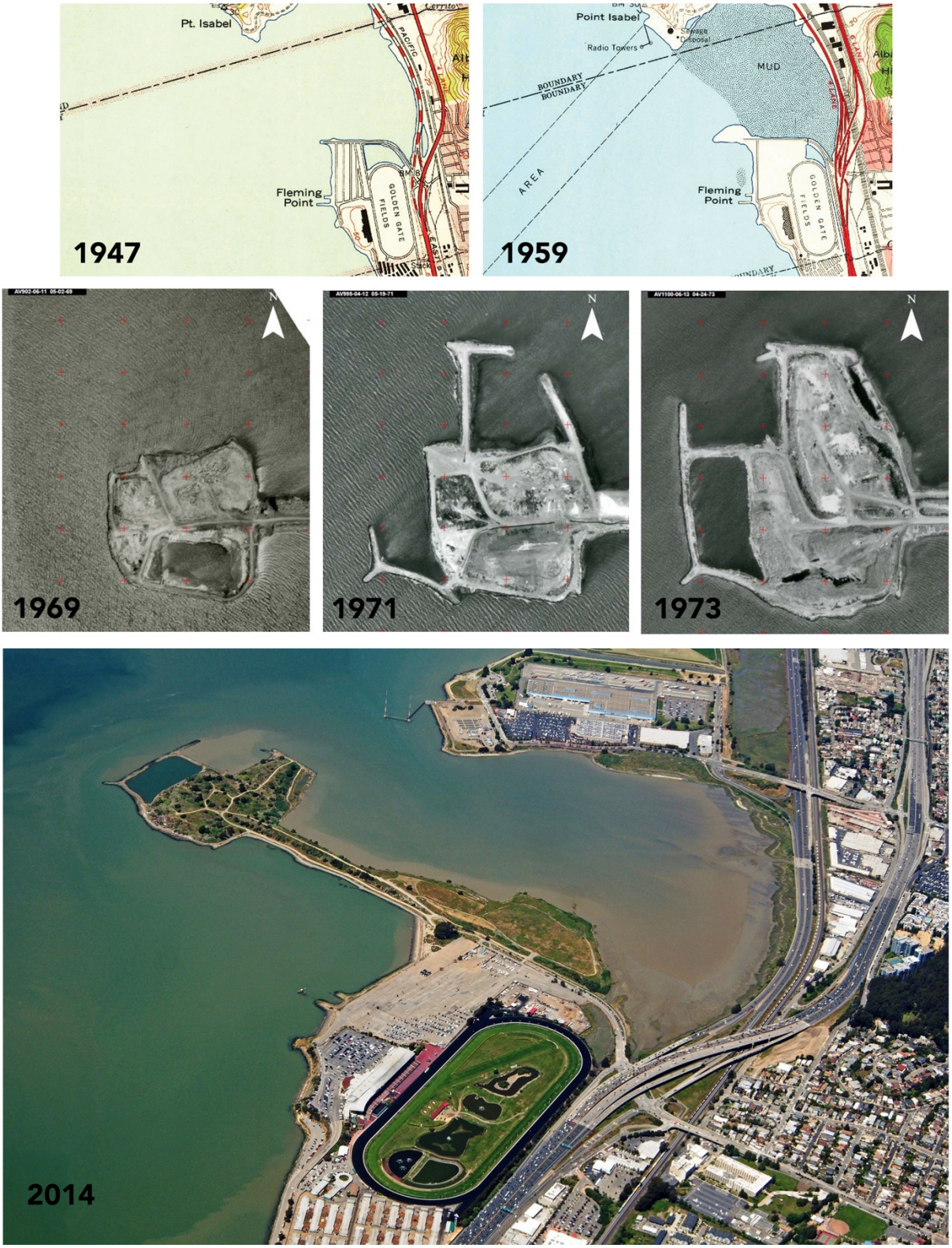


Figure 2.2 United States Geologic Survey topographic maps show the gradual extension of the shoreline by the Golden Gate Fields racetrack prior to the opening of the Albany Dump (top). Aerial photographs from the active years of the landfill show how sections of the "bulb" developed (middle). Today, the bulb is a notable green spot from the sky but hides many uses and histories (bottom). (Image credits: USGS, Existing Conditions Memo, Chris Treadwell)

Public-Private Space

Once the dump at the Albany Bulb was decommissioned, the site became largely unregulated public space (Thompson 1999). Sources are unclear about what measures were taken during this conversion—it is possible some small amount of dirt was placed over the landfill, though not enough to completely cover protrusions of dumped material. People from all over the East Bay discovered the joys of the Bulb's view and the riches of its "bedrock": that is, the materials of past buildings such as rebar, brick, concrete, stone. Dog-walkers, lovers, artists, ravers, and trippers found a place amidst the landscape of familiar materials out of place, including the same non-native plant species found in local gardens, from the yard clippings that were mixed in with construction debris (see Moffat 2006 for general overview as of 2006; see Thompson 1999 for early '90s overview). Many people began visiting the bulb in the late 1980s and early 1990s for recreation, but some of them stayed. Some people started calling the place home (McCabe and Rozen 2003).

A community of people experiencing homelessness on the Bulb grew, encouraged by the lax policing of the City of Albany's no camping ordinance and the wealth of raw building materials underfoot. Homes and public spaces, like an amphitheater and library, sprouted up alongside an active artistic landscape of painting and graffiti, found-object sculpture, humor, politics, and mysticism. It is not clear to me when people started living at the Bulb, or even when it was opened to general use as a public park—but by 1999 there were enough people living there to warrant the installation of a temporary trailer shelter and invest city resources in kicking people out (*CBS San Francisco and Bay City News Service* 2014; McCabe and Rozen 2003; C. Thompson 1999). This first eviction didn't hold, and by most accounts by 2013 somewhere between 60 and 70 people lived on the bulb. Over the years of occupation there, people camped and lived for days, weeks, months, and years at a time. A handful of long-term residents hunkered down for up to ten to fifteen years (Burlison 2015; Jones 2014; Levin 2014; Makovkin 2014; Moffat 2018, 2; Rufus 2014).

Documentaries, newspaper articles, and oral history projects describe "landfillinans'" range of backgrounds and circumstances (Burlison 2015; Jones 2014; Makovkin 2014; McCabe and Rozen 2003; Smith 2014). Some people considered their life at the bulb a choice, while some narrated traumas and tragedies that found them in unconventional housing. Many, regardless of situation, joined a creative community at the Bulb, spending time building their homes and art work among the rubble of Albany's urbanization. Homes at the Bulb ranged from simple tent or tarp campsites to elaborate ever-changing constructions: a multi-story, wood-framed bay-view mansion belonging to "boxer bob" (see Teicher 2014 for a photo-essay about his home); a complex "hobbit hole" built amongst the roots of a tree; Amber's place with a series of different living spaces adorned with historic architectural ornaments scavenged from the Bulb itself; Stephanie's tranquil, neat overlook with a carefully tended garden; Mama-bear's place just above the amphitheater, where a salon-like atmosphere could take over at any moment; any number of tents in the wide open field at the center of the Bulb.

Figure 2.3 Caption: Amber Whiston reclines inside her home at the bulb. She became a major guide of archaeological research. Boxer Bob's "mansion" sat on the northern-most point of the bulb. He built it out of found materials and lived (and boxed) there for many years. (Image credit: Robin Lasser, used with permission)

Many of these living spaces were tucked away among the dense brush and landfill debris that characterized the Bulb's landscape. The density of vegetation and diversity of topography, with thickets of wild fennel and coyote brush, and hollows and hills from uneven dumping, made it possible for these homes to exist at the same time as recreational uses, especially dog walking, increased. In a documentary about the Bulb, Osha Neumann, the landfillian's pro-bono lawyer and an artist who created some of the most icon artworks in the park, says that you could walk through most of the Bulb and not see a single home (Haque et al. 2011). In another documentary, resident Phyl talks about "Bulb time," made possible by the privacy provided by the setting and relative stability of the community: "Go to sleep peaceful and wake up peaceful" (Potdar 2015). I discuss the spaces these people created in more detail below, but what I want to highlight here is how these people created community of private lives while living in nominally public space.

The community differentiated between living spaces and shared, public spaces, like the amphitheater and library. Jimbow, the steward of two libraries, had lived on the Bulb for six years when he was interviewed in a 2013 documentary. He created the library, as well as other sculpture and art on the Bulb, as part of his public life there, remarking, "I have to create something every day…like a hunger" (Kramer 2013). He also maintained his own private living space. KC also ran a community kitchen at her place, cooking for those who paid a subscription fee or hauled water for dishes or cleaned (Kramer 2013).

Stories and histories of this community describe both respect for personal living spaces and conflict surrounding the use of places. In a particularly striking scene from *Bum's Paradise* (McCabe and Rozen 2003) a landfillian recounts how another resident had dumped human feces on someone's tent when they were going against accepted behavior. Conflicts between Bulb visitors like dog-walkers and day-trippers were not uncommon, but also not unresolvable in the estimation of many residents, like Amber Whitson, who characterized the Bulb as capable of accommodating both public and private uses.

The Bulb as a landfill began as a pseudo-public utility: part of the infrastructure of Albany accessible to those directly involved in demolition and dumping, but also benefiting a larger population of residents. After the landfill closed, the Bulb became a different kind of public space, a piece of infrastructure oriented towards the recreation and quality of life for the citizens of Albany (and beyond). But that kind of publicness opens it up to the contested use of the place as homes—private areas within a public park. In the documentary, Osha Neumann discusses the self-organization of the landfillian community as one of its great threats (Haque et. al. 2011). It is this tension between public and private that is at the heart of the conflict between city and regional park goals, the needs and desires of the community living there, and the user "public" that eventually are considered "stakeholders," a category that did not include the landfillians living on the site (City of Albany 2016).

Publicness and private-ness are core concepts in urban planning, geography, and anthropologies of space and place. But the terms avoid static definition and remain slippery as we use them in contexts of regulation, development, and everyday life. Public space navigates degrees of visibility, collectivity, and priority (Weintraub 1997). Public space is a legal, geographic, physical, and pragmatic category of place, imagined as accessible to the common (which excludes many based on categories of personhood like race, gender, ethnicity, and class) for the common good (which is not the same for everyone) as a resource or amenity. Public spaces can act like commons, resources, or amenities. I use public spaces because I feel entitled to them. I conform to a set of appropriate practices when I am in public spaces. By diverging

from these norms, most public space is revealed to have conditions of entitlement. That is, I am not always (the) public, even when I am in public space.

If: space is a "co-product" of the "proceedings of the world" (Thrift 2009),
and: public-ness is a social practice which creates groups of people through visibility and collectivity,
then: public space is the physical/material product of practices of public-ness.

Private space, by contrast, is the product of psychical/material practices of privateness. It is a different kind of entitlement, to seclusion, safety, and privacy. Practices of privateness are based on an assumption that some things and practices belong solely to the person, that there is something outside of the collective. Privateness in the contemporary US is also contingent on particular privileges to access, distributed differently based on identity.

The spaces I discuss hereafter are made both through their physical characteristics and the activities that take place in them. Some private, some public, some otherwise. The community of residents and spaces built on the Bulb challenges, yet again, an easy separation of public and private, but also highlights the contingent status of public space being "for everyone" and private space being under the exclusive ownership and control of the person.

Developing the Dump

Another important mode is the ongoing development process for the areas of the Albany Bulb now owned by the City into a component of the McLaughlin Eastshore State Park (Eastshore Park), managed by the East Bay Regional Parks District (EBRPD). Eastshore Park is comprised of city and state owned parcels and trails running eight and a half miles along the East Bay shoreline from the Bay Bridge in Emeryville to the Richmond Marina, making it a unique element within the California State Parks holdings. The EBRPD was created in 1988 by state and local funds to manage urban State Park holdings in the East Bay, and has been authorized by California State Legislature to use funds to buy new land for the creation of the Eastshore Park (Krieger 2017). Since then, the City of Albany has created and accepted a number of documents outlining the "condition" and steps necessary to make the Albany Bulb fit for inclusion in the park. These documents have served as the legal basis for the treatment of people living on the Bulb.

These documents represent the institutional understanding of what the Bulb is for and how it should be used. They demonstrate a narrow view of the impact of people living on the Bulb—that is, one of hazard and mitigation. The documents routinely isolate the "trash" created by residents as a key safety hazard, translating the problem of homeless bodies into one of trash clean-up. Analyzing the language of state, city, and regulatory documents helps describe the context in which people living at the Albany Bulb were evicted and the institutional literature of which my archaeological data will ultimately become a part. This analysis unpacks the value propositions that foreclose homeless histories as valid "cultural resources" and, as such, are evidence of the erasure against which my archaeological work pushes.

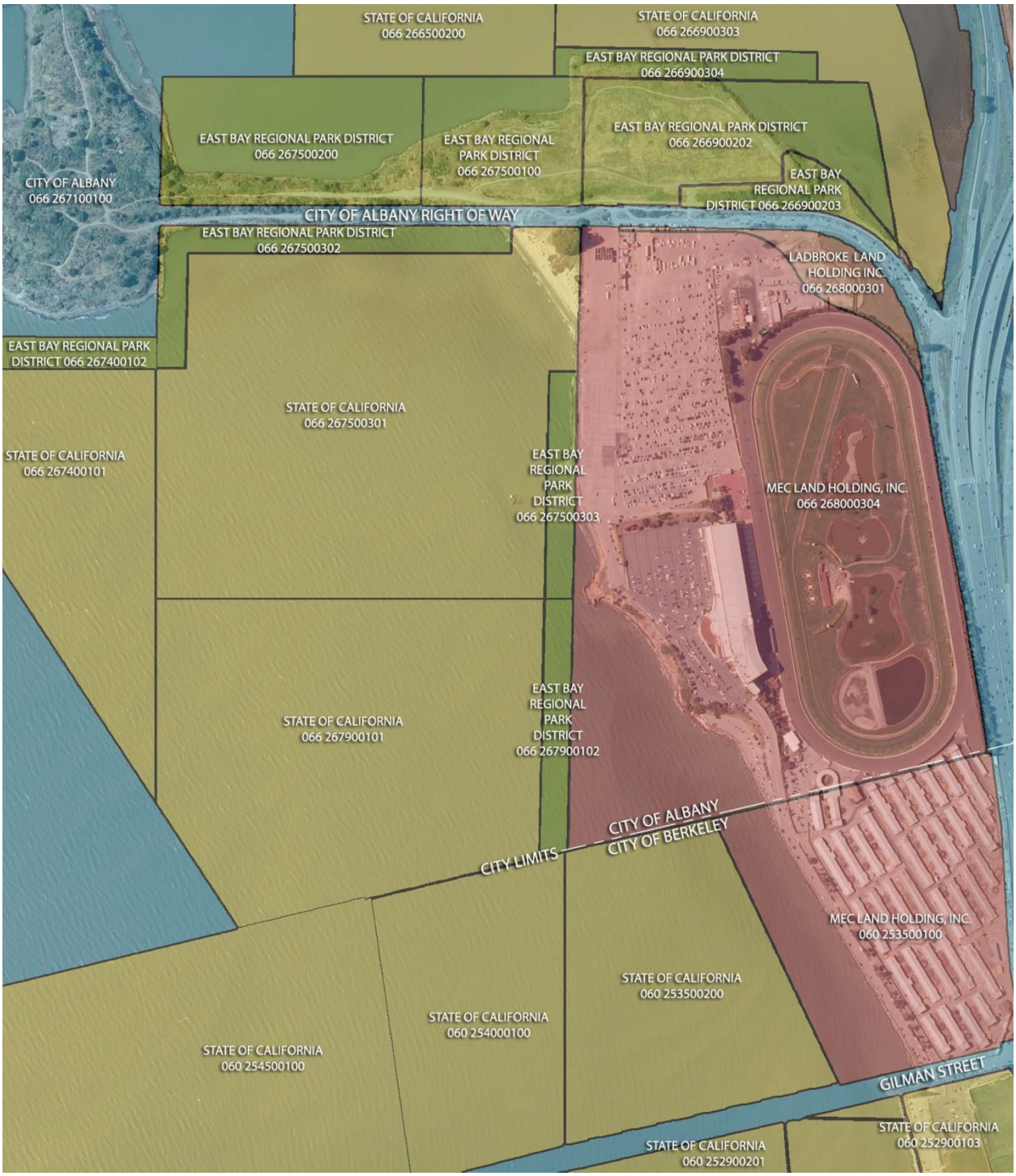


Figure 2.4 This map shows the patchwork of ownership and stewardship in the area surrounding the bulb. While the City of Albany has tried to have ownership transfered to the California State Parks, as of 2020 the neck and bulb, which constituted the central portion of Landfillian neighborhoods, still belongs to the city of Albany. (Image credit: EBRP shore restoration plan)

In 1995, the city approved a proposal for inclusion of the parcel into the Eastshore State Park, now McLaughlin Eastshore State Park (California Coastal Conservancy 2002). This formalized a relationship between the city and State Parks leadership to jointly imagine a clear set of uses for the Bulb, "to provide an open, usable parkland area for the enjoyment of the

community at large" (City of Albany 1995). Whom the "community at large" entails is merely implied in these planning documents, though my reading suggests that the residents then living on the Bulb are not included in this vision. In fact, in this 1995 proposal, there is no mention of human habitation or active art activities, although it suggests collaboration with artists for interpretive programs and notes historic construction debris as a resource for encouraging the "charm" of the "ruins." It also proposes that the Bulb should be maintained as a "semi-wild area" (City of Albany 1995, 8). One of the objectives of the plan is to "provide a safe and secure environment of children and adults," a sentence which seems to be referencing unregulated activities like residence alongside partying or illegal drug use. Nevertheless, it does not detail exactly what could be unsafe about the Bulb beyond exposed rebar and "public safety problems," although documentation of existing plant and wildlife is extensive (City of Albany 1995, 5, 19).

According to a 1997 report, the landfill was "undeveloped," though this probably does not mean people were not living there (Streamborn 1997). At the very least, enough people were living at the Bulb in 1999 when the Mayor of Albany approved placement of a temporary trailer in the parking lot and police intervention to remove all residents, as mentioned above (Emslie 2014; Whitson 2014). Presumably this eviction follows the motivation of the 1995 report which aimed to make the Bulb an attractive property to the EBRPD.

However, by the early 2000s the transfer of total ownership and management had not been made, "due to concerns regarding uneven ground, protruding metal, unregulated art projects, construction debris, and recent homeless encampments" (City of Albany 2013). A 2012 plan for the first phase of improvements at the site, circumscribing the beach, southern pathway and plateau, notes the aesthetic value of some art works as "wild art" and the existence of possible historic features in the surrounding area as remnants of 20th century industry (Questa Engineering Corporation 2012). In an evaluation of uses of the beach and the general environment, "scavengers" and "homeless" people are identified as present, but not necessarily "users" of the area. Impacts that present the potential for hazard mitigation are categorized as either "Aesthetic" or "Cultural," and limit the idea of historic resources to the minimum of state and federal standards. The category of "Cultural (man-made) modifications" to the site, indeed, only recognize the development of nearby Golden Gate Fields and the "wild-art." While this makes sense given the clustering of homesites away from the beach (most likely for visibility/privacy and climate reasons), both these official documents skirt around a full statement about the relationship between development of the State Park and its impacts on residents, despite acknowledging the history of the area as Indigenous land.

To begin remediation of these "issues," the city initiated aggressive legal actions to remove all the residents of the Bulb. Initially, the Albany Police department began enforcing a heretofore lax, "no camping policy," at the urging of City Council which would remove all "existing homeless encampments" (City of Albany 2013). A city FAQ website states, "The City Council has directed the City to begin enforcement in October 2013. People inhabiting the Bulb will need to move out of the park, along with their belongings. Camping gear and other personal property which is left in the park will be gathered up and stored by the City for 120 days. Any unclaimed property will be disposed of at the end of the storage period" (City of Albany 2013). This document demonstrates some sensitivity to the material realities of homelessness, identifying people's things as "belongings" and "personal property," but still characterizes dwelling at the Bulb as "camping" rather than prolonged residence. This is understandable given that the definition of residence involves formal ownership through wealth transfer, but it is

important to note the difference between the city staff's language and that of those living there (McCabe and Rozen 2003).

A group of several law firms, including Kilpatrick Townsend & Stockton, the East Bay Community Law Center, and the Homeless Action Center, filed suit against these blanket evictions in November, 2013, and many residents resisted the removal. In April 2014, the city settled with twenty eight residents by offering $3000 in exchange for the dismantling and evacuation of their homes and agreeing to a one year stay-away order (*CBS San Francisco and Bay City News Service* 2014). Most residents took this deal, but a few rejected it on principal, even though they subsequently received formal citations. Regardless, the city's attempts were ultimately successful and all former residents of the Bulb moved on, taking as many of their belongings with them as possible. Most did not use the temporary shelter trailer, once again installed in the parking lot, which offered a row of camping cots. They said that compared to their homes on the Bulb, the trailer was a huge downgrade, with no privacy or security, noisy fans and lights and a claustrophobic atmosphere (Burress 2013, Whitson Personal Communication). The community scattered. Some folks used their settlement money and re-housing assistance to go indoors, some invested in RVs, some relocated under the Gilman Street overpass (an encampment that was removed by police only a few weeks later).

Figure 2.5 A series of photographs and captions demonstrate what "risks" are present at the Bulb, including "garbage" that is likely related to homes (top) and a before and after set of photographs demonstrates the city-run "clean-up" of people's homes after they were evicted (bottom). (Image credits: City of Albany)

According to the city, immediately after the enforced dismantling of homes, city staff loaded 40 40-yard dumpsters filled with debris characterized in a presentation to City Council as, "soiled items and generally trash, along with hazardous wastes including biohazards" (City of Albany 2014). This general trash presumably includes the belongings of former residents who could not take everything with them into housing or elsewhere, and is a marked change in tone from the FAQ description of belongings and property. In this report, home sites are identified as the main cause of "unsafe, unsanitary conditions of our waterfront park," and care is given to repeat the statistic that 26 people had been "housed" (not *re*-housed, as many who lived there could claim) through the process. While significant effort was made by the city through contract with the Berkeley Food and Housing Project to do outreach and (re)house residents, these actions were not contextual to the needs of all residents or their relationship to the material presence of their homes at the Bulb. The rhetoric of "clean-up" erases any recognition of the practices of care given to house sites, and statements that the transitions aimed to "ensure accessibility for all park users" immediately eliminates the residents as users of the place.

Language surrounding the problem created by homelessness is notably directed at the physical materials of the encampment themselves, alongside the bodies of people who inhabit them, though the connection between the two is strongly implied. The strategic focus on the clutter of material, rather than the humanity of the homeless, suggests that people themselves are only as important as the "problem" of their belongings. This strongly parallels how the material belongings of migrants crossing the US-Mexico border, for instance, are characterized as trash and decried by anti-immigration activists as one way immigration is "destroying America." Anthropologist, Jason De Leon, points out that, "reducing these things to 'garbage' is not only a value-judgment; it also compresses a diverse range of materials into a problematic category that hides what these artifacts can tell us about the crossing process" (De Leon 171). In this spirit, the rest of this chapter considers the trash, that in the context of parks development is problematic, as a valuable archive of resident's experiences at the Bulb.

In the 2015 Existing Conditions Memo and 2016 Transition Improvement Plan adopted by the Albany City Council, the (now solidly "former-") residents are mentioned within the context of illegal activities, potential fire-hazards, and garbage, but also as part of the site's, "rich environmental and cultural history that offers numerous interpretive themes for exploration, from its days as a landfill, to its more recent history as an encampment community, artistic canvas, and wildlife habitat" (Wallace Roberts & Todd, LLC 2015, 91). This suggests that the multiple viewpoints about the residents have been at least nominally incorporated into these reports through public comment and more sensitive research on behalf of the authors. However, these reports do not acknowledge these places as homes, rather as illegal camps or dwellings that are "problematic." As of April 2018, all improvements to the beach had been completed and paths on the neck and bulb widened, pampas grass removed, and trees limbed to improve apparent safety and discourage illegal camping and drug use. However, further work on an environmental impact report for necessary work to improve the rest of the Bulb and complete land transfer had been halted due to doubts within the council regarding the willingness of EBRP to take on the property.

Art, on the other hand, has been treated with more consideration. An additional trace of human activity and ingenuity at the Bulb in the post-dump years, art is at first considered part of the "charm" of the bulb, though still something which might be heavily managed, moved, or destroyed. Lobbying and a developing understanding of the potentials of the place by the

planners charged with developing speculative development documents, however, eventually moves art in general out the category of hazard and into the category of "Cultural Resource" (East Shore Resource Survey 2000). The most recent plans suggest that a non-profit take over the management of art projects at the Bulb, which still significantly alters the free-form unregulated practices of graffiti and sculpture-making there.

I want to draw a connection between the art-making and home-making that took place at the Bulb before evictions in 2014. Both are practices of attention to the materials of the Albany Bulb as a place, and practices/performances of care and creativity that actively create the place itself. Both challenge regulatory notions of the performance of publicness and privateness, and both index a history despite being comprised of "trash." The inclusion of "wild-art" as a cultural resource opens a space to further consider the traces of residents in the landscape as cultural resources as well. The traces of homes and lives visible at the Bulb after eviction index the same kinds of care and attention as art making, as well as the development of communities of mutual assistance and conflict. The archaeological documentation which I discuss in the next section is aimed at representing these traces in a way that is legible within the development context as a cultural resource.

State, city, and regulatory reports are descriptions that fit professional standards, as are archaeological reports. Both are largely quantitative and spatial descriptions of a qualitative experience of place and history. Both contain implicit value propositions about what counts, what gets counted, and who matters. These documents are the institutional/bureaucratic records that an archaeological report is filed alongside. The authority of the reports replaces lived histories on the landscape of the Bulb with categorized conditions, potentials, and effects. Furthermore, these reports include maps and photographs which are important parts of their rhetorical force. Maps implicitly make truth claims about rights to ownership and control. Images are chosen with purpose to portray the landscape as a wild and natural place. Archaeology, too, uses maps, schematic diagrams, and photography to make truth claims. Producing these representations navigates the power of this genre to produce "truth" and "value."

A challenge for the Archaeology of the Albany Bulb as a project of engaged research is to use this bureaucratic context and the authority of archaeological reporting to reinforce former residents' rights to histories in this place, without either vilifying or denigrating the residents, or placing them in a sanitized, far-flung "Past". An archaeological site report has the potential to reify or challenge the statements made in such documents, *in the same language* as the reports themselves. The authority of archaeological attention is one of detail, document, and verification, but it can also be open-ended and multivocal through the inclusion of creative products as I discuss below.

Bricks

Figure 2.6 This close-up of Pat and Carrie's brick floor shows two different kinds of brick, red and yellow, used to create a precisely laid flat floor. Close ups of similar bricks found at the Bulb show makers marks from the Stockton and Richmond brick companies (inset). (Image credit: the author)

I want to think about bricks, and will begin at the turn of the 20th century, when they were the building material *de rigueur* of the booming west-coast of California. Los Angeles and San Francisco were the epicenter of a massive clay-brick industry. The mass production of brick requires deep, pure clay sources that can be mined, and the clay processed, molded, and fired in kilns, all of which were in good supply and operating at scale by this time.

The bricks in Figure 2.6 were made by the Stockton and Richmond brick companies. Stockton Fire and Enamel Brick Company was founded in 1907 supplying the Bay Area with bricks from a prolific clay source in Tesla (east of San Francisco off Interstate-580, between what's now Livermore and Tracy). That very same year, the Los Angeles Pressed Brick Company opened a northern California satellite to meet the high demand for red paving bricks following the 1906 San Francisco earthquake. This company would eventually come to be known as the Richmond Pressed Brick Company (Mosier 2001). Along with other smaller producers, these companies each supplied rapidly rebuilding San Francisco and the ever-expanding communities in the East Bay with hundreds of thousands bricks a year. A handbook to structural and industrial materials of California, also published in the early 1900s, said that the Richmond plant, just a mile west of the town of Richmond, made on average 30,000 bricks per day, had "a patent kiln of its own design," and a holding capacity of 800,000 bricks (Aubury

1906). The companies, located on shore-adjacent industrial land, used their patented machines and kilns to churn out the raw material of homes, fireplaces, pathways, storefronts, and civic buildings for decades. The Stockton Brick Company closed in 1943 and the Richmond Brick Company closed in 1966 (Mosier 2001).

From their makers marks and this documentary record, I can say that the bricks in Figure 2.6 were made by those companies, sometime between 1906 and 1943-'66. And, just by being bricks, they are part of the story of the transformation of the Bay Area, of the dramatically changing material realities of the first half of the 1900s. But these are "bricks out of place," as anthropologist Mary Douglas (1966) would say. They are no longer part of the fireplace for which they were made.

Sometime between 1963 and 1983, the Richmond, Stockton, and other bricks found their second home as part of the massive tons of debris we now call the Bulb. They lived out their first lives as part of the structural landscape of Albany, then came to rest here amongst the traces of the East Bay's industrious growth. But not for long…

By the time I arrived at the Bulb in the Fall of 2014, Pat and Carrie were gone. I know them through stories and the things they left behind at their home on the southwest end of the Bulb. From what I gather, Pat and Carrie were long-term residents of the Bulb and lived there for years. They were living together in 2011 when Pat was diagnosed with congenital heart failure and was told he had six months to live. Despite stints in the hospital, he returned to the Bulb and lived there for two more years, even inviting hospice care to his place on the Bulb once or twice. He lived out the last of his time as a "landfillian" in this home with Carrie, spending most days in a lazy-boy recliner, according to his friend and bulb resident, Amber Whitson (email to the author, March 5, 2015). After he passed in October 2013, a group of friends constructed a memorial message in an area known as the "brick yard," just above Pat and Carrie's place, that read, "We <3 you Pat." The brick memorial to Pat was a fitting one, as one of the striking features of his and Carrie's home was a meticulously laid brick floor.

Comprised of yellow and red bricks made by the historic Richmond and Stockton companies of the early 1900s, this 21st century floor puts matter back in place. Under the tall canopy of the tree at the center of their home, the floor was surrounded by bermed earth and was, as I've been told, protected by a combination of salvaged wood and tarps. A glazed ceramic decorative molding was still resting on the floor when I first visited, the perfect side table. A switchback path and a brick stairway led to a platform on the embankment above. Across from the brick floor a large open space also protected by the tree canopy was surrounded by brick-lined garden beds containing tended plants and trinkets. According to Amber, the floor was one of Pat's last projects, and you can feel the labor of love just by looking at each brick perfectly aligned head to foot, even more so when you stand on it and realize it is a masterfully level platform that has by now weathered four years uncovered.

I never knew Pat, but according to his Facebook page he considered himself an urban archaeologist, as does Amber Whitson—both core figures in the community at the Bulb, as well as avid collectors, scrapers, and tinkerers of material found at the edges of urban life. Amber, at least, knew the deep history the materials that made up the Bulb could tell. When she gave me a tour of her camp, she quizzed me on collections of historic marble and steel, along with uniquely stamped bricks and ceramics. The landscape and history of the Bulb invite this kind of inquiry. The Bulb itself is a human artifact that tells of many years of Albany's history.

Means: making an archaeology of the Albany Bulb

I became aware of the Albany Bulb shortly after the evictions were completed. I had never been there, but was invited to join a project called the *Atlas of the Albany Bulb,* whose goal was to document, through maps broadly defined, the experiences on and state of the Bulb before development projects began. *Atlas* organizer, Susan Moffitt, had been in touch with a number of residents, and had begun recording visual and spatial histories by providing the residents with disposable cameras to document their homes, doing walkthroughs with residents to create a preliminary map of home and public spaces, and working with UC Berkeley design students to document different aspects of the landscape including trees, paths, and art works (Moffat n.d.).

On my first visit to the Bulb in October, 2014, Susan introduced me to former-resident and activist, Amber Whitson. Amber walked us up the "neck" towards where her home, until a few weeks before, had stood. Along the way, she narrated the now disappeared locations of homes and other constructions, including a "visitors center" under the tallest tree in the park and a barricade that had been set up in the last throes of resistance to stop police from evicting those, including Amber, who tried to stay. She pointed out where trees had been "limbed up" by parks maintenance: trees with branches close to the ground had been pruned to increase the distance between branches and the ground, presumably to create greater visibility and discourage any further camping or other illegal activity. Indeed, as I would later learn, trees were a central feature of most homes at the Bulb, and a very important symbol of the resilience of residents. The trails, too, once narrow and overgrown, had been cleared and widened with a bulldozer. Amber also pointed out areas of the Bulb that were good spots for finding copper wire and other metals that could be sold as scrap. The bedrock of the Bulb was not just a resource for building, but also for generating income, twenty or so dollars at a time. But Amber's material sensibilities far exceeded the needs of metal scrapping. As we approached her former home, she started pulling historic artifacts off a pile of rubble and quizzing me. She approached the material around her with the acute attention of a historical archaeologist.

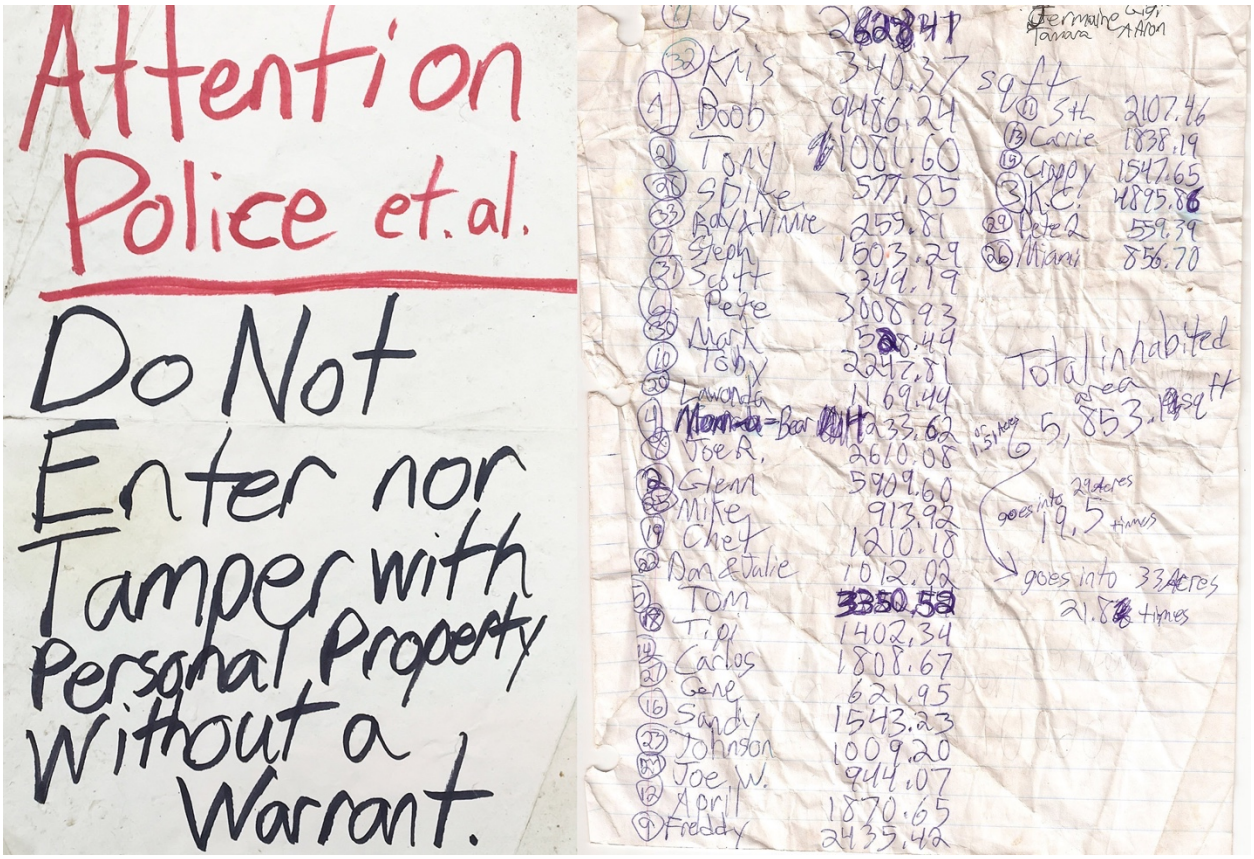


Figure 2.7 Amber kept her own archive during evictions, it includes signs she and others posted on their homes and around the Bulb (left), as well as her notes and thoughts, including a list she made using google earth at the library to estimate the square footage of each homesite (right) (Image credit: the author)

Amber's home (that she had shared with Phyl) had been a tent and tarp construction supported by a tall tree, with a floor of broken concrete pavers and an outdoor cooking area. Now only a bare foot print remained. The decorations she used to adorn her front walk and interesting bits of metal she hung in the tree stood as a testament to the impossibility of completely relocating. Some things just couldn't make the journey over uneven Bulb trails to her new spot in an RV. Amber had fought eviction with everything she had. She made calculations of the square footage of people's homes using Google Earth imagery for evidence in the court case and spoke at city council meetings (see Figure 2.7). She reiterated many former residents' sentiment that she felt much safer and mentally well living where she could hear the wind blowing through the bushes and the tarps around her.

After our walk, we discussed the possibility of an "archaeology" of the Albany Bulb as a way to continue the *Atlas* project. Already interested in the material traces of the past, Amber said it made sense to document how landfillians had reused historic and contemporary building materials to make their homes. Moreover, the political intervention of an archaeology of the contemporary matched her and other Bulb residents' goals to keep their story circulating. This story, we agreed, was suited to archaeological representation because it is one of intimate life on the Bulb navigating the systemic forces of homelessness and disenfranchisement, as well as a story of displacement and erasure. Documentation and representation with the toolkit of archaeology might allow me to represent the "small things forgotten" of everyday residence at the Bulb, while at the same time painting a picture of large-scale inequality (Deetz 1996). It

might also allow me to demonstrate the rapidly encroaching "past-ness" of residents at the Bulb as the result of narrative erasure.

All residents had been evicted and most had stay-away orders that prevented them from returning for the next year. Amber herself had rejected the $3,000 settlement and dealt with the legal ramifications of doing so for a few years after. Because of these stay away orders, it would be impossible to ask most former residents to participate in the documentation of their own homesites. Moreover, residential and economic precarity had increased for many after the eviction making consistent collaboration even more difficult. Amber, Susan, and I agreed it would be appropriate for me to lead a team of volunteers to survey and document home sites, and then bring our documentation to former residents off-site midway through the project.

Engaging

This was a complicated decision in light of my goals of engaged research. I was committed to exploring the potential of archaeology to be an ethical, collaborative, post-colonial, activist practice. Yet, the traces of home-making at the Bulb were being actively disappeared by community and city organized clean-ups as part of ongoing efforts (see "Modes"). The population of residents had already been fractured in a dramatic fashion, making the possibility of even basic consultation that much more difficult. And the conflict between landfillians and the city had been big news in Albany and the surrounding cities, touching a nerve that resonated with the overwhelming experience of homelessness in the Bay Area at large,—though this interest was quickly disappearing in the rush of other media spectacles.

All of these complicating factors posed a significant ethical challenge worth reflecting on as one of the main "means" of this project. It was hard to avoid a mentality of "salvage," viewing as I did (from my limited outsider perspective) the value of the material traces of home-making that were rapidly changing. In the language of salvage, this change becomes "disappearing." The perceived time pressure of this "disappearing" made a long-form kind of collaboration seem too slow. Of course, this is not a fact, but rather the impression I brought from a long entrenched anthropological and archaeological idea. This kind of scholarly paternalism has been well critiqued, and I cite it here as one of the major challenges for engaged research in a dynamic contemporary setting like the Bulb.

I did not, in a comprehensive way, receive a mandate or consent from each person whose home we documented, nor from a group of residents who could represent the interests of the Bulb as a community. In the case of personal mandate or consent, I was overwhelmed by the prospect of tracking down each person to do so. The time this would take was incommensurate with the idea of salvage, as discussed above. In hindsight, building relationships with a wider range of former residents would have been a good way to follow up on interest Amber, Susan, and I shared in documenting the homesites. That I did not do so brings to light some of the inherent disciplinary boundaries I leaned on to justify an immediate material engagement. Other archaeologies of homelessness have challenged the idea that such research can only include attention to material.

Considering collective mandate or consent, there existed no group who claimed to represent the entire community of the Bulb, even prior to eviction. Residents at the Bulb considered themselves explicitly independent, and one of the freedoms the Bulb provided was the distance from authoritative structures of government (Kramer 2013). By tracking down more residents and learning about preexisting informal structures of authority, I could have created a group to claim that authority and provide accountability. However, this would have been a form

of consent inherent to my archaeological goals, rather than a preexisting interest among residents. Again, I could have done this, but I didn't. I listened to Amber and the translation of stories and desires through Susan and her team of mappers to develop the methods of the project.

Given the "vulnerability" of the population of residents, this lack of consent is important to recognize as part of a pattern of treating people experiencing homelessness as somehow not able to consent. Insidiously, this practice goes as far as involuntarily committing people experiencing homelessness to mental institutions or hospitals, and developing transitional housing and other service programs from the perspective of "institution knows best," rather than co-developing programs with those who use them. This extends to the way the park is being developed, although the city did build in a communication process with residents before installing the transitional trailer housing and other services.

Given these situations, I locate this project as one of consultation rather than true collaboration. I do so to recognize that every research context holds within it the potential to engage at any point along the "collaboration continuum" (Colwell-Chanthaphonh and Furgeson 2008, see Ch. 1). What matters most is to accurately and critically reflect on where the project (in its modes and means) truly lies. This does not diminish the validity of the work as "engaged research." That this project is consultative does not diminish its effectiveness in revealing humanity and creative home-making, but rather identifies what is and is not possible when reflecting on its outcomes. That is, this project represents a point in my own development as a researcher in understanding the facets of engaged research.

Finally, the concept of mutual benefit still guided the design of the research. I have repeated the speculative benefit that archaeological recording might serve a heritage purpose, creating value around histories and narratives of the evicted residents. More abstractly, these narratives might also participate in activist and social service efforts to address the experience of homelessness more holistically. I discuss benefit abstractly in Chapter 1 and it is this goal of engaged research figured prominently into my focus on visual archaeological representations of home.

Recording

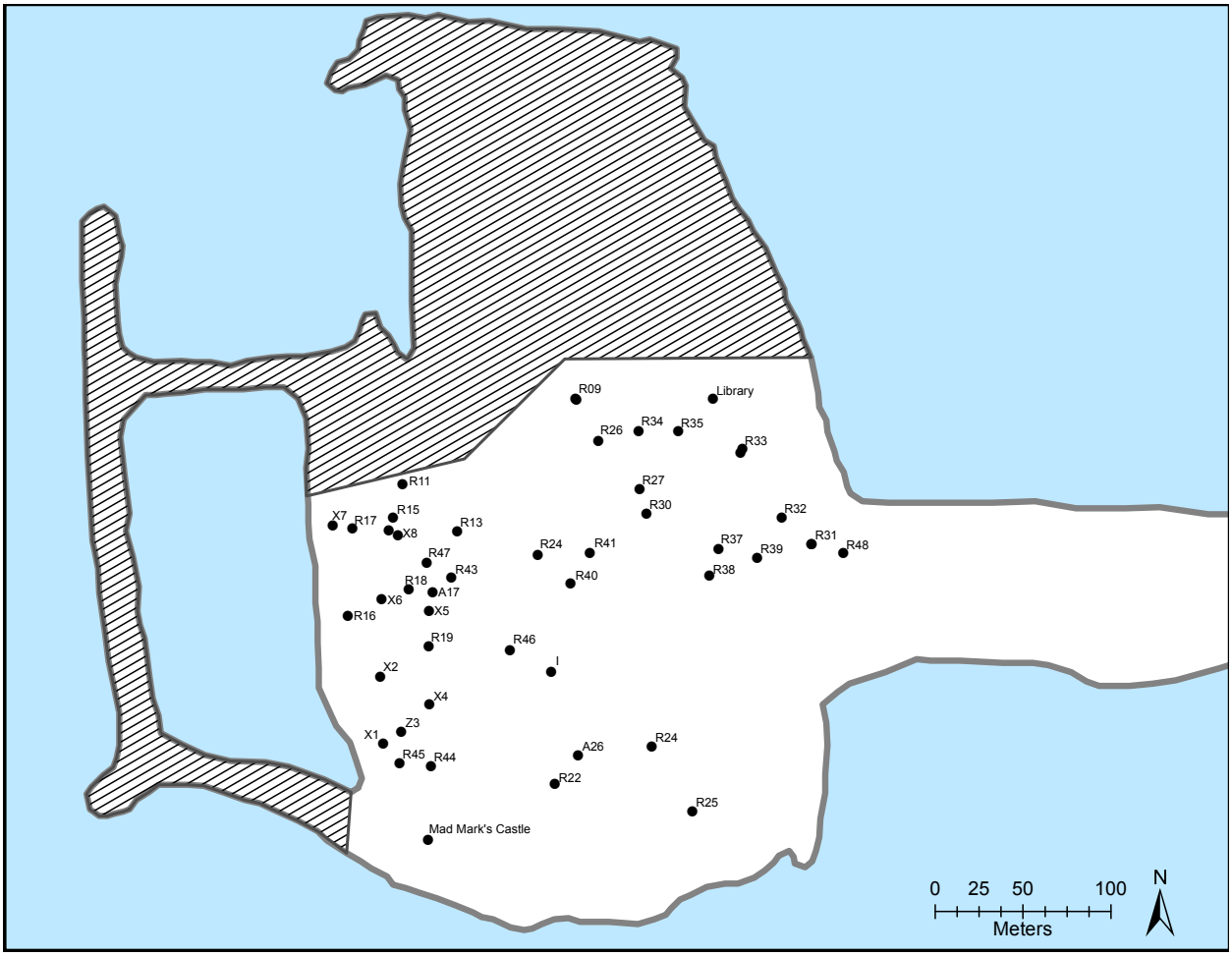


Figure 2.8 On the map here you can see home sites marked with an R. These were identified by a former resident with the names of their inhabitants. Sites marked with an X indicate homes identified by material patterns alone. Other sites include artworks and shared places like a Library and "visitors center." (Image Credit: The Author and Mario Castillo)

A month after that first meeting with Amber, a team of graduate and undergraduate student volunteers and I began surveying home sites on the southern half of the Bulb (see Figure 2.8). We used traditional archaeological methods to document what was left of the non-traditional homes. We spent hours at each site, attending carefully to every left-behind object and construction, photographing, mapping, and describing the pattern of regular doings that undeniably marks these places as homes. Our methods derive from the modes discussed in the previous section and are guided by the ethical commitments of engaged research I have outlined in the introduction.

To develop the survey strategy, I began with a map made by a former resident in collaboration with a Berkeley landscape architecture student. This map identified roughly where homesites and public spaces could be found, and what they were or who they belonged to (Moffat n.d.). Because the map was made during the anti-eviction struggle and lawsuit, it exists in two forms: one with the names of residents and one with alphanumeric codes that identify sites as R (residential) or P (public). This level of anonymity was important in any publicly disseminated information at the time, due to the potential risk it posed for former residents to be sued or cited. However, while doing fieldwork we used known residents' first names alongside

the predetermined alphanumeric code to identify sites on field forms, as well as in conversation during and after fieldwork. This was a conscious decision to assert the unique humanity of each resident and the home-y-ness of these sites, perhaps enhancing volunteers understanding that publicly accessible identification of specific people with these sites could pose a legal risk. In the online image database, I removed personal identifiers and only used the alphanumeric codes to link images to particular locations. However, names were used in association with each home maps, which were eventually exhibited at the SOMArts Gallery in San Francisco. This again served the purpose of countering the potentially de-humanizing effect of the map as I discuss more below.

We began our survey in the southwest quadrant of the Bulb because a dense number of residences were there that did not get media coverage, including like Boxer Bob's place and the "art gallery" (see Modes). We determined a sample of approximately half the geographic area of the Bulb, which included different types of topography and home construction styles. Guided by the map of known home sites, we determined this would suffice to give a sense of the diversity of home-making practices at the Bulb. An initial team of one or two researchers would relocate residence placemarks and log a more precise GPS point, along with a short narrative description. Between known sites, any other residences or public places that did not appear on the map were given new number codes and recorded in the same way. In all, we recorded forty-one sites: thirty revisited housesites, seven newly identified house sites, and four public/art sites. We documented eight of these further on a "short form," and inventoried four of them using two by two meter test surface units.

From among this geographic sample, I selected four home sites for detailed sketch mapping and surface test unit recording. My criteria for selections emphasized sites with a range of architectural features of interest, in order to sample the various intensities and strategies for occupation and home sites of residents known to those of us working on the project. Each site selected for detailed attention was described on a field form, sketch mapped, and photographed. The goal of this intensive recording was to create both an accurate and visually effective document that created a variety of media through archaeological attention.

The recording form itself is an important site of interpretation and representation. Its design structured how our descriptions of home sites came into being and creates the terms of qualitative and quantitative data. It states what is important and isn't. To that end, I tried to make the form narrative. It starts with prompts to describe relationships between sites and the general landscape. Starting with this puts the homesite into relation to all the others, suggesting the decision making process of calling a place a "site" at all. It then scales down through features and artifacts, then repeating a narrative site description that incorporates all these elements.

Site forms also included a section that records who visited the site during recording, and any comments they may have made about the history of the place or the work being undertaken. This tracked how in the process of recording material we were also *performing* archaeology for a public, park-going audience. The test unit form guided a more intimate scale of accounting for a one by one or one by two meter square area of densest artifact scatter.

To expand the qualitative, narrative description of each selected homesite, we created expressive sketch maps. These maps are to scale, but don't point out the provenance of every artifact or material type. Rather, they create an interpretive visualization using measurements as a way to assist map-makers with a range of skills and experience collaborate on one image. Most sites took at least two days to map, which attests to the complexity of the sites. This was important because I wanted to counter the objective propensity of the map without undoing its

authority. These detailed site maps join smaller scale maps that show the distribution and density of homes and link them to knowable places. These smaller scale maps do the work of expanding the detail of the sample sites across a wider area of the Bulb.

Because of the consent/consultation issues described in the subsection above, I decided not to collect "artifacts" which included former residents belongings or dumped materials re-purposed in their home-making practices. I made this decision despite the fact that these objects were being actively cleaned up as "trash," and despite the fact that in an audio-tour of the Bulb former residents instructed visitors to pick up things they found interesting and deposit them in the middle of the labyrinth on the north side of the bulb or add them to other parts of the artistic landscape (Detour 2015). In fact, it was because of these two factors that I made the choice not to collect objects as part of my Archaeology of the Albany Bulb. In the first case, the encounter with objects that have intimate associations with people and home-making, such as a contact lens case that I discuss below have strong affective potential. If members of the Albany community or city staff encountered these same objects during future "cleaning," there remained at least a small chance that they would be confronted with the reality of these places as "homes" and the persons who lived in them. In the latter case, removing objects (even those that would ultimately be "cleaned") significantly changed the character of the places where they could be found. Removing objects and curating them as "artifacts" would also remove the potential for them to be repurposed as part of the dynamic creative landscape of the Bulb.

So, rather than remove objects, we photographed them. Using archaeological conventions, we included photo scales to create images that could be used as quantitative data, as well as qualitative representations that included the background context of where they were found. Leaving the images with backgrounds of dirt, debris, and other artifacts prevents them from being removed and sanitized in a lab photography setting. It keeps them alive as part of the lived-in landscape of the Bulb. Photographs of features and homesites join the artifacts to create an image archive at multiple scales.

Re-presencing

This was the collection of materials that we brought to the Albany Community Center a few weeks after the survey. The detailed maps of three homes were the focus of my participation in the *Atlas of the Albany Bulb* consultation event, attended by a handful of former residents and their lawyer, Osha Neumann. While recording Amber's corrections to the map of Pat and Carrie's place, I asked her if any of our documentation mattered. She replied, "It really does. I just wish the people of Albany could see this." Another quality of archaeological recording, which I try to use sensitively and critically, is its authoritative documentation of "truths." I took Amber's statement as a suggestion to take advantage of this quality as a way to demonstrate the practices of creative home-making and care developed by residents at the Bulb to an audience not predisposed to consider those as elements of the experience of the homelessness.

An important "means" of doing this work was its presentation as part of the February, 2015 gallery exhibition, *Refuge in Refuse,* curated by Robin Lasser, Danielle Siembieda, and Barbara Boissevain at the SOMArts Gallery in San Francisco, CA. In fact, the project was initiated with presentation as part of the *Atlas of the Albany Bulb* in mind. To present the archaeological material that addressed the issues of representing the intensity of use of the place by former residents, a group of graduate student volunteers and I developed three elements. First, a set of didactic museum panels explaining the concept of an archaeology of a contemporary, and the kind of material recorded and why. Second, I screen-printed the detailed maps of three

homesites that had been vetted by former residents on materials like those found at the bulb: unbleached canvas, ripstop nylon, and cotton batting (encountered when the outer layer of quilts and blankets degrade). Presented in this form, the 40 inch square maps reference the documentation process itself, which viewers could pick up to look at, sensorially experiencing the image (see Figure 2.9). Finally, the maps lay on top of a tabletop upon which Amber's collection of anti-eviction ephemera lay under glass.

The photographs were not the focus of the installation at SOMArts and so, as part of further enlivening the data to portray this larger narrative, I began working on a second form of representation: an interactive photo database. We collected hundreds of site and artifact photos from the sample of surveyed house sites. In order to turn them into a meaningful archive, I worked with three undergraduate research apprentices to organize, caption, and tag all the photos in Adobe Lightroom which I discuss further below.

The final element of re-presentation is, ironically, the most traditional form of archaeological reporting: the site report. This report will close the loop between research and action by being filed with the state parks. The report addresses the material of homesites as an important cultural resource, in the language of resource management and heritage. In so doing, however, it will also insert a different narrative of homeless experience into the bureaucratic record. The archaeological reporting of homesites as a cultural resource will counter descriptions of homeless material as trash and hazard.

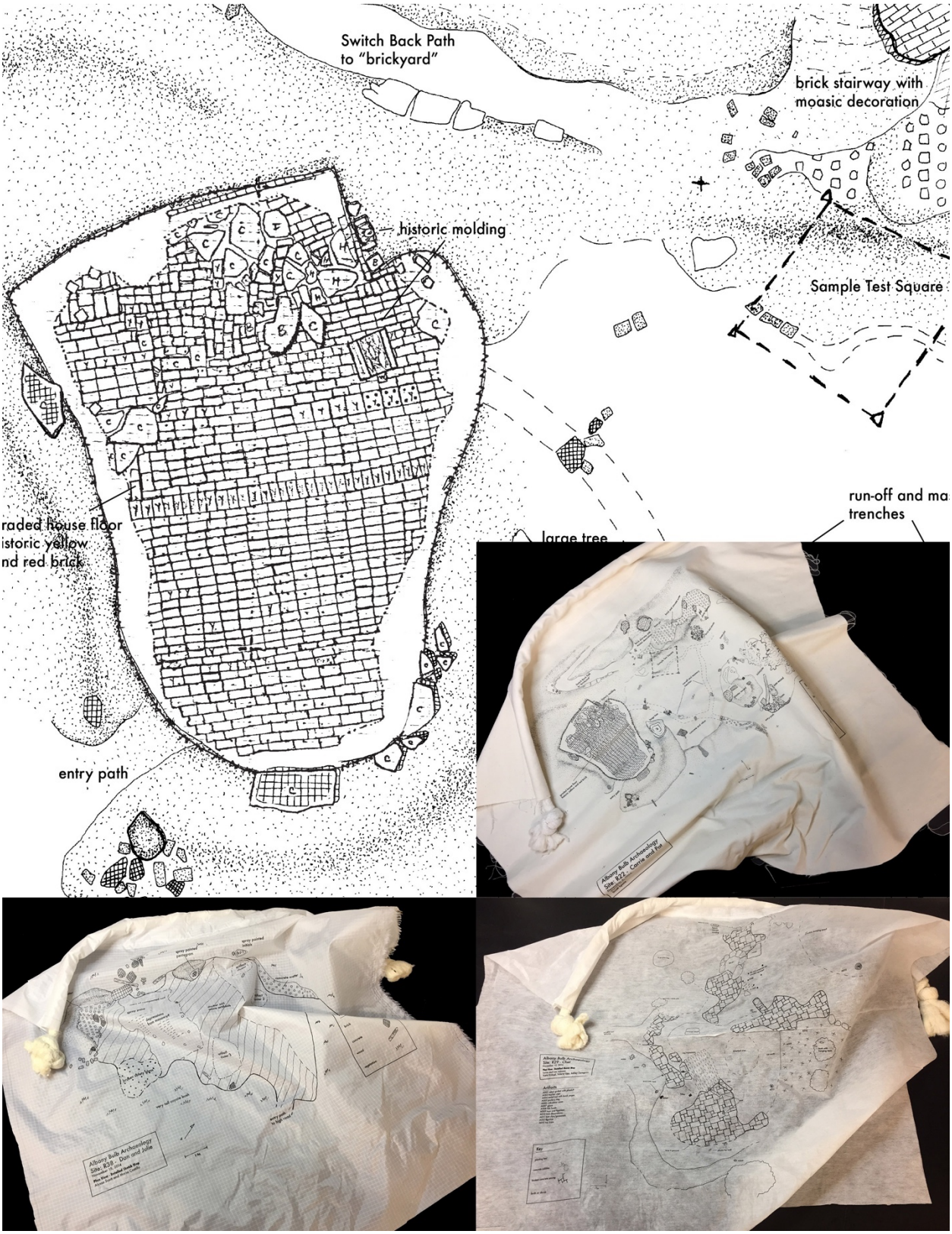


Figure 2.9 A close-up of the home site map of Pat and Carrie's house shows their meticulously laid brick floor, and the drawing style meant to emphasize the collective effort of map-making and interpretation (above). These maps were screen printed on canvas, ripstop nylon, and cotton batting (below). (Image Credit: the author)

Gardens

> The garden satisfies the aspirations of everyday existence: work shared with a few companions, family members, or neighbors, work that has quality and measure, capable at best of humanizing a small fragment of nature. The garden is where we can impart to others our knowledge of a family tradition, and where we can briefly withdraw from the perplexities of the outside world; it is where we plant a seed which we hope will someday flower into a more beautiful landscape, a more harmonious community (Jackson 1980, 35)

Figure 2.10 (clockwise from bottom right) Stephanie's garden plots included ringed brick trees, succulents, and native plants and Chet and Pat and Carrie's gardens used similar outlined beds to hold both pants and an assortment of decorations.

Bricks and gardens go hand in hand at the Bulb. At Pat and Carrie's place, there is a dirt mound ringed by bricks. When we recorded it, clearly tended succulents and non-native plants grew around a host of trinkets and shells carefully arranged in clusters and scenes: a small

ceramic baby Jesus, a mickey hand, a tiny cup and saucer. At Chet's Place, a number of slag-lined beds skirt a broken-concrete platform and sturdily constructed fire pit. Inside, Chet had draped large, other-worldly succulents with jewelry and Christmas ornaments, and piled the beds full of small plastic toys. Tucked off a spur from the main road, on a point under a tree, Stephanie's place is edged by a low broken concrete wall that frames magnificent views of the bay and Golden Gate. While she lived there, this area was neat and well-tended, and her gardens were extensive. Lining the whole southern end of her living area, her garden beds were brick-ringed like the others and held clearly cultivated specimens of plants found "wild" on the Bulb, as well as succulents that still held the shape of the pot they came in. It's still a place where people gather to sit (there is a new bench) and picnic. It was also marked as a site for new park amenities in a recent plan published by the city.

I think of gardens as parallel materialities to bricks. Here I am not conceiving of a scalar jump from the discrete item (brick) to the assemblage of items (garden) that form something that archaeologist calls a "feature." Just as bricks are a congealment constituted by their clay source, the history of their manufacture, disposal, and reuse, so too are gardens congealments of matter in the form of plants and bricks and the practices of tending and ornamentation. All of these are in intra-action: they are defined through their relations as part of life on the Bulb.

Gardens as Places of Multi-Scalar Expression

Landscape architects, geographers, and anthropologists theorize gardens as sites of personal and group expression. "Creating a garden…is the ultimate in self-expression: ideas may be copied (or more politely borrowed) but no two gardens are alike" (Wickham 2012, 1-2). Gardens symbolically create communities or assert allegiances. The gardens at the Bulb are both part of formal historical trends in the design of domestic gardens in California, and the particular experiences and desires of the residents. Gardening as a "civilizing" practice, has a central position in the myth of the "taming" of the West. Colonial gardens have been framed as "a defense against a hostile world" (Jackson 1980, 33), belying an ignorance of Native Californian practices of tending so-called "wild plants" through controlled burning and harvesting (Cuthrell et. al. 2012). As part of a "cultured" home in 19th and 20th century northern California, gardens served as racial and economic indicators, as well sites for cross-identity interaction and mobility. Garden historian, David Streatfield, writes of three stages of California gardens from the late 1800s to the present: colonial re-creation, imported eclecticism, and regional appropriateness. However, his (and other) gardening histories undersell the importance of the flow of other cultural ideas about gardens that have found purchase in California.

Because the Bulb was a construction dump, clippings from yards around Albany made their way into the refuse and, when the dump was decommissioned, began to flourish (California Regional Water Quality Control Board San Francisco Bay Region 1998). A walk around the Bulb today is a walk around the gardens of homes on the other side of the highway. Exotic succulents and flowering plants rise out of the background of the usual grasses, weeds, and wild fennel. This extends the contingent boundaries of gardens as congealments to include practices of home usually isolated from the experience of homelessness—urban and suburban gardening.

The gardens constructed by former Bulb residents include many of the same resources as those in "housed" Albany. Furthermore, they follow the pattern of the suburban garden that emphasizes decorative foliage as a marker of domesticity, and neat and carefully tended beds as a marker of the well-kept home. Trinkets, toys, shells, and rocks share vernaculars with decorative gnomes and ornaments found in the "housed" community, as well as the artistic forms

of expression and collecting that have become iconic of the Bulb. The domestic, decorative gardens at the Bulb assert a particular practice of care for home, while at the same time integrating a Landfililan aesthetic that symbolically ties its residents together with each other and the place they call home. *This is not playing house. This is home.*

The gardens at the Bulb reflect trends from outside, but are not merely "trickle down" from a "higher" aesthetic form nor escape into fantasy. Rather, they are a "participatory aesthetic" (Nohl 1987). In his phenomenological analysis of "house separated gardens" (allotments, tenant gardens and trailer parks) in Germany, Wener Nohl describes gardens quite similar to those at the Bulb—using bathtubs as planters, incorporating found objects and commercially made garden ornaments—as a valuable aesthetic practice. He finds concepts of usefulness, home, and freedom at play in the development of these gardens. If we borrow his framing, we can say that the gardens at the Bulb encorporated practices of freedom, home-making, and creative expression.

In the same way the architectural marks of home in Pat and Carrie's brick floor demonstrate an aesthetic desire above and beyond shelter, the gardens at the Albany Bulb clearly trace practices of home-making that go beyond the needs of food, shelter, and safety. Gardens represent an investment of time, labor, and creativity related to an aesthetic practice of home. The similarities in available plants between homes at the Bulb and homes in Albany are a shared point of reference for what counts as "home." More than symbolizing for outsiders the shared human desires for beauty in landscaping, these gardens also materially support the needs of people for accommodations in contrast to shelters and supportive housing.

Archaeology of Gardening

We can link the archaeological documentation of the Landfillian gardens to a broader history of archaeological investigation. The archaeology of gardens reaches across time and space, encompassing studies that identify and describe gardens in the service understanding their social, economic, and symbolic import. Most relevant to this project are studies of so-called "vernacular" or "marginal gardens," which, unlike those of the powerful or explicitly monumental, are unique sites of self-expression. This includes, but is not limited to, the gardens of slaves, working poor, and the incarcerated, paralleling interests in identity and symbolic practices (Pulsipher 1994). Most descriptions of this type focus on subsistence and kitchen gardens, while the gardens at the Bulb challenge the assumption one might make from surveying the literature that marginal gardens are purely about survival.

One example that draws parallels to the Albany Bulb is work by Bonnie Clark (2020) and collaborators at the Granada Relocation Center, also known as Camp Amache, in southeastern Colorado. Amache is located on a low hill in the prairie, an agricultural corner of Colorado that was completely razed for the relocation of ten thousand people of Japanese ancestry between August 1942 and October 1945 (Clark 2020b). Collaborative archaeology at the site since 2010 has focused on surveying the barrack blocks with a particular interest in gardens. Internees took the harsh conditions of army barracks and sand-filled winds, and transformed them through gardening (Clark 2017a).

The gardens at Amache, indeed, reflect both Japanese identity and larger trends in American gardening, like front yards (Clark 2017b). Constructed out of found and scavenged materials, these gardens, and those of other camps such as Manzanar, demonstrate complex forms of identification, both American and Japanese, and urban and rural. The archaeology of

these gardens reveals linked networks of internees other communities outside, some as far away as Hawaii or as close as the Arkansas River.

When we recognize the cultivation practices of people living at the Albany Bulb, the landscape which has had much attention from groups like the Sierra Club as in need of "restoration" as a wild place, clearly has more to say. It is an anthropogenic landscape through and through, indeed an artifact in itself of the decades of dumping that created the landform in the first place.

Meanings: an archaeology of the contemporary

I understand archaeology to be the study of the relationship between people, places, and things (after Rathje 1979). It is a slow and deliberate consideration of peoples' stories about a place, the things they leave behind, and the way histories layer themselves on the landscape. I understand an archaeology *of the contemporary,* like the one we undertook at the Albany Bulb, to be a practice of paying attention to the formation of a temporality called "the contemporary"—that is, the formation of the past in the present. Some have taken issue with calling the documentation and research of homesites at the Albany Bulb archaeology at all. They question if the people who once lived there have an appropriate amount of pastness for such attention, being very much (and importantly for the political work of homeless advocacy) alive.

The opening of the "Refuge in Refuse" show at SOMArts Gallery, directly following fieldwork, included both former resident artists and activists, non-resident artists and activists, friends of the aforementioned, and the general public. Reactions from all three groups to the archaeology installation ranged from interest and enthusiasm, to confusion and dislike, though the former largely outweighed the latter. One of my graduate colleagues from performance studies challenged the presentation of our work as "archaeological," because she feared it implied that the residents were dead and gone, no longer suffering the effects of their eviction. It was the hope of the installation to do the exact opposite, to place the seeming pastness of residents' traces at the Bulb alongside both the artistic and physical presence of the residents. The position of the presentation within a gallery space full of other interpretations is key to understanding the formation of the project, which originated with the exhibition as its end.

Representation(alism)

Harrison and Schofield highlight the re-orienting ability of work on the contemporary past as, "places that in some ways we know all about, but in other can seem almost as mysterious and 'distant' as sites of prehistory of the medieval period" (Harrison and Schofield 2010, 5). This was proven to me when I returned to the Bulb a year after initial field work with an interdisciplinary methods class from the Global Urban Humanities program at UC Berkeley. The class was comprised of landscape architecture, sociology, art, and geography students, and I was tasked with teaching them the methods of "archaeology of the contemporary" in two days. I used the opportunity as a way to re-document three of the originally surveyed sites. While doing a preliminary walkthrough of a site we had not featured in the SOMArts exhibition, which was by this time completely overgrown, and had no more clear pathways leading to it, I was trying to impress upon two skeptical landscape architecture students that, "really, this was a *home.*" I described the features of an altered and marked tree with a worn-down space underneath and distributions of artifacts as clear markers. It wasn't until one of the skeptics bent over to pick up a piece of plastic and realized, "Wait, this is a contact lens case!" that the transformation had

been made. “Someone lived *here!*” she proclaimed. Through engagement with the material traces of intimate and everyday life, at once so familiar to this contact-wearing landscape architect, a re-orientation had been made. While this particular instance verges on the reductive or romantic, it is exactly this process of un- and re-familiarizing that has been most powerful in the work at the Albany Bulb.

Presencing

Harrison and Schofield (2010) define the “contemporary past” as the time-frame that exists within living memory, often including the current generation and the one immediately before and after. This definition creates a moving target where, “the past is to be perceived as imminent within the present” (Harrison and Schofield 2010, 4). This, I argue, is the appropriate temporality for the treatment of something like the heritage of homelessness, and I am not alone in this view (see especially Kiddey 2017). People experiencing homelessness can exist as invisible to those on the outside, a state not unlike past-ness. A sense of temporality gives a timeless/empty/erased category such as “homeless” the ability to be the owner of such a thing as heritage, and start the work of reinscribing persons as capable of owning histories on landscapes which try to erase them. The weird work of archaeological attention highlights this state and forcibly brings it into the present through the materiality of its objects.

Materiality brings to the fore experiences of homelessness from *within* the community, even in the (often forced or institutionalized) absence of the people themselves. It draws outsiders affective attention into the *fullness* of the experience of homelessness, an experience full of things, places, and other people. It is then a necessity of an archaeology of homelessness to carry both this sensuous aspect and the political work to create understanding over into its documentation of the phenomenon.

Figure 2.11 The Albany Bulb Archaeology image database (Adobe Lightroom interface, above) uses three different vocabularies (Landfillian, Archaeologist, Developer, right) to organize images like this one, of Amber's home shortly after she was finally evicted.

Categories

We did not collect objects during fieldwork at the Bulb. We did collect photographs: photographs of the home sites and their remaining features, of hearths, gardens, toys, forks, bricks, beads, and turtle shells. This resulted in an archive of 12,000 digital images from 42 sites with short descriptions written on paper.

The choice not to collect artifacts didn't feel like a choice. As mentioned above, the consultative rather than collaborative nature of this project meant that I did not feel ethically authorized to collect objects that clearly had belonged to, and had meaning, for those who had been evicted. In addition, the scholarly reasoning for collecting objects did not fit my purpose for the project in the first place. To collect objects would suggest that they themselves, out of context, held information that was more important than their living out their routes at the Bulb. I could research the origins of toys, catalogue and type ceramic shards, but I didn't feel this would provide the kind of information or experience I was interested in highlighting—the deep connection to home for those who lived in these places and owned these things. It certainly

didn't fit with the idea that these objects were defined by their intra-action with other phenomena at the Bulb.

Of course, today these objects have disappeared. Perhaps they have been cleaned up as "trash" in one of the many city and volunteer organized events that took place in the early days post-eviction. Perhaps they have been buried and obscured by new patterns of plant growth in the absence of residents. Or perhaps they have been picked up and moved as part of the dynamic creative activities of the Bulb.

Once fieldwork was over, I was left to make this collection of photographs (rather than objects) meaningful and useful in a way that fulfilled the goals of the project: to investigate and document the experience of home at the Bulb, and to humanize the experience of homelessness for non-homeless people, while critically reflecting on what that process means. I began working with the images by importing them into Adobe Lightroom, an online cataloguing and editing software that allows you to browse, tag, and edit photos and their metadata. First, I took the conventional approach, with the help of students in UC Berkeley's Undergraduate Research Apprentice Program (URAP), and simply transferred the cursory descriptions and site labels of each photo from a paper log into each image's meta-data. This had the effect of making images searchable by site, but not much else.

What are these images for? They serve as representations of the elements recorded in field forms and on maps. They serve as corroborating evidence that we saw what we saw (Taussig 2011). They also serve as extra information which we did not record by other means. In this way, they are "representations," though in other ways they are interpretations. The setting of the images creeps in from all sides. Since we did not collect objects and photograph them in the lab with plain backgrounds and scales, the textures of the ground and the surrounding materials infiltrates the photos and makes them a bricolage.

This led to a new goal for the photo archive itself. As one of the most dense representations of the homesites and objects left behind by residents we collected, this could be a feature of the archive that can be viewed, manipulated, and sorted by anyone interested. But the main feature of manipulating and sorting such an archive is the keywords associated with each image. In 2017, a group of URAPs began tagging and keywording images based on three "languages" or typologies, corresponding to three different ways of viewing the land of the Albany Bulb.

The first is the language of the former residents, gained from documentary footage, oral history documents, and conversations with former residents like Amber who advised the field work. This language primarily acknowledges the use of Bulb spaces as homes, and orients naming places towards their domestic use and personal association to objects. Toys are personal things, rooms have specific uses (some more private than others), and homes are someone's "place."

The second language is the language of archaeology that we used (for the most part) on our field forms. This is a codified language of sites (defined by use), features (defined by activities), and artifacts (defined by materials and function). This language tends to stand at a remove from the idiosyncrasies of places and things, while at the same time it is put to use to understand the

biographies of things and the history of places. In this language, Stephanie's place becomes a site, her garden a feature, and the elements within decorative artifacts.

The third language acknowledges the contemporary context of the housing crisis and real estate development in the Bay Area as a major factor in both the specific removal of residents from the Bulb and the larger phenomenon of homelessness in the Bay Area. This is the language of real estate sales. Drawn from sites like Zillow and Redfin (whose boundaries for Albany include the Bulb), and Home Improvement television shows and catalogues, this language defines places and objects as sites of possible consumption. They are places to live, sure, but primarily speculative and aspirational sites of upward mobility.

Each language creates a new layer within the archive, actualizing a particular perspective on the material and making it sortable by any viewer. With these keywords, the collection can be rearranged and the nature of different keywords compared.

Conclusion

My hope is that the documentation we created can be used in creative ways, to capitalize on the authority of science and the language of heritage. The kinds of descriptions, forms, photos, and maps produced by our work are yet another way the Bulb comes to be known as place. This happens through the experience of living there and making it a home, or through visiting it and interacting with it as a landscape for contemplation, recreation, and art making. The now-evicted residents of the Albany Bulb lived there for any number of reasons, and had any number of relationships to being called homeless. Attention to the Bulb as a place of homes—a place of fullness rather than one of lack, of attention and ingenuity rather than discard and disuse—challenges how we judge the experience of homelessness. Many residents of the Bulb considered themselves housed, even lucky in some respects, to be living on bayshore land, largely safer than under highway overpasses and abandoned doorways. While life on the landfill was not without hardship, some of them loved the Bulb, and they felt more at home there than anywhere else.

I'll end with the words of the residents themselves, from an anonymous "Open Letter" painted on three large slabs of concrete on the southern shore of the Bulb just months before the evictions:

> This landfill is made from the shattered remnants of buildings and structures that not so long ago were whole and standing, framed in concrete and steel, expected and intended to last. Now, through the concrete, the grasses make their way. Eucalyptus, acacias, and palm trees drive their roots down through the cracks. Waves constantly erode the shoreline and wash out the edge of the road. And here and there, in sections leveled and cleared of rebar, our tents are hidden away. We live around, and with, and in the rubble. Live. Not merely survive. Can you see how hopeful this is?
>
> The Bulb is not utopia. It is not free from strife, and chaos, and cruelty, but neither is anywhere else. It is flawed, but it isn't broken and it shouldn't be treated that way. We too are flawed. But we are not broken. So when the politicians start asking their questions and making their decisions, you can help ensure that we are not treated that way.

Chapter 3: Interlude

My archaeological approach to the Albany Bulb pushes against erasure. The City of Albany and East Bay Regional Parks District want the Albany Bulb to look and feel like a "park," and reflect their mission to preserve "natural" open space. However, the physical and narrative reality of what the Bulb is (a dump), how the Bulb has been used (as a place for homes and art in addition to park-like recreation), and who has been using it (people "experiencing homelessness") challenges these ideals. The archaeological documentation and interpretation presented in the last chapter highlights the phenomena of care and home-making that congeal in the places left by evicted "landfillians" through gardens and architecture. My archaeological attention to multiple temporalities of material (e.g. bricks) reflects the history of capitalism in the Bay Area through some of its intimate affects. This landscape risks being purged of these narratives. These stories have always been meaningful to the people who lived there and hold potential to humanize and expand the possibilities of homeless activism in the Bay Area.

As an archaeology of the contemporary, my work at the Albany Bulb moves away from a stark distinction between what is and isn't archaeological. I foreground the attentive practices of archaeology in order to expand the use of our disciplinary models into meaningful social issues. Moreover, I do so in order to challenge some of the assumptions of existing archaeologies of homelessness and "the contemporary."

In the next chapter, I shift gears. The shift may seem radical. I take a long drive from the shore of the San Francisco Bay, east into California's Central Valley, South to the Mojave Desert, and east again across the great southwest. In Albuquerque, I turn north on Interstate 25 and branch to the northeast in Española, a town founded by brutal Conquistador, San Juan de Oñate, as the first capital of *Nuevo Mexico,* before arriving in a small town in northern New Mexico called El Pueblo de Abiquiú. The chapters that follow trace my journey to collaborate with residents of Abiquiú on politically and socially meaningful research. This collaboration looks very different from my research at the Albany Bulb and took place over a much longer time frame. In Abiquiú, the social phenomena I investigate are ongoing traditions of Spanish Colonial irrigation, the features much older than even the bedrock of the dump that became the Albany Bulb by about 200 years. The community in Abiquiú also has very different histories, interests, and governing institutions from the distributed community of the Albany Bulb. But there are some fundamental similarities that make reflecting on them in tandem productive for thinking through methods of engaged research and creative practice.

In Abiquiú, the community traces its origins to Indigenous people from across the southwest and plains, who were captured or bought by Spanish Colonial households. These people were called *Genízaros* once they spoke Spanish, became Baptized and practicing Catholics, and adopted other material practices of their Colonial households, including food, dress, and comportment. As a relatively low position in the hierarchical *sistema de casta*, Genízaro people were often treated more like slaves (although that was outlawed) than by their official status as indentured servants. Eventually, the ancestors of the families that now live in Abiquiú acquired land from the Spanish Crown at the edge of the Spanish Empire. Abiquiú was not the most fertile or safest location in Nuevo Mexico, but the Genízaro Land Grantees made a community while serving as a "buffer settlement" for the larger and more productive Grants to the south. Throughout the following 200 years, the status of "Genízaro" (displaced from their tribes of origin and reconstituted as an *Indio-Hispano* community people) set the stage for

conflicts over land and water rights. These continue to this day, while also including issues of heritage management and tourism.

So how could the stories of the residents of the Albany Bulb and the residents of El Pueblo de Abiquiú be put side by side in this manuscript? Fundamentally, as I wrote in the previous chapter, the landscape of the Albany Bulb is one of structural inequality, one that privileges certain people over others, and is a main player in the presentation of the value of "nature" over industrial history and contemporary homelessness. So, too, is the landscape of El Pueblo de Abiquiú. The story of Genízaro existence in Abiquiú is bound up in the landscape and collective rights to the land and water that are part of it. While Abiquiú's story begins with Colonial violence, displacement, and disenfranchisement, it continues into the present, where movements for federal recognition and the adjudication of water rights pit Abiquiúceños' approaches to resources and heritage against the capitalistic mechanisms of State and Federal government.

I also put these two projects side-by-side methodologically. Not because they are similar, but precisely because they are very different. At the Albany Bulb, I rushed to document homes before they were cleaned up, erased, with de facto mandates from only a few residents. At Abiquiú, I was introduced slowly to a community who had already requested the work of archaeologists, who had hierarchical structures of governance, and clear mandates for the outcomes of archaeological research. At the Albany Bulb, because most residents had stay-away orders, I worked with Bay Area college students to complete fieldwork and interacted with residents as consultants once documentation had been completed. At Abiquiú, I worked with a cohort of local youth who were paid interns for the full duration of field recording and participated in communicating our work to the Abiquiú community and their peers. During work at the Albany Bulb, creative interventions through maps and photographs emerged in response to the context of the place as an "art park" and invitation to present the work in a gallery setting. In Abiquiú, art has long been a key component of youth engagement and was built in from the beginning of the project as part of the data of research, not just its representation.

These differences reveal my fundamental claim about "engaged research," broadly speakingI have reflected on the challenges and failures of the Archaeology of the Albany Bulb Project (ABA), and I will do the same for the Berkeley Abiquiú Collaborative Archaeology Project (BACA) in the chapters that follow. But I hold strongly to the claim that they are both engaged research projects. Each uses the skillset of an archaeologist, anthropologist, and artist to highlight the narratives of groups who feel they are not being heard or understood, people who are being denied a right to history. Both projects pay close attention to the material temporalities of landscapes in order to tell these stories. Both projects use creative practice as an important method, for communication in one case, and collaboration in the other.

What emerges from the juxtaposition of these two projects is a meta-narrative about my growth as a researcher and my investment in both communities. Each project produces knowledge about the history and future of the residents of a place. Each project attempts to do so in a way that recognizes the positionality of this knowledge production as one of many. But together they tell another story. A story about what worked and what didn't in specific cases, not as a cookie-cutter model to be applied elsewhere, but as part of an ongoing practice of engagement that shares intentions, if nothing else.

In Abiquiú I often didn't know where to start. My default approach was to "take meetings" at Bodes, the local gas-and-everything-else store. In such a meeting, I thought, we could talk and come up with some mutual understanding of how research should go. Mostly

people looked quizzically at my notebook full of chicken-scratch names, dates, locations, and scraps of dialogue, and I left those "meetings" with more questions than answers. Not surprisingly, real mutual understanding and relationships strong enough for collaboration came from "hanging out," which was more unpredictable and more or less on my collaborators' terms. While I had identified what I could do for the BACA project given my training and interest, they guided me to a full understanding of where the research should go (and continued to do so over and over again).

One January night, I was visiting the Trujillo family hoping to have a chat with Virgil about the acequias everyone kept talking about. I had hoped he could clarify the tangle of partial facts I had in my brain about how the system worked. We did get a chance to talk when he came home, long after dinner was over. It was only a few minutes before he said he had to go move some cattle. He asked if I would like to come along. So I hopped in the back of the truck with Isabel, Virgil, their daughter Chavela, and her boyfriend. Chavela and her beau were reading a book about Christian marriage aloud. I was useless in the cattle department, but Isabel and I kept warm in the back of the cab, talking about relationships and history and how it all gets wrapped up together, while Virgil piped in with hilariously blunt truisms about keeping relationships going.

Trucks figure prominently in a lot of the hanging out I did in order to enact my genuine interest in upholding the values of the BACA Project. Bernie and I took more than a few long rides out in the *ejido* looking for acequias, while also talking about family histories of land-use in forests and who lived where when. One summer evening, I caught the Trujillos and a neighbor leaning against the side of some trucks in their driveway and joined in for a long conversation only somewhat about water rights between interruptions by the grandbabies on four wheelers. There was, of course, non-truck related hanging out, too. Our 2016 field school watched Chavela ride barrels in the annual rodeo, and in 2017 we visited Dexter regularly at the Farmers Market where he taught local students to cook pizzas in an horno oven. It doesn't matter which of these events "forwarded" the research of Genízaro identity or acequias; it does matter that all of them are part of the backbone of collaboration—that is, mutual assistance and shared experiences.

The time spent being with people in Abiquiú and participating in non-archaeological activities was neither mere background research, nor the necessary pragmatics for getting permission to do research, but rather the heart of an engaged approach. I cannot undertake research in a place and with people whose daily textures of life and struggles are a mystery, though many remain beyond my understanding. What's more, I cannot expect them to understand my own motivations without sharing common experiences and making time for the kind of essential connections that make common ground.

Chapter 4: Pluralistic Practice and a Genízaro Pueblo

The Berkeley Abiquiú Collaborative Archaeology (BACA) Project is oriented by the term *Genízaro*, created by Spanish Colonial administrators as part of a racial-ethnic hierarchy called the *sistema de casta*. Genízaro referred to an Indigenous person who had been captured or sold into indentured servitude to a higher-caste Spanish household. The word is used in historical documents and oral histories to describe the people originally granted land in Abiquiú in 1754. It is also used by descendants of those people as an identity that is the focus of present-day heritage revitalization and research.

The term and its uses by Indigenous people has had multiple meanings in the last 200 years, starting with an ethnic/racial classification controlled by Spanish Colonial administrators, and morphing into a multi-generational identity. Today, in Abiquiú and other Genízaro Pueblos like Belen and Pueblo de Taos, the identity is part of cultural revitalization efforts to amplify unique Genízaro traditions, expand research into Genízaro lifeways and genealogies, and make Indigenous connections visible (G. P. E. Gonzales 2018; M. Gonzales 2014a; Sisneros 2017). Part of this effort has included archaeologists (and historians and other cultural scholars) whose work I will cite liberally in this and the next two chapters, but who also have a particular part to play in the development of the Genízaro cultural agenda. Some in Abiquiú identify research into Genízaro heritage as "transforming community pain into pride" (Sunseri and Trujillo 2015). Both the Spanish Colonial casta category and the contemporary meanings and identity ascribed to the term Genízaro by community members are the main social context for the research I undertook as part of the BACA Project.

The status afforded by "being Genízaro," along with the meaning ascribed to it, has changed over time, as residents of Abiquiú have navigated shifting colonialisms, from placement on the dangerous frontier of the Spanish Empire, to becoming hinterland territory of the Mexican Republic, and then the United States of America (Atherton and Rothschild 2008; Sunseri 2014). Genízaro is and always has been a pluralistic identity. Pluralism describes the wide range of practices that Genízaro people enact within the constraints of dominant cultural forms. Practices from Genízaro communities of origin are woven into Hispano practices taken up while in servitude in Spanish homes and during life as Spanish citizens. In the environment of a Genízaro pueblo, this variety grew and transformed further in the borderlands environment of marginally policed Spanish cultural requirements (Brooks 2002; Sunseri 2018). I will discuss anthropological models for this in the second half of this chapter.

The plurality of Genízaro-ness makes a collaborative approach to archaeological research not just interesting, but ethically and epistemologically necessary. In the second half of this chapter, I will describe the collaborative approach taken by myself and the BACA Project as a whole, and lay out why this is in fact the only possible way to do Genízaro archaeology. I do not mean possible in a logistical sense, though in fact that is also true (I can imagine the non-collaborative archaeologist being run out of town on a rail). I mean that there is no possible way to adequately interrogate the history of Genízaro practice in the Abiquiú landscape without a similarly pluralistic approach born of community desire, collaboration, and diverse perspectives on oral, archival, archaeological, and contemporary sources.

In this section, I will describe how Genízaro evolved from an imposed category of the si*stema de casta* to being used in a strategically essential way to build solidarity among

community members with interests in asserting a connection to their Indigenous histories. Strategic essentialism is a term coined by Gayatri Spivak in the context of South Asia to describe the way that certain identities and concepts, while pluralistic, can be strategically fixed in order to participate in the workings of the nation state, or other institutions which cannot recognize fluid forms of being and belonging (Danius, Jonsson, and Spivak 1993; Spivak, Harasym, and Harasym 2014). In Abiquiú, the fluidity of Genízaro is being used strategically to communicate Indigeneity to federal, state, and local authorities, as well as recruit youth, non-local relations, and researchers to participate in local practices of revitalization and preservation.

Genízaro through the occupations

Spanish Colonial Occupation

In the Abiquiú of the 18th and 19th centuries, during Spanish Occupation, the term Genízaro was applied to people from Tewa, Hopi, Comanche, Ute, and Apache (likely among others) who had survived years of servitude in Spanish Colonial households (Brown 2004; Ebright 2006). It's clear from historical documents that in 1742 Fray Francisco Delgado moved twenty four Hopi Tewa to the mesa at Abiquiú, and in 1754 thirty four Genízaro families were officially granted the land which incorporated the Hopi Tewa settlement (G. P. E. Gonzales 2018; M. Gonzales 2014a; Wroth 2014). People from Abiquiú maintained connections with nearby Ohkay Owingeh (known as San Juan Pueblo at the time), other pueblos and plains tribes (see Lamadrid 2003, 243 note 7 for the lasting connections to the "Tewa World").

Other casta designations, like *mestizo* and *coyote,* were also often used to describe people of Indigenous origin who were indentured or otherwise allowed in Spanish society. There were up to twenty four different casta designations at various points in the Spanish Colonial occupation of what is now New Mexico, and the classification of people could vary greatly based on the context and whims of colonial administrators (Ebright 1994; 2014; n.d.; Atherton 2013). Originally used in Spain to describe a Spaniard of "mixed European parentage," it shares linguistic origins in the Turkish words for "new troops" that begot the English word janizary (Magnaghi 1990, note 2). Both the biological/racial connotations and the denotation of the word to refer to conscripted protectors are historically at play in the meaning of Genízaro since the occupation of what is now New Mexico by Spanish colonizers. Fray Angelico Chavez (Chavez 1955) defines the term as "a mixed non-Pueblo Indian people who followed Spanish ways," and Gutierrez (1991) as "detribalized hispanicized indians." Genízaro was a specific northern New Mexican term historically that now holds significant relevance for present day Abiquiúceños.

This "Hispanicization," or following of "Spanish ways," was the result of indentured servitude in Spanish households which were part of a slave economy that was a long standing and integral part of the raiding and trading relationships between Native American tribes and Spanish colonizers (Brooks 2002; Hämäläinen 2008; Piatt and Gonzales 2019; Reséndez 2016). Indigenous slavery was illegal under Spanish Law in the Americas, but indentured servitude served largely the same purpose. The *recapitulations* of 1681 and *proclomacion* of 1694, stated it was the duty of Spanish citizens to ransom captives kept by native people and employ them as *sirvientes* (indentured servants). High-caste Spanish Colonial families considered servitude in a *Hispano* home a manner of "saving" an *Indio* soul through Indioctrination into Spanish culture, language, religion, food and clothing. Once a sirviente was "freed" by working off their "ransom," they became Genízaro (Magnaghi 1990). The tenure of servitude was often abused by

Spanish masters and Genízaro people withstood harsh conditions with few rights (Brooks 2002; Reséndez 2016).

The status of Hispano came with benefits, respect, and power within the sistema de casta, but under the *Leyes de Indias* (law of the Indies) so too did the status of Indio. Laws governed the preservation of Indio access to land, resources, and rights explicitly (however nominally), but not those of indio-Hispano people. Depending on the context of conflicts within the legal system, people from Abiquiú during Spanish Occupation identified themselves as Genízaro, marking a connection to Indio rights, to varying degrees of success (Brooks 2002; Ebright 1994).

During Spanish occupation of what is now Mexico and New Mexico, it was unusual for Genízaros to be granted land even though people of mestizo or "mixed" heritage characterized a large portion of the population. In 1790, it is estimated that Genízaros (as identified by colonial and church administrators) accounted for roughly one out of every three Nuevo Mexicanos (Bustamante 1991; G. P. E. Gonzales 2018, 3). Those of non-Hispano status were granted land more frequently as the colonial population expanded, so these identities became even more prevalent and the borders of the empire harder to protect (Sunseri 2017). In the decades before Mexican independence, the category of *Genízaro* began to overlap with the status of *vecino* or "land owner" (Jenks 2011, 2013, 2017; an interesting parallel to "californio" B. Voss 2005, more on "land" in Chapter 5).

Kelly Jenks argues that vecino was a unique identity in late Spanish Colonial society, which created flexible entry into upper-class Spanish society for people who otherwise occupied lower rungs of the sistema de casta. Jenks claims in fact that this economic, rather than ethnic, form of identity replaced caste language, saying, "the most salient aspect of Spanish Colonial identity in late colonial New Mexico was not Spanish Ethnicity but one's residence and accepted membership in a Spanish Colonial Community" (2017, 214). Jenks also demonstrates that opening up land-owning citizenship to people of Indigenous descent is a two way street: "Granting lands to [indigenous people] turned them into Spanish Citizens…and in turn made Spanish citizenship a little less 'Spanish'"(2017, 215). Heather Atherton (2013) notes in the case of San Jose de Las Huertas (another pluralistic settlement near present day Albuquerque that included Spanish colonial Genízaro people) that identity appears to have been linked more to kinship and shared geography and religion than to casta identification, which was largely used in legal documents or interaction with colonial administrators. This includes external identification by census takers, as well as self-identification on court claims and in testimony.

This shifting idea of Spanish-ness is the context for Genízaro people in the 18th and early 19th centuries. However, I argue that this newly available vecino status intersects with, rather than erases, that of Genízaro. Both opened up new avenues of identity and power for Abiquiúceños. Jenks and Atherton set a strong descriptive foundation to understand terms like Genízaro and vecino as identifications which have fluid meanings that people, like members of the Abiquiú land grant, would have fixed in different ways at different times in order to achieve their goals.

Mexican and American Federalist Occupations

The shift from Spanish occupation to Mexican occupation (1821-1846) was slow to reach communities in the far north like Abiquiú. By and large, the community in Abiquiú continued with one significant difference: under Mexican law the racial-ethnic divisions of the sistema de casta were no longer recognized. Genízaros became full land-owning citizens which meant land that was previously held communally became private allotments (Magnaghi 1990; Poling-

Kempes 1997). Additionally, the official abolition of the sistema de casta made the continued identification as Genízaro moot in an administrative sense, even though many households continued the practice of holding captured Native servants well into the final decades of the 19th century. At the same time, trade opened via the Sante Fe and Old Spanish Trail which further expanded economic and social identifications for the Genízaro people of Abiquiú, including the rapidly expanding merchant class. According to Malcolm Ebright (2014, n.d.), in the early 1800s many Genízaro people stopped identifying with the term, which held negative connotations. Discussions of this period in Genízaro histories are limited, owing primarily to the brevity of Mexican occupation, but also a lack of scholarly focus.

The formal abolition of the sistema de casta did not necessarily mark the wholesale abandonment of racist social organizations in Nuevo Mexico. The area came under the occupation of the United States of America in 1846, and the 1848 Treaty of Guadalupe Hidalgo made the transfer of government official only 22 years after Mexican occupation. Again, Abiquiú was not immediately impacted because of the slow travel of news and change in administration, but eventually became an active site for Americans dealing with their "Indian problem." American occupation, indeed, brought a new set of racial hierarchies, formalized by the genocide of Indigenous people throughout the country, and segregation and other legacies of legal enslavement of African people.

Genízaros in Abiquiú were conscripted into the Indian Wars alongside Pueblo volunteers. Americans soldiers were reportedly confused as to whether Abiquiúceños were Mexican or Native, but "the Americans' mistake was their insistence on definitive boundaries: Abiquiú straddled frontiers, with only a vague and often indecipherable borderline between 'us' and 'them'" (Poling-Kempes 1997, 93; see also Magnaghi 1990, 91). The plurality of the Abiquiú Genízaro community during early American occupation continued to be a strategic identity, allowing people flexibility in alliances, while at the same time constraining social mobility. American military personnel othered Genízaro people in Abiquiú through the frames of Hispano and Indio, without allowing for a third (or fourth, or fifth, or sixth…) position. This rigidity has carried into current day issues of authenticity and continuity in the Federal recognition of Indigenous communities.

The American government established "Indian Agencies" in Abiquiú in the early days of occupation. A Ute Agency operated out of the plaza from 1854-1877, and in 1867 reported feeding over one thousand Ute and Jicarilla Apache people in the surrounding area (Poling-Kempes 1997). Late 18th century Indian Agents' presence in the Pueblo maintained the connection, at least administratively, of Indigenous identity to the Pueblo. Moreover, notable residents, like Abiquiú-born Genízaro Ute Chief Ouray, who was active in political negotiations between the Ute and American governments, and Jose Angel Gonzales who became governor during a Pueblo and Hispano revolt in 1837 and was described as Genízaro, become part of a narrative for Genízaros of Abiquiú as continuing to straddle the lines set out by occupying powers (Chavez 1955; Magnaghi 1990; Poling-Kempes 1997).

Ramon Gutierrez's (1991) contemporary English translation of Genízaro as "detribalized hispanicized Indian" belies the fact that connections to tribal origins persisted well into the period of American occupation. In 1910, US President, William H. Taft, signed a land patent confirming the land ownership of Abiquiú to the "converted half-breed Indians" (Taft 1910). This indicates that from an administrative perspective Abiquiú was seen as an Indigenous place and, by all accounts, those living there were well aware of their cultural, historical, and familial ties to more than one census identity. However, with this document the US government

"invoked, transformed, and entombed Abiquiú-based articulations of Genízaro Indigeneity through its very silencing. 'Indian land' in the Pueblo de Abiquiú was acknowledged as having the legal character of 'Indian land' while explicitly negating the legal character of Genízaro Indigeneity as intelligible Indigenous existence in relation to the U.S. settler state" (G. P. E. Gonzales 2018, 57–58). Despite this land patent, American land-speculators continued with attempts to break down the collective ownership of the grant with a case that continued into 1919 and relied on the Pueblo's claims to Indigeneity

As Hispano and Indio, the Genízaro people of Abiquiú continued to navigate a changing economic and cultural landscape, using multiple ways of thinking about property, land, and resources drawn from the conditions of Spanish, Mexican, and finally American occupation. In 1928, the people of Abiquiú were given a choice between legal designation as an Indian Pueblo or a New Mexican village. Until that time, children from Abiquiú attended an "Indian school," suggesting the continued recognition by the government of Genízaro people's status as Indigenous, although perhaps not the same as Pueblo (G. P. E. Gonzales 2018). They choose the official name of the Village of Abiquiú, in part because of recognition of the discrimination and ill-treatment of Indigenous people, probably known through personal experience and those of relatives in nearby Pueblos and reservations (Poling-Kempes 1997). Being forced to choose a single identity (*either* New Mexican village or Indigenous Pueblo) lead the Pueblo into financial trouble, as newly levied taxes based on non-Indigenous status of the land-ownership of the communal *eijdo* lands in the mid-1930s remained unpaid, leading to government seizure. Adapting to new forms of resource ownership and government identification as a primarily Hispano place, a group of residents formed the Abiquiú Cooperative Livestock Association in 1941 and were able to buy back the land.

This black-or-white mentality has continued to apply to definitions of land and cultural use with serious consequences to the survivance of Genízaro identity. The relationship between Genízaro people living in Abiquiú and nearby Pueblo and Plains people is fluid and hard to trace, as it was purposefully erased by both Spanish Colonial and American Settler Colonial systems. People in Abiquiú today have family connections to Okahay Owingay, other Tewa Pueblos, and are connecting with Hopi, Ute and others (Briseño 2019; M. Gonzales 2014a).

The impact of the changing economy, along with increased travel away from Abiquiú as a result of World War II and the post-war years, had significant impacts on the makeup of the Genízaro community in Abiquiú. A pattern of leaving the Pueblo for work continued alongside the growth of tourism and the influx of white artists considering the land an open, romantic landscape, had significant impacts on the livelihoods of Abiquiúceños and the entire Española Valley (Poling-Kempes 1997). Painter, Georgia O'Keeffe, bought property on the Abiquiú pueblo in 1945 and began living there full time in 1949 (Garcia and Dunn 2008; "Timeline" n.d.). Los Alamos National Laboratory opened nearby in 1943 to develop nuclear weapons during WWII, becoming one of the largest employers in the Española Valley and creating a stratified lower-working class out of local people while importing white-collar scientists (Kosek 2006).

In historical narratives of the place, the Indigenous status of Genízaro identity is most closely linked to dances on the feast day of Santo Tomás, practiced annually today (Lamadrid 2003; M. Gonzales 2014a; "Descendants Of Native American Slaves In New Mexico Emerge From Obscurity" n.d.). But Genízaro people embody and embrace the pluralism of Genízaro identity, including a huge range of practices like *curanderas,* or folk healers, some of whom were persecuted as witches between 1756 and 1766 (Ebright 2006), harvest and knowledge of

native plants (Garcia and Dunn 2008), and biographies that connect them to other Indigenous rights struggles (G. P. E. Gonzales 2018, 201). An exhibit case in the Pueblo de Abiquiú Library and Cultural Center, designed by Dexter Trujillo, displays artifacts from the Comanche dance including a beaded rattle, photographs of dance regalia featuring a feathered headdress, and biscotchito cookies in the shape of a cross. Being Genízaro is a personal experience. "I have a lot of fun 'being Genízaro,'" Napoleón Garcia, Abuiuiú elder explains in his memoir. He connects to his Genízaro-ness in his everyday life by justifying various unique ways of doing things: "I'm famous for my over-use of silver duct tape as the main material for repairs. I call it 'Genízaro solder'"(Garcia and Dunn 2008, 62).

In the last 40 years, Genízaro has been mobilized as a contemporary identity that links the past and present. It has been used to make claims to the legally recognized Indigeneity, with access to certain protections and rights, but it is still not fully accepted within the either/or mentality of US settler colonialism. This is not to say that there has been some clear break between "old Genízaros" and "new Genízaros," rather that it has continued to have strategic meaning. Its most recent face is one of re-connection to Indigenous roots. Folklorist, Enrique Lamadrid, points out that the "negative value" of "cultural hybridity" in US culture challenges Genízaro survivance, because "Indio-Hispano traditions are scorned being tainted or impure"(Lamadrid 2003, 199). Benito Cordova echoes this when he writes, "The contemporary Genízaro exists in a hidden cultural limbo. The Indian community refuses to recognize the Genízaro as a cultural brother; the Hispano deny him perhaps because of his pagan, non-Christian origin. The United States mislabels him, and Mexico mocks and ridicules him. But even sadder, when the Genízaro does not recognize himself for what he is, he knows himself only from whispered and ever fading memories." (Benito Córdova, January 10, 1991 memorandum G. P. E. Gonzales 2018, 114).

In 1993, New Mexico was featured in the Smithsonian Folkways Festival in Washington DC and Los Comanches de Serna, a Genízaro group, were included in the program to sing and dance the Hispano-Comanche narratives that are part of ongoing Genízaro ritual. Their inclusion was contested, and *mestizo* culture was said to be "too complex and confusing" for a public audience (Lamadrid 2003, 193). Prominent Abiquiúceño, Fred Trujillo, Virgil Trujillo's father, commented that "we do not pretend to be Indian. But yes, our ways of celebrating the great feast of our parish…shows the blood in our veins in action" (Lamadrid 2003, 193–94). Lamadrid suggests this statement represents, "[an] understanding that Indian refers to a status under the law, rather than to cultural heritage, because Abiquiú is historically a Genízaro village with multi tribal roots" (Lamadrid 2003, 194). I suggest that this ultimately underscores the contemporary challenge Genízaro-ness poses to Federal definitions of Indigeneity, but not Indigenous understandings of Indigeneity, in which survivance contains both continuity and change. Napoleón Garcia also said, "Not a day goes by without my having to explain what Genízaro means…Each time I try to explain being Genízaro I am asked 'from which tribe was my family taken?' The act of being baptized and given Christian names was to deliberately erase any reference to prior 'heathen' or 'savage' connection…[but] they could not remove the deep-seated culture implanted by our ancestors" (Garcia and Dunn 2008, 57-58, 60).

A Genízaro visibility movement has emerged in places like Abiquiú, Rancho de Taos, Belen, and Canuel as part of community interest in federal recognition, archival genealogy, and DNA testing. A central theme of contemporary Genízaro scholarship, led by scholars who identify as Genízaro, focuses on the self-determination of this identity, its history of mis-representation, and its place in the contemporary life of Genízaro communities (G. P. E.

Gonzales 2018; M. Gonzales 2014a; Piatt and Gonzales 2019). This work fights against the limiting of "Genízaro identity discourse" presumed by scholarship, which relies on an understanding of Genízaro as persons "who ceased to exist as Indigenous peoples in New Mexico after Mexican independence in 1821" (G. P. E. Gonzales 2018). It is from this orientation that the BACA Project and its research into the historical materialities of Genízaro experience was formed, and the position I take to historical narrative in this dissertation.

Genízaro is "Good to Think" and Good to Do

Anthropologists love Claude Lévi-Strauss' oft-punned quotation that (something is) "good to think" (Lévi-Strauss 1963). I am no exception in this case. Genízaro is "good to think" because it is already being used "to think" in the contemporary context of Abiquiúceño heritage revitalization *by and for Abiquiúceños* and other Genízaro people and communities. Genízaro is good to think for anthropologists because it troubles traditional anthropological frameworks for understanding Indigeneity in both colonial and modern contexts. Genízaro challenges the idea that there are three identities (both in the past and today) in New Mexico—Indio, Hispano, and Anglo—making "Genízaro subject positions… 'unthinkable,'" when limited to this, "tricultural corpus" (G. P. E. Gonzales 2018, 91). Genízaro is good to think, for me, as a researcher, because it is already being enacted as a powerful category, and reclaimed as the framework for action that includes, but extends far beyond, archaeological and historical research.

As I outline above, the term itself has been used by Abiquiúceños differently at different times, and its contemporary use represents a segment of its many meanings. In the ideal of the sistema de casta, Genízaro identified an Indigenous person who performed Spanish-ness adequately enough to be a *gen de razon* (person of reason) and effectively eschew (outwardly) native practices. This was visually represented in the casta paintings, which identify different racial/ethnic categories by skin color, dress and other symbolic trappings (Katzew 2004). From the Spanish Colonial perspective Genízaro, then, is ideally an "acculturated" identity that disappears Indigeneity (hence "hispanized" in Gutierrez's gloss; see also Archibald 1978; Chavez 1955;Gutierrez 1991). The ideal of acculturation has strong material correlates (Spanish dress, foodways, architecture, etc.) and performances (Spanish language, religion, regimes of property ownership, etc.). In this dream scenario, an Indigenous person's Nativeness would slowly be replaced, and ultimately erased, by Spanish Colonial identification. The concept of acculturation, as used by anthropologists and archaeologists, itself comes from a colonial perspective in which the erasure of Indigeneity through servitude in Spanish homes is considered complete through the formation of a Genízaro ethnicity, which is also ultimately erased.

Acculturation models are founded on the premise that interaction between Native and colonial people, "Only involved exchange, adoption, retention, and discard of cultural traits" (Silliman 2005, 65). In the model, these interactions take place between a "donor culture [that] introduces to, or forces on a 'recipient' culture new ideas, material, practices, or relations" (Silliman 2005, 65). This sets up a linear progression in which the recipient culture becomes more and more like the donor culture until it no longer exists. Acculturation was the model used in most early studies of "culture contact" between Native North American people and colonizers by archaeologists (see summaries in Cusick 1998; Lightfoot 1995; Silliman 2005). In this model, archaeologists could define Native and European artifacts and quantify the amount of acculturation at a given site. This has since been critiqued as an overly simplistic correlate for the actual experience of colonialism (Deagen 1988; Lightfoot 1995).

By the 1990s, in the midst of increased scholarly focus on "contact" surrounding the quincentenary of Christopher Columbus' voyage to what is now the Americas and the passage of the Native American Graves Repatriation Act, acculturation was acknowledged as an ethnocentric, passive, and directional model "totally inadequate for considering multidimensional changes in multi-ethnic social environments" that characterize colonial communities (Lightfoot 1995, 206). Lightfoot and others' recognition of the problems of acculturation have pushed forward the use of other models, which I will discuss below. Nevertheless, acculturation has persisted as a model of colonial encounter (compare the similarities between Arkush 2000; Ennes and Staski 1996; Hanson and Kurtz 2007). Steven Silliman has outlined how the metaphor of "culture contact" prefigures the use of an acculturation model that ignores the varied realities and experiences of colonialism to imagine colonial encounters as short and linear rather than long and entangled, downplays the "complex social terrain" of colonial power dynamics, and privileges "predefined cultural traits over creative or creolized cultural products, which loses sight of the ways that social agents lived their daily lives and that material culture can reveal, as much as hide, the subtleties of cultural change and continuity" (2005, 56). He argues, and I agree, that scholars should orient archaeologies of Colonialism towards complex phenomena navigated by Native people through interaction with European and other Native people, all of which has had lasting effects to the present day.

Despite the continued existence of Genízaro traditions incorporating both Spanish and Indigenous elements and Indigenous identifications by living people, the acculturation model but has been upheld in many scholarly narratives of Genízaro history (Archibald 1978; Hanson and Kurtz 2007; Magnaghi 1990). When limited to colonial written accounts, scholarly understanding of the variety of experience of being Genízaro clearly falls short. Ethnohistoric, archaeological, documentary, and oral historical evidence paints a much different picture of Genízaro people in the last 200 years, continuing meaningful Indigenous practices even while performing as proper Spanish citizens. Pottery production, self-identification, and agricultural practices are all offered as evidence by archaeologists for the continued pluralistic practices of Genízaro people in the past (Atherton 2013; Atherton and Rothschild 2008; Darling and Eiselt 2017; Eiselt and Darling 2012; Jenks 2011; 2013; 2017; Piatt and Gonzales 2019; Sisneros 2017; Sunseri 2009; 2010; 2014; 2017a; 2017b;). As Jenks (2017) points out, our best hope is blending oral history, archival research, and archaeological analysis. Doing so expands our understanding of Genízaro experience and builds new models. In these more robust historical, anthropological, and archaeological narratives, ethnogenesis and plurality have been offered as better concepts with which to explore Genízaro experience and material patterns.

There is significant variation in how archaeologists define ethnogenesis (if they do at all). In general, all varieties rely on understanding ethnicity as, "group affinity that is based on subjective beliefs of shared common ancestry drawn from 'similarities of physical type or of customs or both' or 'of memories of colonization and migration'" (Weber 1978, p. 389 in Hu 2013). Ethnogenesis, it follows, is the process by which new "ethnicities" are produced, in in this case, "forged through the experiences of colonization and culture contact" (Voss 2005, 465). The focus of ethnogenetic models on identity means that "processes, transformations, causes, and politics of social identity making" take center stage in academic analysis of ethnogenesis (Weik 2014).

Ethnogenetic models provide more space to acknowledge the multidirectional agency of Native people in the encounter with colonial violence and cultural forms, rather than the unidirectional and Eurocentric assimilation and acculturation models (Deagan 1998, p. 23; Foster

1960; Voss 2008, p. 33 in Hu 2013). Work from the last two decades concerning Genízaro history (Brooks 2002) and archaeology (Atherton 2013; Sunseri 2009), use ethnogenesis as a positive model. *Nacion Genízaro,* co-edited by Genízaro scholar Moises Gonzales and folklorist Enrique Lamadrid (2019), includes a strong through-line of thinking about ethnogenesis as a position of empowered identity for Genízaro people in the present. However, ethnogenesis can be misused, as in Hanson and Kurtz's (2007) comparisons of New Mexican Genízaro and Red River Metis identity formation. They frame Genízaro as emblematic of acculturation and Metis as ethnogenesis, failing to realize the intellectual history which has produced such a distinction, rather than relying on complex historical evidence for the experience and outcomes of both identities for real people.

By contrast, Genízaro social cohesion through familial ties to place and shared practices have withstood strategic public identifications as Genízaro, Spanish, Indigenous/Indian, Mexican, Hispano, and Genízaro again (or, all at once). All of this poses a challenge to the ethnogenetic model. As commonly applied, the model does not foreground the reality that a person may inhabit a variety of ethnic identifications, that a family or community can identify as more one than another over time, or that any given position can be contested (exceptions include Atherton and Rothschild 2008; Jenks 2017; Sunseri 2010). Neither the acculturation model, nor the productive 1+1=2 model of ethnogenesis, fully describes the complexity of Genízaro experience and identity. Ethnogenesis usefully supports the legitimacy of a Genízaro identity today as the result of a particular set of circumstances that found Indigenous people performing both Spanishness and Nativeness for centuries. However, the model also relies heavily on the idea of a hybridized third created out of the encounter between Colonial and Indigenous practice. This forecloses the strategic use of a variety of identities and reinforces bounded understandings of ethnicities as "authentic" through continuity more than change.

Voss (2015) and others using the related concept of hybridity (Liebmann 2015; Silliman 2015), support a protracted, critical use of ethnogenesis in archaeology in order to avoid having it become a catchall model which loses utility as a theory of identity. In my reading, plurality is key to this narrowing. Plurality has been recognized as the basic context for the experience of colonialism in North America and the multi-ethnic interactions of Spanish colonial subjects (not all of whom were "white" Iberian persons) and Indigenous people from South, Central, and North America (Lightfoot, Martinez, and Schiff 1998; Lightfoot 2005b). Ethnogenesis, then, is predicated on the pluralistic setting of colonial encounter. The formation of new ethnic identities remains within this context of pluralism, rather than overtaking it.

Following Moises Gonzales and Enrique Lamadrid (2019), Gregorio Gonzales (2018), and Bernardo Gallegos (2017), I want to also draw on Indigneous models of experience to foreground the fluidity of Genízaro-ness. Ethnogenesis, pluralistic or otherwise, needs to be combined with theories favored by Indigenous scholars in thinking about the strategies and tactics (Sheptak 2019) used by Native people when faced with Colonial logics of domination. These offer alternative models for what Indigeneity means. In particular, survivance and articulation are important elements of Indigenous and Genízaro-specific narratives of history, opening up Genízaro identity from an equation of 1+1=2 into a complex and ever-shifting calculus. I explore these theories in order to build up ethnogenesis and integrate insights from contemporary Indigenous experience.

Survivance was coined by Anishinaabe scholar and writer, Gerald Vizenor (1992), who adopted the French word *survivance* to combine the words "survival" and "resistance" in order to describe the ongoing, processual qualities of Indigenous existence in North America. It has been

taken up in Native studies and anthropology to orient narratives of Indigenous experience away from a passive response to colonialism toward "active resistance and repudiation of dominance" (Sheptak 2019, 20 drawing on Vizenor 1999, vii). Survivance pushes against an "either/or" response to colonial violence as submission or outright rejection: "Unlike the idea of resistance, survivance can unfold in ways that work through and with the new opportunities provided by the colonial and nationalist situations in which Indigenous peoples of the Americas have participated for more than five hundred years" (R. Joyce 2019, 2). Narratives of survivance do not romanticize the struggle of Native people, but rather include agency as an important element (Sonya Atalay 2006, 609; Silliman 2014, 59).

In archaeology specifically, survivance has been used as a framework to open up narratives of Indigeneity limited to a teleology of colonial assimilation or erasure (Law Pezzarossi and Sheptak 2019). Survivance challenges various programs that use archaeology to delegitimize certain claims to Indigeneity because change in practices and traditions are deemed to be "inauthentic." Archaeologists use survivance to re-inscribe Indigeneity despite, and because of, "continuity with change" (Sheptak 2019, 19). Discussing survivance as an analytic, we can see:

> [Survivance is] corrective to the view that Indigenous histories of change are narratives of loss of identity, loss of authenticity, and loss of group cohesion. These loss narratives silence Indigenous voices and erase Indigenous actions. Archaeological narratives of "conquest," "colonization," and contact that are based on loss narratives assume that pre-contact was the last time Indigenous people were authentic. Such notions are colonialist (Sheptak and Law Pezzarossi 2019, 16).

This term influences how I think about "rootedness" and place in the case studies that follow. Thinking with survivance as a denial of modern Western fixations with authenticity, highlights how often, especially in archaeology, "Indigeneity" relies on continuity in place (Sheptak and Law Pezzarossi 2019, 17). As Law Pezzarossi and Sheptak assert:

> Places are important to Indigenous survivance. People are related to places, to landscapes… But they demonstrate alternative geographies and cartographies that complicate our understanding of the modern landscape as indicative of nationalization, colonization, and loss. Rather than seeing change as a loss of authenticity, the contributors demonstrate how change allows people to continue in their historical relations with their land, their predecessors, their traditions, and their values (2019, 17).

For example, Sheptak (2019) combines Vizenor's survivance with Michel de Certeau's (1984) idea of persistence through strategies and tactics (appropriating the tools of the powerful) to re-narrate the history of an Indigenous community in the Caribbean as one of continuities and change, rather than disappearance, acculturation, or loss of authenticity. He identifies a range of practices that demonstrate survivance in historical documents and archaeological assemblages from the *pueblo de Indio* of Masca from early colonization to the present. Not in spite, but because of their moving inland from the coast twice over a few hundred years to escape the violence of pirates and slave traders, the people of Masca asserted a contiguous identity. They

adopted certain elements of Spanish law and religion, continued the use of Indigenous surnames, advocated for the cultivation of cacao, and adapted Indigenous pottery forms, even combining new techniques when intermarriage with people of African descent had been "used to delegitimize them as 'authentic' Indigenous communities" (Sheptak 2019, 19). Ultimately, "regardless of the degree to which these practices drew on newly created structures, colonial institutions, or newly available goods, these were all actively created, maintained, and transformed as part of a concerted and successful effort to maintain historical connections over time" (Sheptak 2019, 21).

Kim Tall Bear has used the concept of articulation (Clifford 2001) to think through how many parts of identity, made disparate by the logics of colonialism, come together "into new cultural and social formations in acts of borrowing, interpretation, and reconfiguration" (Tall Bear 2013, 512). While she applies it to the use of DNA in structuring enrollment in federally recognized tribes, it is an open concept that supplements archaeological thinking about ethnogenesis. The model backgrounds the question of authenticity, "highlight[ing] the role of power in establishing and validating new cultural formations" (Tall Bear 2013, 513). Most importantly, it fosters an understanding of Indigeneity neither essentialized nor completely constructed. It focuses attention on the productive connections and the articulations between cultural elements, rather than erasing the joints in favor of a new whole. This allows us to conceive of many possible combinations between elements within the same association, avoiding the normalizing of difference between people.

BACA modes

Thus far, I have shown how the term Genízaro operates in historical and contemporary experience and material practices, and I have argued for a blended model of ethno-pluralism and Indigenous survivance to accurately investigate Genízaro histories and futures. I will now turn to the "modes" of the Berkeley-Abiquiú Collaborative Archaeological Project (BACA), which is contextual to this Genízaro heritage, rather than constitutive of it. In musical composition, "the mode" is the theoretical framework for the melody or the different ways of ordering notes in a scale. Likewise, there are many possible ways of ordering Abiquiú history and heritage, contemporary notions of identity, rights to water and land, research agendas, and social needs. The goal of my involvement in the BACA Project was to redirect the usual way an archaeologist would order these things (the mode of normative archaeological research) through collaboration with those living in el Pueblo de Abiquiú, to whom archaeological research could be meaningful. I make sense of my attempt to do so through thinking of engaged research as a mode, the theoretical framework for the execution of my research on historical forms of water as part of an ongoing collaboration.

Why use engaged research in this *specific* case (rather than as a universally appropriate ethical performance)? What are the modes of collaboration, engagement, and decolonization at the heart of our attempt to do research differently together as the Berkeley-Abiquiú *Collaborative*? Why order the parts of research in Abiquiú with an emphasis on structures of accountability, collaborative process, and reinvestment in the community? Reflecting on this, I outline the development of the project and relationships between institutions and people that make it up. I discuss the "why" of engaged research in this section, and will discuss the "how" in continued detail in the next chapter. This is a slightly artificial distinction because the two are

hewn together; they cannot be thought without each other, but here I will take one thing at a time.

In 2014, the Merced del Pueblo de Abiquiú initiated an archaeological research collaboration with Dr. Jun Sunseri of University of California Berkeley and the Pueblo de Abiquiú Library and Cultural Center. Sunseri was approached because a number of Abiquiú community members' showed an interest in adding archaeological information to existing knowledge about Genízaro heritage. Archaeological information has multiple purposes for the Pueblo, including contributing evidence in support of land and water rights, building a case for federal recognition as a tribe, supporting youth education and engagement, and orienting visitors to the Pueblo towards Genízaro history. Genízaro heritage is an underrepresented element of Spanish Colonial, Mexican and American history, despite a handful of popular treatments outside of Abiquiú (Lamadrid 2003 discussion of inclusion at Smithsonian Folkways Festival, Burnett 2016 segment aired on NPR, exhibition at the Gutiérrez-Hubble House 2018). Tourists who visit the Pueblo are mostly attracted by the presence of the O'Keeffe Museum and, more recently, the welcome center. Tourists often enter the Library and Cultural Center to ask for directions to the O'Keeffe house, whose materials address the history of the Pueblo only briefly. Most leave without having learned anything about the unique history of Abiquiú as a Genízaro Pueblo and the experience of living there today. After two formal field seasons that focused on locating the historic foundation of part of the Library and Cultural Center, and excavations on private land focused on patterns of daily life, BACA collaborators also identified water as a key socio-political issue, an urgent site for youth reinvestment, and an essential component of contemporary water-rights adjudication. To this end, the tradition of Spanish-Colonial *acequia* irrigation (which is the subject of chapter 5 and 6) became the focus of my involvement in BACA starting in 2016.

Under the umbrella of BACA, partnerships have taken shape around a structure of accountability, a collaborative process that produces a meaningful and legible product, and reinvestment in the community. These pillars are, of course, the result of an investment in the theory of engaged research as outlined in Chapter 1, by myself, Dr. Sunseri, and the other graduate students working with the Abiquiú community (Alexandra McCleary and Danny Sosa Aguilar). However, what these pillars look like, how they work, and what they mean were derived from the cultural context of Abiquiú, relationship building, and shared understandings of the purpose of research.

Structures of Accountability

Structures of accountability in the BACA Project operate on two registers: formally, through official Memoranda of Understanding (MOU) with Abiquiú governing and cultural institutions, and informally, but just as importantly, through relationships with people as research partners, experts, and the "owners" of heritage.

Formal structures of accountability that respect the powers of institutions on the Pueblo are a central feature of accountability, particularly due to the history of Genízaro disenfranchisement by other governmental institutions over the last 200 years. The Merced del Pueblo de Abiquiú (hereafter "the Merced") is the formal, historic authority over projects on the communally held lands of the Pueblo. It is elected by the membership of the Land Grant and has administrative authority over research on communally held lands and publishing material regarding that research. The language of MOUs and Mandates performs an important role, emphasizing the power and autonomy of Abiquiúceño governance over research goals, practice,

and products. Periodic formal reports of progress and findings to the board at monthly and annual meetings makes BACA research an agenda item along the status of communally held range lands, land grant projects and finances, and other crucial aspects of the Land Grant community. This accountability is one way of not just acknowledging, but putting into action the recognition of Abiquiú as sovereign over its own heritage and resources.

Parallel to the Merced, el Pueblo de Abiquiú Library and Cultural Center (hereafter "the library") is a grass-roots, community-run resource that derives its institutional power from its centrality in the daily life of many members of the Abiquiú community, as well as a repository of information about the Pueblo. Although its board is not elected by the members of the Land Grant, it includes respected members of the Genízaro and Anglo communities that do not typically overlap with Merced leadership. Similar MOUs and public reporting events included local youth as a primary mandate and expanding the oversight of the project. The project co-wrote grants with the library, making the research financially accountable to, and in fact, controlled by the library, as it related to hiring teen interns and other public events.

However, these are not anonymous institutions, and they do not represent the totality of accountability present in the BACA Project. *People* are the core of accountability.
The Merced defined a de facto community of stakeholders in archaeological research through their ownership of property on the Pueblo, historically determined by relatedness to Genízaro vecinos. Partnership with the Library and Cultural Center further collected members of that same community with an emphasis on youth participants and those interested in the curation of heritage, as well as local non-Genízaro people invested in the history and "well-being" of the Pueblo. These organizations do not demand or guarantee "participation" in any research development or activities, but rather locate those to whom the project is further accountable. Different segments of this overall "community" hold different investments in the outcomes of the projects and different levels of ownership.

It is an explicit goal of my involvement in the BACA Project that any member of the Abiquiú community, broadly defined, has the power to halt research. Through discussions with people who live in Abiquiú, facilitated by the invitation of the Merced and library, the project attempted to communicate that all residents of Abiquiú had authority over the execution of research on their lands. This form of accountability was put into action in 2016 during Alexandra McCleary's preliminary research for her field season of the project. Alexandra was approached by a community member who insisted she stop work immediately. Although she had permission from the Merced, she stopped and immediately reached out to research partners for direction. This began a process of communication with that community member about the intentions of the project, directing Alexandra to find other sites and research questions for common ground between the institutional mandates and personal desires. In 2017, our accountability to individual people was less dramatic. Abiquiúceños visited us as we surveyed the communal rangelands, talked with us in the library when we were rained-out or doing lab work, and came to a community forum hosted by the library and led by BACA community interns. These venues, likewise formal and informal, provided opportunities for the continued accountability of the project to members of the community of Abiquiú.

I have sought this kind of accountability because in a tight-knit, small village community it makes sense as the minimum requirement to even propose research in the community. Furthermore, it is contextual with already existing forms of self-governance. This kind of person-to-person accountability is not necessarily appropriate in every setting, reinforcing the idea that engaged research is a mode of research, not a predetermined set of activities. Of course,

complete institutional and personal accountability is ideal, and the extent to which people felt empowered to hold myself and the project accountable is not absolute. A climate of openness and discussion had to be fostered through the tradition of two-way forums, rather than top-down presentations on the progress of research. Being included as an agenda item at Merced meetings allowed for formal public comment and questioning. Most important, however, was the relationship of accessibility BACA Project archaeologists cultivated by being invested visitors to the Pueblo.

Being accountable to people is a direct response to the plurality of the Abiquiú context. If oversight and input into what is the appropriate or respectful format of research on the Pueblo is limited to formal authorization, then the variety of experience with the colonial power structures of governance and research is erased. If Genízaro heritage is pluralistic so, too, must my accountability. Moreover, the local nature of governance through Merced and acequia association makes relationships an important aspect of institutional authority. The Merced, Acequia Association, and Library and Cultural Center are the institutions who requested work or were involved in this particular aspect of the BACA Project, but they are not the only institutions or collectivities on the Pueblo that demand plurality. Despite the hierarchical nature of the Catholic Church, groups like the *hermanos penetentes*, a lay order of Abiquiú community members, have much authority and important parts in the cultural life of the Pueblo. Emphasizing personal connections and holding the research accountable to the researchers as a responsible person mirrors this local structure.

Finally, I consider my community collaborators either as persons, wheather part of formal governing structures or as equal partners in the research endeavor. This doesn't mean that my research partners expected me to know everything they know, or that I expected them to do the learning necessary to master the craft of archaeology in order to execute the research without me—but that the diversity of knowledge represented in the project is held by specific people with specific areas of expertise. My area of expertise is knowing how to produce the kind of documentation legally considered "evidence," while having the time and resources to research and interpret the material evidence therein. My community partners have a huge range of other expertise, from personal and biographical knowledge of the landscape and its history, to Genízaro identity politics, agriculture, irrigation, and so on. Designing the project around this kind of joint expertise, rather than the strict transfer of information, means that even outside of formal documents, all elements of the research project are accountable by design to more than just myself, the archaeologist.

This is nevertheless, as all the goals of engagement are in this project, still an ideal. When I interviewed interns a year after the project, I asked them, "Do you consider yourself a collaborator or a participant in BACA?" They all said they felt like participants. "I do what I'm told and I don't fuss about it," said one. "I wasn't involved in what was actually going on but just doing work," said another. I attribute this to a failure of dialogue during the field season between interns and myself as their director. The challenges of the conventional hierarchical structure of field work as I was trained in it remain. I do consider, however, the perspective of Abiquiú youth considering themselves to be participants a step in the right direction, and appropriate to their engagement with the project as a "summer job." The creative products I discuss in Chapter 6, moreover, serve as a small counter-point to this outward expression of disengagement and an important part of collaboration practice.

Collaborative Process

The processes of collaboration I participated in (and sometimes facilitated) as part of the BACA Project grew from relationships of accountability generated by the people of Abiquiú. Collaboration began at the first spark of research interest, including the designation of areas of research that guided each field season: excavation aimed at supporting the expansion of the library (2014), daily use of exterior private space (2016), historical water use (2017), and pre-colonial land use (2018). These areas and questions were formalized with the Merced and library board. But, as projects progressed, the details of MOUs were not as important as the continual reevaluation and enacting of boundaries through collaboration. Flexibility and contextual responsiveness are the hallmark of the BACA mode, which aims to produce both epistemically and ethically sound research.

Archaeologists commonly justify their collaborative practice with ethical claims that it addresses the extractive and domineering dynamic of anthropological research, especially in Indigenous communities. But this ethical necessity is also an epistemic one. I follow Colwell-Chanthaphonh et.al.'s (2010) claim that archaeologists have both a moral imperative and an epistemic obligation to collaborate in order to demonstrate its necessity in the Genízaro case. Neither imperative is solely an academic concern. The respectful, useful, and accurate production of knowledge is a central to Abiquiú community members who want the knowledge produced by BACA to be ethically *and* epistemically good enough to do work in the present.

The collaboration at the heart of BACA's mode of engaged research does not exist merely because of personal preference (though it is my preference), the existing arrangements of the project (though they predate my involvement), or trendy do-good-ery (which is certainly a risk given my outsider status and political orientation). The kind of collaboration I engage in with people from Abiquiú grew from the context of extractive research countered by community-based projects since the middle of the last century. Mid-twentieth century research at Abiquiú removed objects and did not return them or the knowledge gained from their study. Later, community-based excavation at Santa Rosa de Lima by Charlie Carrillo countered that pattern by embedding the research in the Pueblo and using it to Abiquiúceños benefit (Stienbaugh 1978). This approach inspired many aspects of the BACA Project. Indeed, the only way to create data that adequately addressed the complexity of Genízaro history, present, and future was to do so through collaboration (Trujillo and Sunseri 2019).

The critiques of archaeology that generated the approaches to engaged research I outlined Chapter 1 have produced different proposals for the ethical goals of archaeological research (see also "Ethics in Professional Archaeology" n.d.). From this range, I believe it is necessary for archaeologies to be executed in a way that:

1. acknowledge and actively attempt to heal past harm caused by the discipline to the communities in and on which it has worked.
2. avoid the possibility of future harm.
3. actively work against current and future institutional inequality.

Philosopher of science, Allison Wylie (2015), has demonstrated how collaboration in archaeology (in the form of "dynamic pluralisms," see Chapter 1) creates more epistemically sound research programs. She does so to counter critiques that warn collaboration merely produces extreme relativism that degrades scientific objectivity. Robust collaborations empirically improve archaeology because non-archaeologists (in Wylie's argument, Indigenous

collaborators specifically) often occupy standpoints that give them unique insight on knowledge production. This argument recognizes that one goal of strong empirical research is to reduce error and bias by bringing to bear a range of perspectives on a question. With the situatedness of knowledge in mind, the ultimate outcome of robust collaboration is "transformative criticism," which is the hallmark of "good science" in a liberal democratic approach: "The wider the range of perspectives an individual or a community can bring to bear on a question, or in assessment of prospective knowledge claims, the more likely it is that error and bias will be exposed, that the full complexity of the subject and all relevant implications will be appreciated" (Wylie 2015, 205). Ultimately, "sustained interaction with…communities that goes beyond a respectful appreciation of difference can put archaeologists in a position to recognize just how purpose-specific, contingent, and tradition-bound are the epistemic goals and the methodological and epistemic norms that define what it is to do archaeological science" (Wylie 2015, 203).

As discussed in the first half of this chapter, Genízaro is a shifting signifier over time and across present-day groups. What remains in common between the many valences and meanings of Genízaro is the survivance of (re)formed communities in the face of slavery, re-location, and complex institutional racism. Gregorio Paul Esteban Gonzales (2018) has discussed the plurality of Genízaro identity as part of the persistence of Indigenous sovereignty and self-determination, despite the constraints placed on it in relation to the nation state. His analysis resists answering the question, "What is Genízaro?" Instead, he is in favor of exploring the tensions inherent in fixed identifications of Indigeneity under the rubric of state recognition and the historical imaginary of New Mexico made up of distinct Indigenous, Hispano, and Mexican cultures (the "tricultural corpus" mentioned at the beginning of this chapter). In his argument, the conventional practices of history, ethnohistory, and archaeology fix Genízaro within Spanish and Mexican temporalities which makes, "Genízaro bodies…perpetually historicized objects of study…solely discernible through imperial and state-centric chronologies" (G.P.E. Gonzales 2018, 6).

It is this work, by a self-identifying Genízaro scholar, that illustrates why collaboration is not just appropriate, but essential, for any anthropological archaeology of Genízaro heritage. The only way to break from these oppressive chronologies is to forgo "understanding" Genízaro, forgo asking the question *what* is Genízaro, and asking instead *how* is Genízaro—in order to foreground collective, pluralistic knowledge production. By opening up the research process to multiple perspectives and critiques (as Wylie argues it does), collaborative practices create the possibility for researching Genízaro as an experienced, living identity linked to pluralistic histories, with all the attendant meaning and violence and ambiguity of real contemporary life.

Collaboration is a productive method. It produces, in the ways mentioned above, multiple meanings, but it aims also to create new power dynamics and opportunities, shifting the sole purpose away from the production of knowledge for knowledge's sake to the production of knowledge as an active part of contemporary life. Audrea Simpson (2014) has influenced Gonzales' approach to Genízaro research through understanding the relationship between Indigeneity and knowledge production: "Knowledge, simply put, both constitutes and is constitutive of Indigenous peoplehood and, in turn, nationhood" (Simpson 2018, 4). As an Indigenous instantiation of standpoint theory, this further supports the connection between ethical and epistemic necessities in the Genízaro case. If knowledge is at the core of peoplehood and nationhood, its production is not just a source of "facts" about the past, but part of the process of being Indigenous, and thus not separable from the politics and desires of contemporary Genízaro people. Collaboration is a method which produces multiple forms of

knowledge *from* multiple forms of knowledge, and which produces "data" in excess of the scholarly form. As such, collaboration is the only research method which mirrors the production of meaning created by the term Genízaro throughout history and in the present day.

Meaningful Products and Reinvestment

Traditional archaeological research produces "data sets" and narratives: photographs, drawings, databases, written reports, and scientific interpretations of material phenomena. These data sets, through the conventions of the genre and scholarly discipline, circulate in tight trajectories. In order to make good on the epistemic and ethical value of our collaborative research, the project needs to produce meaningful products and reinvestment in Abiquiú. Collaborative research creates objects through the form of descriptive data, narrative, visual, and oral interpretation, and personal experiences that can strategically circulate beyond the power of the initial producer and make use of collectivity (see Chapter 6). The kinds of products my involvement in BACA produced took the normative genre of archaeological representation and put it in the context of Abiquiúceño needs and desires.

Archaeological work concerning acequias was requested because of the need for normatively authoritative documentation that could be paired with community knowledge in water rights adjudication cases (i.e. maps, dating, etc.). But acequias, as I will describe in the next chapter, are not just pieces of material infrastructure. They are seen by the local community and a growing group of acequia activists as sustainable traditions with important links to heritage, belonging, and commitment. Groups like the Acequia Association of New Mexico (AANM) and the Northern Youth Project (NYP) have been working with youth in particular to re-invest in acequia culture. These programs inspired my approach to acequia research, especially in the creative products the project developed (discussed more in Chapter 6). As such, I consider the products of this research meaningfully informed by existing community projects.

In 2016, the NYP summer program in Abiquiú focused on acequias. Students from Abiquiú and the surrounding area collected trash from acequias throughout the county. They then did what essentially amounted to an archaeology of the contemporary on the assemblages. They sorted the trash by time and discussed why different communities acequias would have different trash in them. Throughout the following fall and spring, students continued working with the materials of the acequia to build sculptures that would be installed outside the Española Arts Center. This approach engages youth in the history and traditions of acequias, while also creating opportunities for service and creative expression.

On a state-wide level, but with particular connections to Abiquiú, the NMAA, runs a youth-oriented acequia education program called Sembrando Semillas ("sowing seeds," in English). Around 2017, the program began a transition from a primarily youth-based program to "an inter-generational network or learning community, of families, youth, and mentors who work the land and practice acequia agriculture and values" ("Sembrando Semillas" n.d.). The program has connections to Abiquiú families who use acequias and are members of the association, the library, and cultural center. At the same meeting in March 2017, when I presented myself to the acequia association of el Acequia del Pueblo de Abiquiú, three youth members of the community, representing Sembrandos Semillas, requested a seat or internship with the association. During fieldwork, our field crew and interns joined Sembrando Semillas students for a campout in the communal lands of the Land Grant. The intergenerational focus is a shared framework that grows out of local traditions of sharing and teaching, and represents an important mode for creating both meaningful products and reinvestment.

As I continued to develop the idea of investigating archaeological acequias, multiple members of the Abiquiú community about talked about maps. Two government agencies had made maps of the active acequia systems in the area in the interest of land management: the county engineer and the soil and water conservation district. The county engineer had used aerial photography to create GIS shapefiles of acequias that did not include Abiquiú, but Marcos Valdez (director of the Rio Arriba SWCD) had led a more community-oriented approach to mapping. He had student interns and CCC youth program volunteers meet with mayordomos to map acequias and log conditions. This produced GIS shapefiles with more than mere spatial information (invasive species, erosion condition, etc.) and compiled historical information gained from interviews with the mayordomos. That the work was done by local youth reinforced the local nature of the data and created a connection to the technology used, another model project for the BACA water season.

However, both data-sets remain in filing cabinets and computer hard-drives in government agencies. While technically public, getting to them requires the time and effort of making an appointment, interacting with a government official, and understanding the technology and short-hand used to produce them. The goal of the products of the BACA water project have grown out of this bind. We aimed to produce a local archive that, while existing partially in governmental records, could be locally produced and held, and therefore both richer and more accessible.

I was especially inspired toward this end by literary and Chicanx scholar, Patricia Trujillo, who spoke at the 2016 Genízaro Nation Conference at the Abiquiú Plaza. Patricia Trujillo spoke about her personal journey into the archives of her Genízaro ancestors and the paucity of information on the women in her family. She used creative writing to "create the archive" that does not exist in official repositories. Both the normative archaeological products and the creative output of the BACA water, respond to this Genízaro-specific need to create the material that doesn't exist in governmental documentation.

The goals of meaningful products and reinvestment are linked (or, they "articulate"). One form of a meaningful product is reinvestment in the community, in its many forms. This again grows out of a history of extraction and disempowerment, but also mirrors the state of survivance that Genízaros in Abiquiú have managed strategically for hundreds of years. Reinvestment is at the core of the process of collaboration in BACA as it is meaningful to many Abiquiúceños, and it came to look the way it did during the BACA because of other successful community-based projects in the area.

Conclusions

My goal in this chapter has been to demonstrate the interwovenness of the history of present of Genízaro identity with the mode, or framework, of engaged research within el Pueblo de Abqiuiú. Beginning with the Spanish formation of Genízaro to describe the idealized assimilation of Indigenous people into proper Spanish cultural performance, and ending with the contemporary celebration of the identity as a unique and meaningful form of self-identification in present day New Mexico, the concept of Genízaro has been an important aspect of identity for people in Abiquiú since 1754. Archaeological research into this pluralistic identity formation has moved away from models of assimilation toward more complex understandings of the ethnogenesis at play in historical instantiations of Genízaro communities. However, to fully

engaged the contemporary realities of Genízaro experience, Indigenous theories of survivance need to be articulated with the materialities of ethnogenesis.

This understanding of Genízaro survivance comes from the work of self-identified Genízaro scholars and underpins the development of collaboration in Abiquiú. Engaged research in Abiquiú took shape around the pillars of accountability, collaboration, meaningful products, and reinvestment in the community because of already existing structures. These structures and those developed for the BACA Project are directly responsive to the history of disempowerment, extractive research, and survivance evidenced in Genízaro heritage. This is the "why" of engaged research in this specific mode for the project and my involvement in it. The next chapter will hone in on the institution, infrastructure, and culture of the acequia as the impetus for the "how" of engaged archeological investigation of historic water management in Abiquiú.

Chapter 5: Paying Attention to Abiquiú's Acequia Lands

We are going to "walk the ditch." Virgil is *mayordomo* for el Pueblo de Abiquiú. This means that he is in charge of water for the *parcientes* who use water from the *Acequia del Pueblo de Abiquiú*. Virgil is also a historian, activist, cowboy, father, grandfather, tinkerer, collector, and farmer. He's consulting today with a team of local college students, who are mapping acequias, organized by the Soil and Water Conservation District (SWCD) district manager, Marcos Valdez. They hope their maps can help mayordomos develop maintenance plans and better manage their acequias in East Rio Arriba County.

When I arrive, the SWCD interns are sitting under the awning of the Pueblo de Abiquiú Library and Cultural Center, which is one of the oldest low adobe buildings on the plaza, directly across from the iconic Catholic Church of Santo Thomas el Apostol. Iconic because it looks like those kinds of churches in Georgia O'Keeffe paintings. It isn't "the" one (that's in Rancho de Taos, another Genízaro Pueblo), but O'Keeffe did live down the street, and her house is open for tours that bring big air-conditioned black buses up the dusty hill and around the plaza for a quick photo-op. These students don't bat an eye at the tourists. Instead, they keep asking Chavela where her dad, mayordomo Virgil, is. He eventually arrives in a dusty but new red truck and tells us to follow him down the road. We walk and weave our way around fences and homes, down to the diversion of the *acequia madre* for the Pueblo.

We follow *el Acequia del Pueblo de Abiquiú* past the Northern Youth Project (NYP) garden toward the water storage tank just west of the acequia, dug into the ground to capture water during high flow season and pump it out to plants the rest of the year. The interns photograph this tank and take a GPS point before moving on into the willows and other invasive species, down to the *desagüe* where leftover water floods back into Abiquiú Creek from whence it came. Narrow wooden foot bridges allow crossing here and there, but the ditch is only about a foot wide and maybe as deep, so they hardly seem necessary. It's only June though; the monsoons haven't hit. Two months later, I will see the same ditch overflowing into the post office parking lot beyond this desagüe , the result of a flash flood from the source of the creek miles to the south.

Once the interns have marked the desagüe in their GPS unit and photographed and logged the ditch condition (invasive species, erosion, sedimentation, etc.), we reverse course to follow the ditch the other direction back towards its source at the creek. To the south of the main ditch, Virgil points out an old, overgrown ditch he calls "el acequia de molina." *Molina* means mill and he suggests this acequia is so called because there used to be a grist mill on it. Virgil imagines what it would be like to build a replica mill, grow grain with the same water that runs it, and sell it to tourists while teaching them about Genízaro Pueblo life. He wants the interns to walk the ditch in order to have a good map and documentation of this section so he can make a case (and maybe receive grant money) to restore it. A significant portion of the ditch winds along a rocky hillside inaccessible to backhoes. This part needs to be dug by hand. Virgil's annual maintenance crews have dwindled as parcientes pass on their water rights and attendant maintenance responsibilities to unwilling relatives, or fail to pay dues or hire peons. The acequia association and users manage to keep the acequia madre flowing, but there are few resources for restoration or expansion projects.

On acequia de los molinos the water dries up: a small piece of wood serving as a check dam directs all the water to the NYP gardens and desagüe . The narrow ditch is filled in with debris, trash here and there, and a giant boulder that has somehow made its way into the center of the acequia. It opens onto a wide field filled with grass, then mostly disappears. We tromp through the grass and suddenly, amidst the dense tall grasses and giant cottonwood trees, we are on Abiquiú Creek. It is about four feet lower than it used to be Virgil tells us. Forest fires further up the watershed and the over-hunting beavers and removal of their dams from the creek have made erosion a huge problem.

We stand looking into the clear water with the high desert sun dappled on the banks and Virgil starts a sermon. "Listen to the land," he says, "and it will tell you what it wants." The students appear somehow both inspired and bored. I hope this means they are mostly inspired and also just teenagers. I am definitely inspired, not only hopeful that many water issues on the Pueblo can be managed by listening to the land, but also that it brings those issues back to their physical materials and historical forms.

Introduction

The acequias I walked with Virgil are part of an Indio-Hispano tradition that articulates with the land-use practices of Indigenous people, the occupation of the area by Spain, then Mexico, then the United States, and the foundation and survivance of Abiquiú as a Genízaro Land Grant. The acequias are part of contemporary practices of irrigation, infrastructure, governance, and heritage. The historical context of acequias is as important as their place in contemporary daily life and large-scale political ideology around water and resource management.

In this chapter, I walk along the ditch in its many registers: material, cultural, infrastructural, communal, and personal. I expand the acequias historical context in order to place it in the landscape of heritage, policy, and water management in the present. Acequias are the specific tradition, landscape feature, and historical object that I interacted with as part of the BACA collaboration. Contemporary and historic acequia use, maintenance, and governance intersects with the history of Genízaro identity in crucial ways. Ultimately, archaeological research becomes part of this context, alongside the Genízaro modes outlined in the last chapter.

In the first section of this chapter, "Acequia Lands," I describe the phenomenon and historical trajectory of acequia practice from the first occupation by Spanish Colonists of the Española Valley to the present day, oriented within a longer tradition of Indigenous land and water use in the region. Then, in the second section, "BACA Means," I describe the means by which I approached these socio-material phenomena in the Abiquiú landscape.

Acequia Lands

> *"El agua es la sangre de la tierra"*
> *(water is the blood of the land)*
> (Arellano 2014, 149)

Acequias are hand-dug, gravity-fed irrigation canals that people in northern New Mexico often call "ditches" in English. In recent years, they can also be machine-trenched and/or

concrete-lined. They draw water off of natural sources such as springs, creeks, and rivers to water agricultural fields and house gardens. The *mayordomos and parcientes* (the designers, stewards, and users) of these systems use *presas* (check dams) to control the direction of the water and flood fields via *sangrias* (laterals), or return unused water via a *desagüe* (outlet) to the source further downstream. Presas can be mechanical crank dams, the reused cover from an oil can fit vertically along the ditch, or small berms of mud and rock covered with an old feed bag or piece of plastic. Acequia systems can include many presas, *cañoas* (flumes) to cross *arroyos* (culverts), and can make water appear to flow uphill while following the edges of hills and slopes in order to maintain constant flows across varied topography. In addition, it is worth noting that acequia language is hyper-local and fluid. I use a generalized set of terms throughout this chapter to orient the materiality of acequias to its Hispano origins (see Rivera 1998, 227-32 for an excellent glossary of acequia language from historic to contemporary times and Rodríguez 2006, 155-57 for a glossary of acequia related Hispano terms).

The ditches erode, silt up, or fill with debris while water flows during the spring and summer months and are dry in the fall and winter. Ideally, they are made new every year, watched over and adapted by the mayordomo and parcientes. Before the irrigation season every spring, groups of workers, traditionally the parcientes themselves but also *peóns* (hired workers), clear the ditch of debris and sedimentation in the *limpia* (annual spring cleaning). This can bring people together around food and music at breaks and celebrations for the *primer agua* or opening of the waters (Crawford 1993; Rodríguez 2006). Many acequias in New Mexico are 200 years old or more, and have undergone more or less constant construction.

In Abiquiú, acequias are used to irrigate gardens, fields of crops, and grazing land. The *acequia madre* (main ditch) of the Acequia del Pueblo de Abiquiú, brings water from Abiquiú Creek into the village to irrigate *tiras* historically called *suertes* (long narrow fields granted to individuals) measured in Spanish *varas* (roughly a yard, or thirty three inches). The acequia Virgil called el Acequia de los Molinos also runs here. To the south, above the village on a large mesa that becomes the foothills of the Jemez Mountains and the Santa Fe National Forest, another set of acequias divert water from Vallecitos Creek. These acequias run along the east and west side of the *merced* (communal lands). Until the 1940s, when the year-round flow of Vallecitos Creek became seasonal, they irrigated hundreds of acres of fields and dozens of homesteads. Now, a smaller number of parcientes use this water for irrigation on private and communal land. The merced acequias were the focus of the BACA water season of fieldwork in 2017.

These, and the approximately 700 other acequias in northern New Mexico (estimates vary: see Crawford 2003, 66-37; Neuwirth 2019), are a key feature of resource management and tradition tying together past and contemporary communities and watersheds. As the title of Jose Rivera's book *Acequia Culture* (1998) suggests, acequias should be considered not just a technology, infrastructure, or agricultural resource, but also a suite of long-standing cultural traditions. The acequia centers around the communal use of water under the concept of *repartimiento* (sharing). A council or acequia association (formally recognized as an independent political subdivision of the State of New Mexico) votes for a mayordomo who oversees this division based on need: how much land needs to be irrigated by each parciente and when. This allocation is based on a system of values oriented to greatest good, rather than first right, as codified in Spanish Colonial water law (see below and Chapter 6). The mayordomo allocates water by hour and day, and the members of the ditch follow the schedule or are subject to penalties. Mayordomo and acequia activist, Juan Estevan Arellano, describes acequias as a

democratic form of governance relying on the principles of *repartimiento* (distribution), *convite* (food), and *cooperación* (cooperation) (Arellano 2014, 149). These traditions are, "rooted in history, memory of which is passed on orally and through practice from one generation of irrigators to the next" (Rodríguez 2006, 31).

Acequias are also a focal point of ongoing activism throughout northern New Mexico to preserve Hispano and Indio-Hispano traditions and agriculture in the region, as well as encourage youth engagement with cultural heritage and sustainability. The New Mexico Acequia Association (NMAA), for example, is a state-wide advocacy group with a mission to "protect water and our acequias, grow healthy food for our families and communities, and to honor our cultural heritage" (New Mexico Acequia Association n.d.). Through initiatives like Sembrando Semillas ("sowing seeds," focused on youth) and Esquelita de las Acequias ("acequia school," focused on service learning), the NMAA upholds the idea that acequias are a culturally important practice as well as an environmentally sustainable one. In fact, in NMAA literature people are "from acequia communities" in the same way they are from places.

Throughout northern New Mexico in particular, acequias are symbolic of a unique form of Hispano culture. Scholars and parcientes of New Mexico's acequias, José Rivera (1998), Silvia Rodriguez (2006), and Juan Estevan Arellano (2014), all describe how acequias and attendant social and cultural practices create a sense of place, or *querencia* (see also G.P.E. Gonzales 2018; M. Gonzales 2014b). Querencia, translated as love of land or sense of place, connects acequia practice, history, and culture to what users consider the unique state of being from their land. The relationship of irrigation to the physical topography and biology of the land, as well as the values of its governance and heritage of associated rites and rituals, draw the past and present together through the cleaning of ditches, the flow of water, and flooding of fields. There is an explicit tension within this temporality, however, as the nature of the acequia as a cultural institution suggests that it can only be preserved through the continuance of practice. Arrellano has written that "historic preservation" will "signal the death of acequias" (2014, 148). The current laws governing historic preservation freeze the acequia in time and subject it to restrictions that sometimes conflict with contemporary needs and practices, rather than providing a living context for its continuation. The acequia is a location of complex intra-action, between *mayordomo* and *parciante*, between each acequia and others from its source, between each parciente and the flow of water pulled and pushed by gravity, between all these and the soil and the sky and history.

The dual function of acequias as social institutions and as physical infrastructure is at the heart of BACA and my engagement with historic water practices on the Pueblo. To understand one aspect, we must acknowledge and seek to understand the other. In that spirit, I move now to a description of acequias in New Mexico as both cultural practice and essential infrastructure, as real things that people built and continue to use today to support their livelihoods and to connect with their ancestors and the land, but also as symbolic landscape features that mark Spanishness and are a strategic part of Genízaro survivance. In what follows, I will track the development of acequias as an essential part of Spanish Colonial land-grants. The two institutions go hand-in-hand in the strategies of Spanish settler colonialism and are integrated and adopted through the Mexican and American occupations to the present day. Acequias are deeply embedded in struggles for rights to both land and water in Abiquiú, and as such are implicated in complex, non-normative claims to Indigenous sovereignty.

WATER

Figure 5.1 (clockwise from top left) Soil and Water Conservation District interns jump el Acequia de Abiquiú; an active acequia ditch runs in early summer through juniper just south of the Abiquiú Land Grant boundary with the Santa Fe National Forest, Virgil Trujillo demonstrates the principles of acequia management to BACA volunteers; Water runs towards Abiquiú creek near the end of el Acequia del Abiquiú.

I could begin the history of acequias when Moorish invaders overtook the Visigoths and brought Islamic religion and traditions, including ditch irrigation, with them to the Iberian Peninsula, now called Spain (Glick 1970). I could even begin earlier, when Persian and other

Islamic technologies influenced the Moorish people in West Africa (Arellano 2014). From the perspective of Abiquiú, I could simply start with the arrival of acequias to the so called "new world," or more proximate yet with Juan Oñate's invasion of northern New Mexico and settlement near Ohkay Owingeh (San Juan Pueblo). Here, historical records indicate the first acequia in New Mexico was built in 1598 at the confluence of the Rio Grande and Rio Chama, a mere twenty miles away from what would later become el Pueblo de Abiquiú (Wozniak 1998, 13) .

Acequia history has many beginnings and, like the ditches themselves, many branches (Bestué Cardiel and Gutiérrez Carrillo 2015; Guinot Rodríguez and Selma Castell 2002; Parker 1951; Rumble 1937; 1937). Rather than start in Spain, we could start understanding the history of water use and management in Abiquiú from a more local perspective. Acequia builders did not appear in northern New Mexico to a scene devoid of agriculture or irrigation (or, as I established in the previous chapter, devoid of people). Tewa Pueblo people and their ancestors have been using the land of northern New Mexico to grow food for thousands of years (Anschuetz 2007; Eiselt et al. 2017).Tewa Pueblo people, including those at Okhay Owingey (the nearest occupied Pueblo to Abiquiú in contemporary times) were using both dryland and ditch irrigation to grow crops when Oñate arrived. Dryland farming strategies include contour terraces, grid gardens, check dams, and gravel mulch gardens. There is debate as to the breadth and intensity of active ditch irrigation in the southwest before the time of Spanish Colonial occupation (Cordell 1984; Eiselt et al. 2017; Rodríguez 1990, 2006, 12-13; Wozniak 1998). Regardless, it is certain that, "Contour terraces, grid gardens, check dams, and gravel mulch gardens were part of an extensive agricultural strategy" (Wozniak 1998, 9). At the same time, Hopi, Apache, Comanche, and Ute people, among others in the area, moved through these cultivated landscapes with their own set of relationships to subsistence and waterways (Eiselt 2006; Hämäläinen 2008). Mobile groups used rivers, creeks, and springs as tactical and spiritual markers in the landscape, relying on them for water as well as orienting movement through the landscape (Danis 2010; Montgomery, Fowles, and Atherton 2017).

For decades, archaeologists have been investigating water management as it relates to agriculture in the southwest (Toll et al. 1995). By looking at built features and evidence for canals at small and large scales, as well as investigating the properties of soil and remains of seeds and pollen, archaeologists have determined (more or less) that before Spanish invasion, people in the southwest exhibited a huge variety of strategies for managing water. This work has primarily focused on either confirming the potential capacity of dry and terrace farming, or asserting the presence of irrigation canals. These interests are implicitly motivated by water rights adjudication for Indigenous communities, especially the Tewa Pueblos in northern New Mexico. Canal studies in particular are rare in northern New Mexico given the continued use of canals (see Adler 2015; Moore in Toll et al. 1995), many of which were likely built before Spanish occupation and then continuously used through Mexican and American occupation to the present day, in contrast to studies of Hohokam irrigation (Glen Rice 1998; Hill et al. 2015; Purdue 2015; Purdue and Berger 2015a; Tianduowa, Woodson, and Ertsen 2018; Woodson 2016; 2016;). Slowly, new archaeological techniques have been applied to the study of these ephemeral features that persist to the present day, and thus their Indigeneity has been ignored or contested.

Add to this Indigenous context the fact that the acequias that Oñate had built in Española, while part of a codified system of colonization that I discuss below, were also built by Tlaxcaltecans hired by the expedition (Arellano 2014; Rivera 1998). These Indigenous people

had already been blending the Spanish acequia technology with their own traditions of irrigation in what is now called Mexico by the time they arrived in what Oñate would name Española (Rodríguez 2006). Pueblo people integrated the acequia technology and practice into already existing agricultural regimes and, by all accounts, continued to use acequias even after the Pueblo revolt of 1680 (Wozniak 1998). Rodríguez calls the socio-cultural process by which acequias came to be the dominant form of irrigation in northern New Mexico, "acequization," which, "gradually superseded original farming techniques as it appropriated natural and previously explored lines of drainage into local acequia systems…[and] involved the syncretism of Old and New World ingredients" (2006 2,13). From a review of historical legal documents surrounding acequia use, Rivera likewise asserts the joining of acequia technologies with existing Pueblo waterways was common in the early years of Spanish occupation: "If a ditch had already been dug by Tewa or other Pueblo Indians but later abandoned, they were as likely to reopen and expand it as to search for another location" (Rivera 1998, 2).

This is all to say: acequias are not *merely* Spanish. They are "always already" part of a flow of ideas, people, and practices. When they became embedded in "Spanishness" on the Iberian Peninsula, they were already a pluralistic form of Moorish import. By the time acequia practice was adopted in the Americas (both North and South), they were an inherited technology, used strategically to symbolize proper Spanish identity. This material illustration of proper Spanishness interrupts, and is interrupted by, Indigenous forms. Especially in Abiquiú, where we know the first engineers, builders, and users of the acequias came to the land with their own Indigenous traditions of water management and irrigation. This context requires that we think of acequias not just as a colonial practice, but as an "articulated" practice (see Chapter 5 Introduction). As acequia building, use, and practice reach northern New Mexico, Genízaro and Pueblo people strategically link them to existing Indigenous water practices (See especially Sunseri 2009; 2018).

LAND

To understand the Abiquiú-specific use of acequias over time, we need to understand the legal and conceptual contexts in which they have operated since the foundation of the Abiquiú Land Grant in 1754. In the Spanish Colonial ideological and legal, "doctrine of discovery," lands could be claimed by rituals of possession that included reciting formal language and planting flags or other markers (Miller et al. 2010). Building in the landscape and bodily inhabitation, while not necessary for claiming space in this ideology, are a significant process of settler colonialism that builds on the idea that intervention in the landscape serves to take possession.

Before the Pueblo Revolt of 1680, Spanish strategy focused on converting Indigenous people into Catholic citizens of the Crown, rather than sending in outsiders to occupy the land. Before the *reconquista,* the application of the *Recopilación de las leyes de los reynos de Indias* (the Law of the Indies) resulted in land alloted to settlers for grazing, but not for building permanent structures or irrigating fields, and in certain places outlined specific rights for Indigenous people (Arellano 2014). After the 1680 Pueblo revolt, these few Spanish settlers and missionaries were driven from Northern New Mexico. The *reconquista* (re-conquest) of the area began in 1692, and this strategy and the practice of *encomienda* was replaced with the formal granting of lands by Spanish Governors as proxies of the Spanish King to those considered *gens de razon* (men of reason) within the racial hierarchy of the sistema de casta. These Land Grants were organized around three components, *ejidos* (commons), acequias, and *suertes* (literally "luck," meaning the

land allotted to people for subsistence farming). This structure of granting began organizing parcels of land into particular conceptual topographies that including grazing land, areas of forest or "highlands" for gathering wood and hunting, and irrigable land close enough to a water source for an acequia to reach (Arellano 2014; Ebright 1994; Briggs and Van Ness 1987).

In 1742, Fray Francisco Delgado moved twenty four Hopi Tewa to the mesa at Abiquiú (remembered as *Plaza de Moqui*). In 1754, Abiquiú became the third formal Genízaro Land Grant, when thirty four Genízaro families obtained a grant by petition (Cordova 1979; G.P.E. Gonzales 2018). The 1783, Plan de Pitic, demonstrated the ideal settlement on the northern frontier and re-asserted the laws of communal resource management from the Law of the Indies. This includes the normative form of a plaza with a church and acequia. While Abiquiú would have already been established by the issue date of this document, it serves as an outline of the Spanish requirements that would have been placed on Genízaro land-grantees. Governor Gachupin was strict about following the Law of the Indies when establishing land grants, so these Genízaro settlements were subject to the initial requirements of, among other things, acequias (M. Gonzales 2014b).

Under Mexican occupation, the community in Abiquiú continued their lives as usual with one significant difference: under Mexican law, Genízaros became full land-owning citizens, which meant land that was previously held communally became private allotments (Magnaghi 1990; Poling-Kempes 1997). In 1848, when New Mexico and other southwestern lands were ceded to the United States of America by the Treaty of Guadalupe Hidalgo, Land Grants were respected though many were never granted official land patents and were sold off piecemeal under less than honorable circumstances, fueled in part by aggressive land speculation in the first 100 years of occupation by the United States (Ebright 1994). As Hispano and Indio, the Genízaro people of Abiquiú continued to navigate a changing economic and cultural landscape using multiple ways of thinking about property, land, and resources. In 1928, the people of Abiquiú were given a choice between legal designation as an Indian Pueblo or a New Mexican village. They choose the official name of the Village of Abiquiú, in part because of their recognition of the discrimination and ill-treatment of Indigenous people, probably known through personal experience and those of relatives in nearby Pueblos and reservations. Until that time, children from Abiquiú attended an "Indian school," suggesting the continued recognition by the government of Genízaro people's status as Indigenous (Poling-Kempes 1997).

This choice inadvertently led the Pueblo into financial trouble, as newly levied taxes based on non-Indigenous status of the land-ownership of the communal *eijdo* lands in the mid-1930s remained unpaid, leading to government seizure of the land. Adapting to new forms of resource ownership and government identification as a primarily Hispano place, a group of residents formed the Abiquiú Cooperative Livestock Association in 1941 and were able to buy back the land. Due to the government policies of systematic elimination, containment, and cultural erasure of Native people, a category like Genízaro, which is equated with "Indian," becomes a legally disadvantaged identification in the 20th Century.

Traditional land use on land grants was slowly eroded, challenged, or made precarious under Anglo land ownership ideology and modern environmental policy (Kosek 2006). This history articulates the issues of "tri-cultural" identity discussed in the previous chapter:

> Cultural definitions used today by anthropologists, historians, ecologists, and other academic disciplines have defined cultural land use in New Mexico as either Hispano or Pueblo Indian. However, a lack of deeper understanding of localized

> human ecology in northern New Mexico has resulted in land management policies by the US Forest Service that have failed to recognize the historic land use rights of many land grant communities (M. Gonzales 2014a, 594).

WATER

Establishing acequias as part of Land Grants were guided by law as well as custom in Spanish-occupied Nuevo Mexico. Spanish laws and acequia practices that came into being during Spanish Occupation considered water to be inseparable from the land, and access to it a basic human right: "During the pre-territorial periods, water was viewed as essential to the sustenance of the community, not as a commodity property subject to the forces of economic market and governmental regulation. The allocation or irrigation was communal not private" (Rivera 1998, 40). Medieval Spanish writing in the 1200s pronounced that rain and river water are held in common, establishing a small public easement of land around shared acequias (Arellano 2014, 80; Rivera 1998). The communal use of water resources ultimately were codified into law in the 1573, *Ordenzas de descubrimientes, neueva pobación, y pacificación de las Indias,* and the 1681, *Recopilación de las leyes de los reynos de Indias* (The Laws of the Indies). These documents state that all waters shall be common to all inhabitants and that Indigenous rules governing water distribution should be maintained (Arellano 2014, 81). These documents outline Spanish rules of colonization, and in so doing demonstrate the resource ideologies at play when establishing land grants and using acequias in New Mexico. These laws also applied to Pueblo acequias as well as land grants. However, all flowing waters were property of the King, and without explicitly being granted rights through a *merced de aqua, the* use of water for irrigation (Indio or Hispano) was a usufructuary right (Wozniak 1998, 30). The power of these laws should be taken with a grain of salt. While they give insight into the overall ideologies of colonial village development, "most scholars agree that local arrangements evolved from a process of customary usage rather than through a set of prescribed laws or ordinances" (Rivera 1998, 33).

A church and acequia are the first things that were established in Spanish settlements, both out of practical necessity and symbolic power (Rivera 1998). One requirement of land grant recipients was that land be cultivated within a certain amount of time, making the establishment of an acequia system crucial to the continuance of the grant (Wozniak 1998). This makes the acequia one of the first symbolic forms of Spanishness for Genízaro land-grantees. In fact, the Abiquiú grant, "was made only after an investigation determined that the permanent stream running through the pueblo had the capacity to irrigate all arable lands along the creek" (U.S. Surveyor General, Case 140 in Wozniak 1998, 47).

Rivera (1998, 9) claims that these Spanish water laws outline an "ethos of sustainability" embedded in Spanish colonial land-management, and calls Spanish occupation on the northern frontier one of "water-based colonies." I would caution against his use of the modern concept of sustainability without a more in depth investigation of the history of the term (see du Pisani 2006). However, the idea of "water-based" colonies underscores the importance of water and water infrastructure in the practical and symbolic assertion of Spanishness in Abiquiú.

Although New Mexico was part of the land ceded to the United States of America in 1848, The New Mexico State Constitution states that via the Treaty of Guadalupe Hidalgo Mexican rights to "liberty and property" will be protected, but not the continuation of Mexican Laws that specifically govern those rights. This means that state governments maintain authority to determine which Mexican laws to uphold and which to ignore. In the case of acequias, this

means that laws governing the communal or shared use of ditch irrigation vary from state to state, and water regulation during US occupation shifts away from local *ayuntamientos* to county *acaldes* and governors (Arellano 2014).The formalization of this in New Mexico was guided by the Kerney Code and other legislation that formally gave acequias and their communal governing bodies legal standing (30th Congress, 1st Session [1848], House Executive Document No. 60:219 in Wozniak 1998). The code states that acequias have a distinct class of rights under the Treaty which would follow Spanish and Mexican law and custom. However, these codes allow, for the first time, the separation of water from land, and the introduction of the idea that water is a commodity (Arellano 2014, 122). American laws since have slowly shifted an understanding of the resource to be, like minerals, oil, and other commodities, separate properties which can be owned privately even when related to the common good. In 1945, legislation requires acequia associations to perform more specific administrative functions, posing a challenge to the already under-resourced organizations. Then, in 1965, acequias were made subdivisions of the state and therefore applicable for public funding.

Ultimately Abiquiú, as well as the rest of US occupied North America, experienced "the legal transition of water as a substance to which all humans have a right, to water as a commodity available to the highest bidders" (Rodríguez 2006, 1). Virgil and David identified this tension between Indio-Hispano and Anglo views of resources again and again as the main source of conflict between acequia users and the State Engineer, the institution charged with adjudicating water rights (see below). It is also this concept of what water is, what it should be for, and how it should be managed, that guides a material exploration of the historic acequias on the Abiquiú land grant.

WATER + LAND + WATER

The water and the land are historically, culturally, and legally enmeshed. Rodríquez reminds us that the acequia also is a dual site of agricultural infrastructure and spiritual processional/practice: "The irrigated landscape becomes the sacred landscape. The pathways of irrigation and the pathways of procession intertwine" (2006, xxiv). Rivera might suggest that we call it a triadic site to encompass the forms of governance that parse communal and individual rights and authority to a resource that is considered communal and indivisible under the old Spanish laws. Physically, the form of acequia technology has been codified for hundreds of years but, as a practice, acequia design, use, and maintenance is tied to the idea of what water is and how it works. In the present, exploring the historic dimension of acequias both in use and dormancy draws us into, in a material sense, relationship with the land and water as an inexorable part of being in the landscape.

Arrellano's (2014) concept of "acequia literacy" is interesting here. He uses it to call for more education about the function and meaning of acequias in contemporary communities in order to support their continued existence. He also calls "historic preservation" the death of acequias, because they are living and breathing things, practices which must be enacted to exist, not fixed to be preserved. But beyond that, acequia literacy includes an understanding of their material relationship to the past, to how they hold and structure practice which has adapted to changing realities as much as it has been upheld as a tradition.

Archaeologists rely on an assumption that the ground, artifacts, and architectures hold memories, that physical traces in material remember, and prompt us to remember, past states of being. Acequias then have a two-fold relationship to memory, and this literacy, being able to read the water and the soil, brings the acequia community into conversation. Rodríquez claims,

"The modern players in the ongoing drama of reparto, or *el repartimiento de agua*, understand their present condition as rooted in history, memory of which is passed on orally and through practice from one generation of irrigators to the next" (Rodríguez 2006, 31). Could archaeological attention expand this practice, allowing modern players to continue to learn directly from the memory of the past that is embedded in material culture? Or expand the way they are already learning from the material culture, because engaging the landscape through irrigation is already a materially entangled experiential process? Asking these questions are prompts to collaboration, as only members of acequia communities can close the loop between archaeological knowledge and acequia practice. Moreover, archaeologies of acequias can hold potential violence in erasing or foreclosing on existing knowledge. Research created and produced by and with acequia practitioners helps foreground the living qualities of these institutions and features in order to prevent the kind of death by preservation Arellano fears.

The state of acequias as resource infrastructure, agricultural technology, cultural object, and governing institution makes particular modes of engaged research possible. In the next section, I describe how archaeological survey of Abiquiú's historic Merced acequias followed from the multiplicitous states of acequias. The means of carrying out research are derived from the modes discussed in the last chapter, alongside the particularities of acequias as outlined above.

BACA means

The means of this project (what we did) grew out of the modes (the theoretical framework for ordering parts, as in Chapter 4), and have been the foundation for the meanings produced (the subject of Chapter 6). The cultural and historic context of acequia practice guided the methods we used in developing and executing collaborative archaeological research in the Pueblo. We chose to develop the "BACA Water" research program, and document and represent historic acequia systems in the Abiquiú *eijdo,* based on a community sense of place and identity, as well as existing acequia projects by local and state institutions utilizing Abiquiúceño knowledge. The suite of methods followed from the dual nature of acequias, as articulated by community partners and scholars: acequias are both a physical infrastructure and a continually embodied practice. The means of doing research I describe here represent this plurality by collecting data on the materiality and sociality of acequia features and practices. The experience and outcomes of collaboration necessarily inflect my interpretations even as I write of them in apparent isolation. Thus, in my accounting of what we did, I will also demonstrate how collaborative relationships were at play throughout the execution of research and what goal for engagement these methods address.

The BACA water project that I organized was part of the larger Berkeley-Abiquiú collaboration I outlined in the previous chapter. In addition to building on the ongoing structure of accountability and general approach to collaboration, the BACA water season followed three previous rounds of fieldwork led by Dr. Jun Sunseri and Alexandra McCleary. The first summer of formal BACA fieldwork, in 2014, focused on the excavation of an adobe foundation connected to the library itself. This oriented work directly to the library's goal of expanding its space and recreating the now collapsed adobe. It also centered work on the plaza where archaeological investigations would be highly visible and easy to access by all residents of the Pueblo. Over thirty youth interns from the Pueblo were paid for their participation in excavations, which set a standard for the valuing of youth labor. Through informal site tours and

a formal community forum held at the nearby Abiquiú Inn near the end of excavations, many members of the Pueblo and the surrounding area were invited to comment on the methods we used and the interpretations that were emerging. In the summer of 2016, excavations were led by Alexandra McCleary on three private sites just beyond the plaza, continuing the pattern of engaging community members on site during the regular course of their days and the continued employment of high school interns. These excavations were designed to produce data on the daily life of Abiquiúceños (McCleary 2020). A "field school forum" in the parish hall provided a venue for evaluation and debate of the methods not just of our excavations, but other field schools in the area. This was complimented by a Genízaro Conference in the parish hall organized by the library, putting the archaeological project in the context of interdisciplinary Genízaro studies throughout northern New Mexico.

Means to Engage Acequias as Politically Meaningful

My participation in the 2014 and 2016 field seasons as a crew chief, prompted my conversations with community partners about the status of water on the Pueblo and the continued use of acequias as an important Genízaro heritage practice. Water is always at the top of conversation in the high desert. There is never enough, unless there is too much, and traditional forms of water acquisition on the plaza from wells has made way for municipal water systems and septic tanks, though the acequias still run. Acequias are a site of political negotiation, continual maintenance, and are also part of the fabric of general conversation in Abiquiú. Each Spring, before the snowmelt and start of irrigation season, the acequia association for el Acequia del Pueblo de Abiquiu meets to re-elect the mayordomo, discuss debts and new members, negotiate labor for *limpia*, and other business.

When I began expressing interest in continuing the work of BACA for my dissertation, members of the Merced offered many possibilities as beneficial to the Pueblo and its heritage goals. Water became my main interest when I was awarded the opportunity to be a "water rights resident" at the Santa Fe Art Institute. In this way, the development of the project is the result of both an explicit community need/interest, and my own interests in the intersection of water rights, archaeological research, and art. I point this out in an effort to be transparent about my own personal benefit, as well as my earnest investment in developing a project that serves community interests.

At the same time, the Merced began adjudicating water rights for one acequia in the communal lands with the State Engineer's Office. The main goal of this adjudication was to establish a "priority date," or the institutionally approved date at which water was first being used for "beneficial use" from a particular source. This is contentious because New Mexico is a "first in time, first in line" state, which allocates water usage based on historical priority (as mentioned in the previous section). Abiquiú had been involved in this process before and the Acequia del Pueblo de Abiquiú was adjudicated in 2011 with a priority date of 1734 based presumably only on historical records (Newville 2011a; 2011b). The initiation of an adjudication process on the other acequias on the land grant made archaeological documentation of water use on the Pueblo a clearly beneficial endeavor.

Other local and state-based projects also made an archaeological investigation of acequias a meaningful and beneficial prospect to the Pueblo. As described in the previous chapter, the county engineer and the Rio Arriba Soil and Water Conservation District both have their own accounting of acequias in the region which they use to guide policy and programming. An archaeological survey by Forest Service contractors to move a pipe along Vallecitos Creek

overlapped with historic acequias that needed to be avoided in construction. Both these state-based evaluations of Abiquiú's acequia systems provided an opportunity for our research to offer an archive of water use that was created by and for the community.

As expanded above, acequias are also a site of cultural revitalization, environmental activism, and lobbying led by the New Mexico Acequia Association. Projects like Sembrenda Semilias, discussed in the previous chapter, engage youth and encourage multi-generational learning. The Northern Youth Project's approach to meld social issues with art paralleled approaches from the library. The library's orientation towards engaging youth through any means necessary, and focus on being a repository of local history and of contemporary engagement, encouraged me to develop an artistic component of the project.

These contexts and relationships established the questions we were interested in investigating through the process of collaborative documentation. First, "when were the acequias on the ejido used?" Obviously of importance to something like the establishment of priority dates, many Abiquiúceños know detailed biographies of various parts of the ejido ditches and, if not, are confident that the system is as old as the land grant. However, they were interested in archaeological methods for establishing this in a way that would be legible to the state. Second, "do these systems demonstrate a "Genízaro" way of acequia construction or management?" Understanding the biographies of the ditches materially could be an opportunity to fill out oral history narratives of acequias and investigate the possibility of a Genízaro acequia practice (following Sunseri's 2014 analysis of the system at Casitas). Finally, following the mandate for youth education and engagement by the Merced for the BACA Project, and in the interest of continuing the collaborative approach after five years of partnership, "how can acequia research be an opportunity for youth reinvestment in community history and traditional landscape?" I will return to these questions in the next chapter when we begin to create meaning through the interpretation of archaeological material and contemporary experience. These questions will not be completely answered, but they orient the methods we have used so far.

Sylvia Rodríquez points out, "The modern players in the ongoing drama of reparto, or el repartimiento de agua, understand their present condition as rooted in history, memory of which is passed on orally and through practice from one generation of irrigators to the next" (Rodríguez 2006, 31). In the case of our research in Abiquiu, we wondered if archaeological attention could expand this practice, allowing modern players to continue to learn directly from the memory of the past embedded in material culture? Or if it could expand the way modern practitioners are already learning from the material culture given that irrigating is already a materially entangled experiential process?

Means to Engage Acequias as Historical Practice, Archaeological Objects

These questions, which grow out of Abiquiúceño concerns with acequias as a politically and culturally meaningful object, initiated my investigations of them as historical and archaeological objects or features. Turning acequias into archaeological "features" requires thinking of them as part of a historical landscape. This landscape includes both the physical elements of the acequia (a ditch, a bank/berm, and a direction of flow or slope) and what it is in association with as part of a network/system (fields, homes, artifacts). In order to create data which let us analyze this landscape and evaluate temporal and spatial questions, we focused on mapping historic ditches and associated material. The methods I outline in this section were executed with an underlying acknowledgement that the historic acequias in question were active objects, despite not necessarily having water in them or irrigating crops.

Acequias in the Southwest have primarily been investigated as part of cultural resource management activities associated with development in Arizona, New Mexico, and Texas (Badner 2014; Cox 1995; Fox 1978; 1988; Fox and Cox 1990; Fruska 1981; G.W. Berger, Post, and Wenker 2009; Jeffery 2004; 2014; Lentz 2010; Masse 1987; Post 1999; Rinker 1999; Schuetz 1970; Valdez, Jr. and Eaton 1979; Zamora 2008). The circumstances of these investigations mean that most are in urban areas, and are aimed primarily at "rediscovering" the course of semi-known acequias and describing their condition. Some have been able to identify construction history and the few academic-based investigations use this to make some suggestions as to how these choices relate to environmental and historical events (Adler 2015; Rinker 1999; Sunseri 2014; 2009; 2018; Ulrich 2011). The main method used in these studies is trench excavation (largely with backhoes) to reveal full cross-sections of ditches, and the clearance excavation of stone-lined acequias. These trenches are usually sited based on historic maps, though some recent work has used pedestrian surveys to trace the course of visible acequias (Rinker 1999; Sunseri 2014). Stone lining, dams, and stairs have been identified, as well as fill from both the use and purposeful infilling of ditches. Wooden features to mitigate erosion and fence off the ditch have also been found in Texas (Cox 1995; Valdez, Jr. and Eaton 1979). Artifacts generally date to post-colonial eras when ditches were not consistently cleaned, and colonial era constructions tend to contain minimal artifacts (Fruska 1981; Schuetz 1970).

Dating has relied primarily on historical documents. The Texas Archeological Society field school at Mission Espíritu Santo de Zúñiga correlated the construction of two presas in the Guadalupe River with tree-ring data which demonstrated wet and dry years may have influenced construction location (Rinker 1999). Excavations in advance of the Santa Fe Railyard project were able to identify multiple acequia channels from morphology and historical documentation alone, and were augmented by the first successful use of single-grain Quartz OSL dating (see below) to confirm historically known ditches and suggest last-use dates for unknown ditches (G.W. Berger, Post, and Wenker 2009). Ground penetrating radar has recently been added to the remote-sensing methodology of tracing alignments from aerial photographs and historic maps (Jeffery 2014). Pollen samples have been analyzed with limited results, confirming acequias proximity to agricultural areas when providing any meaningful information (Adler 2015; Badner 2014; Jeffery 2014; Adler 2015).

Archaeological investigations of acequias in New Mexico follow these same patterns, with most work in urban settings and initiated by development projects, describing both stone-lined and unlined ditches (Badner 2014; G.W. Berger, Post, and Wenker 2009; Lentz 2004; 2010; Moore and Spivey 1998; Post 1999; Snow 1988). However, significant scholarly analysis has been done at the rural site of Casitas Viejas near El Rito in Rio Arriba county by Jun Sunseri. His approach combined field observation of acequia swales visible on the surface, with irrigation features from historic maps in a GIS model that included contemporary topographical data. From this database, he was able to analyze the hydrology of segments of an acequia and suggest its relationship to the nearby pre-colonial settlement of Sapawe (Sunseri 2009; 2014; 2018). These existing studies show how archaeological investigation can add knowledge of construction techniques and history to existing oral and archival records. The BACA water project expands on these methods to address questions posed by the Abiquiú community and to consider the acequias as part of a cultural and material landscape.

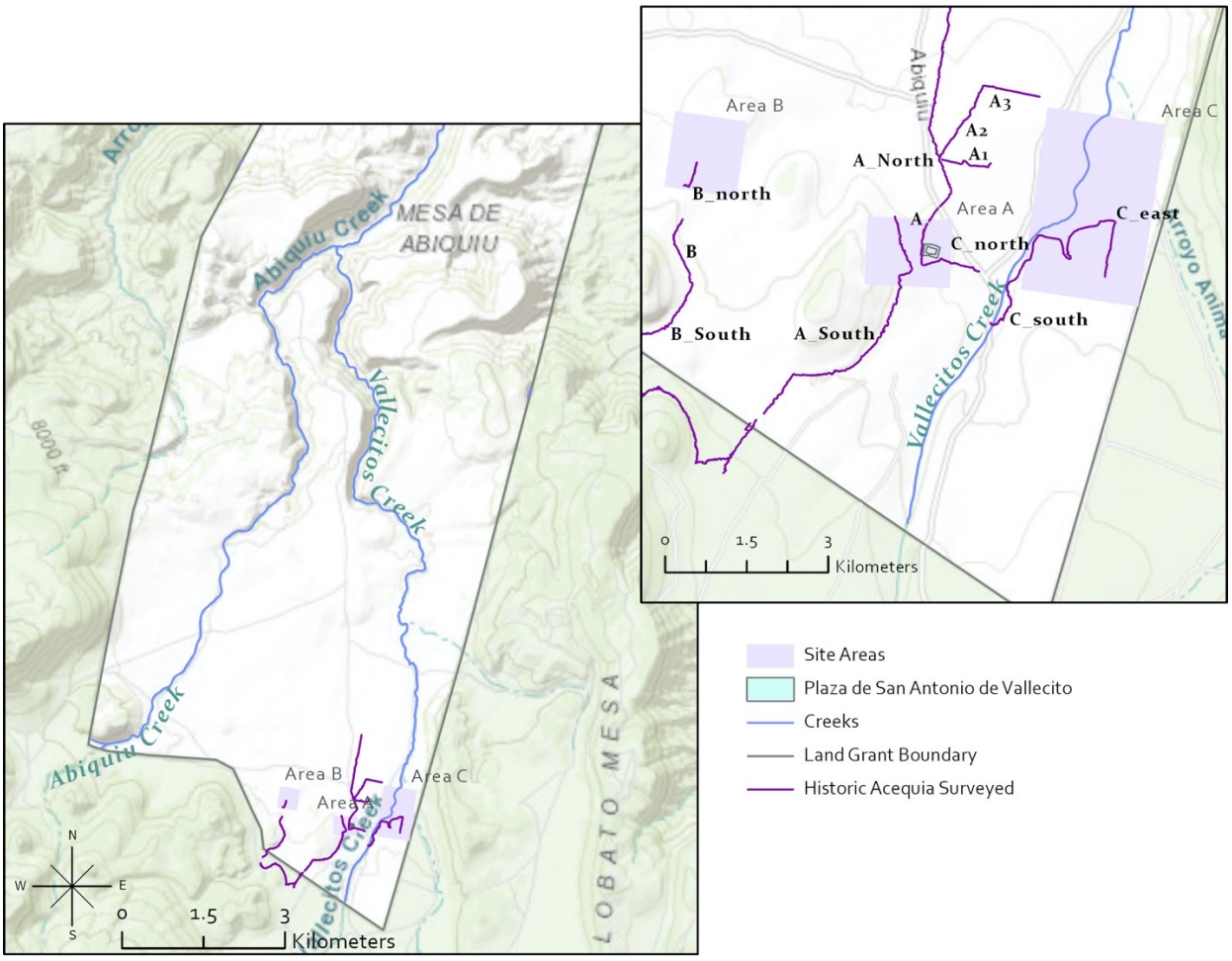


Figure 5.2 Overview of BACA 2017 Survey Areas

BACA's survey of historic acequias on the Pueblo's ejido took place over five weeks in July and August 2017. During this time, a team of subsidized UC Berkeley volunteers (undergraduate, recently graduated, and graduate students), nine paid high school interns from Abiquiú, and I surveyed the southern portion of the land grant. The ejido on the southern half of the land grant is above the plaza on a tall mesa. Driving there takes about thirty minutes on a mix of paved and dirt roads that switch-back up the mesa's northwest face. The land was included in the original grant as communal lands which could be farmed and lived on. Before the roads were paved and cars became common, a trip up to the ejido would take two days. Horses and carts would be loaded with gear and run up and down before people could hike up on their own. Abiquiú families lived full time on the mesa, coming down to the plaza for supplies and holidays. At the start of WWII, however, many of Abiquiú's men joined the armed forces and, while women stayed to tend the farms and homes on the mesa, eventually almost all of them stopped living their full time. Today, there are a few families who still own properties along the edges of the ejido (between the ejido and the Santa Fe National Forest), but to my knowledge none live there full time. Mostly, the ejido is used for cattle range land for regulated by the

Merced and recreation by Abiquiúceños. The two acequias that do run consistently, the Lopez acequia and Mora Community Ditch, serve a few fields of small agriculture and forage. Focusing on historic acequias identified by Bernie Archuleta and Virgil Trujillo that connect to Vallecitos Creek, the survey mapped over 2.5 miles (4 kilometers) of historic acequia, as well as three home sites along the ditches.

The majority of documentation was done through pedestrian survey that identified artifacts and built features visible on the ground. We focused on both acequia ditches themselves and a 5m buffer on either side of them, as well as any "domestic" sites that appeared within this buffer. We defined domestic sites as areas of dense artifact patterning, suggesting prolonged occupation (architecture, evidence of food preparation and consumption, etc.). We included a buffer zone along the ditch in recognition of its presence as part of a broader landscape practice. This included many activities alongside the flowing or absent water that extend beyond straightforward maintenance and use. As discussed above, acequias create right of ways, orient religious procession, and are places of rest and recreation, as well as providing water for both agricultural and domestic uses (see especially Rodríguez 2006; S. Crawford 1993). Information from the survey of both the right of way around the ditch, and the domestic sites associated with the ditch, contributes to the contextualization of the historic ditches in these broader daily practices, while providing potential temporal markers for different kinds of use.

For each ditch section, we walked its visible length to determine points to record in detail. These were generally 300 meters apart or where there was a significant change in the size, shape, or quality of the ditches. For each ditch, we took a photograph, measured and drew a sketch map, and filled out a digital form (see below).

For all seasons of the BACA Project to date (2014-2017), we have used an open-source digital field recording system called Open Data Kit (ODK). Our use of the system allowed a new form of local, intergenerational knowledge production between Abiquiú youth interns, their families, and myself (which I expand on more in the next chapter). In addition, it offered the time and flexibility to work with the interns to produce another kind of knowledge: a wholly analogue representation of their experiences doing fieldwork in the form of a "zine" (handmade magazine), as discussed below.

ODK is a "free and open-source software for collecting, managing, and using data in resource-constrained environments" (Open Data Kit 2018). In my work with the BACA Project, digital data creation is vital to create immediately accessible data and maintain transparency throughout all phases of the project. This is crucial to challenging historic power dynamics in which people in Abiquiú are seen as the subjects of research, rather than equal partners in its creation and use. Transparency is distinct from open-source in a context where years of extractive research, journalism, and tourism development have made people understandably wary of sharing uncritically. Our data collection methods are clearly articulated and accessible to the members of the Abiquiú community, rather than simply being available to anyone, anywhere. Using digital field recording allowed us to create a dataset over which the Abiqiúceños have ultimate control, one which is transparent and agreed on in advance. It's benefits—flexibility, affordability, spatiality, and accessibility—have important articulations with the goals and execution of engaged research.

After initial conversations with community partners, I built a digital form for the archaeological survey of historic acequia irrigation ditches using the ODK system. I used language we shared, both archaeological and Abiquiúceño, to describe features and sites, and

arranged fields based on what we collectively thought could be useful and interesting. The elements of this form were developed out of engagement with the archaeological reporting of acequias I reviewed. Fields that mimic the State Historic Preservation Office's acequia recording form were included alongside data points suggested by Bernie and Virgil. We could add or change fields as collaboration continued and learnt more from people who were intimately familiar with the landscape and its history and forms. Every member of the community who participated in the project could be included in the "data collector" field for each data point. This asserts the collaborative nature of the project in the data collection itself.

Because the whole system is open-source (that is, free) we could build this system, make it work, and put all the tools in the hands of the community with very minimal funding. Any person with an Android device can now download the app and, with the right permissions controlled by the Merced and community collaborators, download the forms, record data, and upload to the server. We used affordable, refurbished Samsung Galaxy Note tablets fitted with rugged, field-ready cases. This made the system self-sufficient, untethered from the resources of the university once it is operational.

Another benefit of the ODK system for survey was that each form is easily linked with GIS data. New features allowed us to collect GPS points, lines, and polygons using the internal or external GPS units with each form. We could export these records in Keyhole Markup Language (or .kml) the most universal geographic file type. This made it possible to export files, import them into Google Earth (also a free program), and show collaborators and community members exactly where we were working and what we were finding, all while still in the field. This became especially useful as the survey took us far away from the main plaza, thus making our work invisible to many (including one intern's grandmother, who claimed we must just be up in the mountains picnicking all day!).

ODK records could be uploaded to a server or exported and shared in common file formats (.csv, .kml, or .json) at the end of every work day. We worked primarily offline and took our tablets back to base, checked over all the forms, and uploaded them to a password protected server. This server is always accessible to Abiquiú community members via any internet connection and appears as an in-browser spreadsheet showing all the fields and their data by the version of the form it was recorded in. We then exported the days' files from the cloud as a Comma Separated Value file (.csv) and integrated the new data into a Google Sheet on our shared Google Drive, also accessible to Abiquiúceños on any browser. All of this highlights a real response to the issue of data transparency, accessibility, and control. Every single keystroke ends up in the control of the Abiquiú community to whom I, as an archaeologist, and the project as a community-based collaboration, are accountable.

If artifacts or "artifact scatters" (three or more artifacts) were present, these were also recorded in the form. Within the buffer zone, or in pre-identified areas with surface artifacts, we recorded diagnostic artifacts—those that tell us something about the time period of the site or activities that were happening there in detail. We photographed, sketched in detail for those artifacts deemed diagnostic, and recorded basic material qualities. After documentation, we left the artifacts where they were originally found. For all those artifacts which we documented in detail, we also recorded a GPS point with +/- 20cm accuracy using a Trimble GeoHx receiver and Tornado Antenna. The only instance in which we collected artifacts, as per the approved proposal, was when they were recovered in one of the three test trench excavations (see below). We collected nineteen small items for further investigation in the lab and ultimate curation by el Pueblo de Abiquiú.

These areas sometimes included "features," or a construction or assemblage indicative of human activity distinct from an artifact scatter. These we also recorded with photographs, sketch maps, and written descriptions in the ODK forms.

At three points near the domestic sites, the team dug three test trenches (2m by 90 cm) into the ditch, from which we collected the information described below. Three test trenches were selected in association with each of the three domestic sites on sections of ditch to represent three different levels of preservation. This selection strategy was used to get an overview of the possible time-frames of the ditches and serve as proof of concept for further sampling on ditches of varying condition. That said, the main purpose of the three test trenches in the historic acequias was to obtain soil samples for three different analyses: macromorophology, micromorphology and oscillating spectrum luminescence (OSL) dating.

Trenches were set perpendicular to surface visible ditches in the three segments of ditch associated with the three domestic sites. Excavation proceeded in 10cm arbitrary levels to reveal a cross-section of the ditch morphology. Soil description level by level supported the detailed profiling and photographing of these sections to document the macromorphology of each ditch segment. Because the most commonly collected information about acequias is the visible morphology in profile, this information allows comparison and analysis of preservation.

Micromorphology is the study of stratigraphy at a microscopic level. Microstratigraphy can illuminate information about materials, construction, and post-depositional effects (French 2003, 48; see also Rapp and Hill 1998). The purpose of samples collected for micromorphology in this study was for microscopic geology to be preserved *in situ* (in place) so that it could be analyzed for microscopic evidence of sedimentation, erosion, and other features related to the use and maintenance of the acequias.

The process of micromorphology involves cutting blocks of dirt out of the sidewalls of the trenches to turn into microscope slides. We collected a total of thirteen samples of this type. In general, we sampled at least three areas of the profile: first, in what we believe to be infill into the active acequia ditch; second, in what we believe to be the pre-acequia ground; and, finally, in another segment of ditch infill which appeared to be of a slightly different make-up, perhaps because it was closer to the sides of the ditch. If present, we sampled the berm where sediment from inside the ditch would have been deposited during cleaning. Given the community identified research goal of creating a timeline of the ditches from micromorphology analysis, as well as the budgeted funds from the UC Mexus Grant awarded for the project, six of the thirteen samples were selected to be sent to Spectrum Petrographics Lab in Vancouver, WA to be prepared as microscope slides. These samples were chosen in order to get the widest "vertical" section of the ditch. They were then analyzed in Lisa Mahar's geoarchaeology lab by Lisa Johnson and are interpreted in the next chapter.

The purpose of Optically Stimulated Luminescence (OSL) dating was to collect samples from different layers of soil (strata) and obtain calendar-year date ranges for when they were last exposed to sun. OSL is a dating technique that, "determines the last exposure to daylight of feldspar and/or quartz grains in unheated sediments" (G.W. Berger, Post, and Wenker 2009, 158; see also L.E. Purdue and Berger 2015b). OSL works because of the crystal lattice structure of quartz (and other minerals) which reacts to ionization from the sun in predictable ways. After a grain is buried, "low-level, ambient ionizing radiation" effects the crystal lattice structure in consistent and measurable ways, "dislodg[ing] electrons from lattice sites into lattice traps (either light-sensitive or not), some of which can be stable over more than a million years" (G.W.

Berger, Post, and Wenker 2009, 385). The OSL technique relies on a determination of the "dose rate" (D_R) of this ionization and the "dose equivalent" (D_E) measured when bombarding the crystal with particular wavelengths. Dose rate (D_R) can be thought of as the amount of energy stored in the crystal per year. Dose equivalent (D_E) can be thought of as the total amount of energy released during the test. The burial age (BA) or date at which the grain was buried can be calculated by dividing the D_E by the D_R (based on G.W. Berger, Post, and Wenker 2009, 385).

In the case of acequia ditches, this analysis can give us date ranges for possible use as new case studies. OSL has been successfully applied in a range of archaeological settings from Paleolithic to Historic in Europe, Africa, the Middle East, and North America testing pottery, architectural materials like mortar, and agricultural soils (Aitken 1998; al Khasawneh, Murray, and Khalil 2019; Williams et al. 2019; Davidovich et al. 2012; Feathers 2003; Kevin J. Vaughn et al. 2014; Kinnaird et al. 2017; Porat et al. 2018; Roberts et al. 2015; Sun et al. 2010; Urbanová et al. 2018). An analysis of samples from acequia canals in the Santa Fe Railyard District (2009) found that single-grain OSL was well-suited to the kind of quartz deposits found in northern New Mexico acequias, despite the uncertainty of when acequia sediments may have seen sunlight before burial (i.e. if they were deposited with water in larger quantities or at night time). Berger et al. (2009) determined that for irrigation ditch features single-grain blue and green OSL is the most appropriate method, as multi-grain analysis is not precise enough for features less than 500 years old. OSL has proven to be most effective for irrigation features because it does not have the inherent ambiguities that C14 dating has due to calibration curves. OSL produces calendar dates as the number of years before the date of analysis plus or minus an error range, which Berger (2009) found can be as little as eight years and as much as 150 years in single-grain analysis. This specifically makes it more suitable to dating acequias than archaeomagnetic dating which cannot handle such recent dates with any precision.

To obtain our samples, we pounded a piece of sharpened black plastic pipe into the sidewall of the unit and capped both ends to protect the sample from exposure to light once removed. After each sample was taken, three liters (or about half of a gallon ziploc) of dirt was removed from around the hole as a bulk sample. We collected eleven samples in total from the three test trenches, summarized in the table below and illustrated in the profile map on the preceding page. The OSL analysis must be done by an independent lab with photon detectors, making it very expensive. Two samples were chosen from then trench at San Antonio de Vallecitos (3AC EX) because the associated site is already well-documented (as discussed in the following chapter). The two samples would give us dates from the pre- and post-use phases of the acequia to produce a time frame of active use.

Means to Engage Acequias as a Cultural Practice

As part of this documentation of the landscape-based aspects of acequias in the ejido of Abiquiú, the project team also engaged with them as living cultural objects. Although the acequias we surveyed do not have formal governing bodies, I was invited to begin the project by observing an Acequia del Pueblo de Abiquiú association meeting and seeking guidance from its leadership. The meetings demonstrate the role of the acequia in daily life and the meaningful integration of traditions with contemporary needs for water. At the meeting in Spring 2017, Virgil Trujillo was voted in for another year of the duties of mayordomo, or "ditch boss." In his capacity, he advised the project on the major aspects of contemporary acequia practice, including inviting me to shadow his work with the Soil and Water Conservation team I described at the opening of this chapter.

Building an understanding of acequias as a cultural practice included assisting Virgil with the maintenance of one of the ditches whose arms we would later survey. Our field season opened with this exchange. UC Berkeley graduate and undergraduates joined Virgil in digging out part of the Lopez ditch as it ran to the east side of the land grant. The ditch flows from Vallecitos Creek through wooded hillsides out into open fields, and its morphology changes with the landscape. We removed silt and rocks from the bottom of the ditch, reinforced areas where the waters threatened to break through, and learned from Virgil many of the practical issues with constructing an acequia. This activity was not only a gesture of goodwill and fair trade, but also an important research element. Participant observation like this is a significant component of how we came to document and describe acequias.

Finally, as part of their guided undergraduate thesis research, Moira Peckham (2018) collaborated with interns to undertake oral history collection with their families and other BACA collaborators. These four interviews discussed the history and practice of acequia use and its meaning for the Abiquiú community, showcasing it and integrating material culture around the collective knowledge and personal memory of Abiquiúceños. They revealed the lived experience of these systems over time, including elders in the community who lived in the areas we surveyed and used the acequias we documented. Having local interns guide the interviews with their own families served to fulfill one of the mandates for the BACA Project, that is to reinvest youth into the community and encourage their ownership of this shared heritage. Peckham (2018) compared the language used by Abiquiúceños with those used in governmental documents regarding acequias and water management, and demonstrated a marked difference in the meanings of acequias. These methods allow the analysis that follows in Chapter 6 to engage acequias as cultural practice, inseparable from place and heritage, both in the past and present, not only as features or infrastructure.

Recognizing the aspect of *querencia* inherent in acequia landscapes, we used creative forms of documentation and expression to engage acequias as a present, ongoing, and future-facing activity. Throughout the survey, we recorded environmental photo, video, and sound to build effective documentation of the landscape on which we were working and the sensory experience of acequias past and present. This included POV video walking the length of the historic/inactive ditches, sound recordings of the different water present, and photographs of vista points along acequia route, flora, and material textures of ditches in various conditions of preservation. On the last day of survey, we hiked the extent of the segment of historic ditch from San Antonio de Vallecito up to its connection to the Mora Community Ditch, and ultimately to its presa along Vallecitos Creek. We used light sensitive paper and the water from the creek as it flowed into the ditch to create "cyanotypes" (a type of blue photogram), showing outlines of plants and other material that grows along both waterways' banks. The goal of this kind of recording was only partially one of archiving; it also produced a parallel process which attuned project participants' attention to the present day landscape and sense of place.

At the end of the field season, we organized the student interns and volunteers to do a community presentation. Students chose what aspects of their fieldwork they felt it was important to share and wrote short summaries to present to their families and community. They chose images to express these ideas and we collectively designed a t-shirt to represent the project. To be clear, I do not consider this auxiliary to the main activity of archaeological data collection and analysis. This event was key in putting into practice the goals of collaboration and producing a meaningful product. It also produced a context where community members commented and critiqued aspects of the project. I consider this an crucial aesthetic performance

of the ethos of the project, using the creative-process in narrative and imagery to spotlight the position of the archeological work within an active community, rather than isolated in an historic temporality.

Two months after fieldwork, I returned to the library and cultural center to continue this aspect of the project. I asked the assembled group of interns, "what do you remember about our fieldwork?" "Nothing," was one reply, quickly followed by, "the project ended, school started, and I did not have time to think about anything else." I was not shocked, though I suspected this was not entirely true. I knew their hard-drives could not have been wiped clean. So, as an exercise, we wrote a series of statements that started with the refrain, "I remember…" and went on to recall certain aspects of the project that indeed, were not nothing.

Alongside team member, painter, and BACA co-conspirator, Brea Weinreb, we used these reflections and images as the jumping off point for a collage project, discussed in greater detail in Chapter 6. Through this creative work, we reflected on our personal experiences, on how we build knowledge in a landscape, and represented these experiences from a different perspective than traditional archaeological representation. From the collages, we made a "zine," or hand-made magazine. Key to the feminist and punk inspirations of zine-making is a DIY, or do-it-yourself, approach to creation and a democratic production process (De Boer 2005; Zobl 2009). The students themselves designed the entire publication, from start to finish, including choosing who the main audience of the publication would be and how they would share it. After an initial brainstorming session, the interns agreed they wanted the zine to be for their peers—friends and other students their own age in the community. The analog form of the zine (literally cut and paste, then photocopy) allowed us to make it in only three meetings, with a limited budget and students with a range of skills and interests. We did not use photoshop, nor did we design it on the computer. We copied and pasted text and images by hand. This practice helped us, the archaeologist and the stakeholders of heritage work, reinscribe our embodied experience of fieldwork and history, and make these accessible to others.

The end result is a collective, visual document of the students' experience doing collaborative archaeological fieldwork on their Pueblo's communal land. The interns combined their own knowledge about their family histories and the high desert landscape with archaeological skills surveying el Pueblo de Abiquiú's historic acequia irrigation ditches. The zine illustrates this integration of knowledge through the collaged images, written reflections, and descriptions of archaeological keywords. By emphasizing images of their own bodies doing fieldwork, and by making the zine by hand, the publication is itself a trace of these students' engagement with landscape and history, joining the artefact database and GIS maps we produced as an important set of data for the project. The zine represents a significant part of archaeological research by framing the methods for data collection within the interns' personal experiences, and providing an opportunity for young Abiquiúceños to tell the story in their own words. Each student received their own copy and the rest were made available for sale at the Library del Pueblo de Abiquiú, as well as a few Bay Area bookstores, with all proceeds benefiting the library.

Collective Means: Acequias as site of collaboration

The BACA Project's water-oriented research that I lead integrated methods of investigation to access a range of scales of historic acequia practice. Landscape scale survey acknowledged acequias as part of a historic cultural landscape, and geo-located information put historic features

in context with one another. Digital field recording made information immediately available and controlled by the Abiquiú community. Site-scale documentation connected the acequia landscape to particular temporal sequences and specific histories, while test trenches and soil testing showcased micro-scale evidence of acequia practice. Coupled with creative and expressive practices, like environmental sound and video, cyanotypes, and a collaborative zine, these methods produced data that could be used to make meaningful connections between the history of acequia use in Abiquiú and the contemporary struggles of Genízaro people.

Acequias themselves are collaborations. Through acequia practice, personal needs and interests are negotiated and group resources distributed. Labor is collective and used to manage the overall health of the community and infrastructure. Acequias are both historical and contemporary objects. They hold multiple temporalities in their connections to practice considered "traditional" in Abiquiú, as well as the future of communal practice and land in the Land Grant. These multi-temporal, collaborative aspects of acequias as an object of research had direct effects on the means I pursued in researching them. The dual nature of acequias as a technology and a social institution, with historical ties to the development of Spanish Colonial Land Grants, makes any material study of them a necessarily dual endeavor. In this chapter, I have shown how the means of BACA Project research on acequias grew from this context to include survey, excavation, oral histories, community presentation, collage, and hand-made publication.

This chapter was, like a walk along the banks of Abiquiú's active acequias, a meandering discussion of histories, futures, and how we come to know them both in the present. I have described the social-material phenomenon of the *acequia* and how it has been used by Genízaro Abiquiúceños in the colonial period to negotiate land ownership, and in the present as a link to the past and hope for the future. I described the means by which archaeological attention was used to answer questions about water use in the Pueblo's communally held range land, and to create a program of engaged research focused on accountability, collaborative process, meaningful products, and reinvestment.

Chapter 6: Hydrosocial Congealments and other Meanings

On a cold spring morning, library director and BACA collaborator, Isabel Trujillo, called me to ask if I wanted a ride to the Society for Applied Anthropology Conference. I didn't want to go. It was freezing (snowing, in fact) and I was staying in a tiny adobe in Dixon forty miles away from Abiquiú, feeling unsure about how to carry on with my preliminary fieldwork. I was struggling with both chemical and situational anxiety. I would have preferred to stay in and write about all the things I didn't know, rather than face them in public, at a conference, in the fanciest hotel in Santa Fe. But Isabel called and soon I was in her car headed to Santa Fe within the hour. Isabel is a voracious learner, so she is often at the center of many programs in the Pueblo that engage history, heritage, and education. Her guidance on the project spans from hosting baby-showers and cherry-picking parties, to making sure the lights in the library stay on and touring grant-giving agencies in order to convince them to fund the dozens of ways the library serves her community. Her intellectual engagement with BACA has guided the project from day one. So it wasn't surprising that her drive (literally and figuratively) was what got me to Santa Fe that day.

It was at the meetings that Isabel drove me to that I learned about the idea of "hydrosociality." During a session on water, Sylvia Rodríguez spoke about research with her own acequia community in Taos. Her ethnography was already a touchstone for my growing understanding of acequias as both social institutions and water infrastructure (see previous chapter). Afterwards, as we walked away from the session, she mentioned that geographers were talking about this thing called, "the hydrosocial." Hydrosociality made sense immediately. Without even a formal definition, I understood that the compound of hydro (water) and social (people) fit my understanding of collaborative archaeology about acequias as an congealment of

people,
resources,
elements,
practices,
politics,
religion,
trees,
tradition,
rocks,
and technological innovation.

The material dimensions of acequias—bounded by physics, chemistry, and agricultural practice (hydro)—and the social dimensions—bounded by historical circumstances, cultural practices, and tradition and heritage (sociality)—blend together in this field of study. Water is life, and acequias are places of human interaction as much as they are trenches in the ground through which water flows.

I didn't learn this from hydrosocial studies, however. I learned this from Virgil walking me around Abiquiú's ditches, and from the way water flows through a dry acequia for the first time with dogs chasing it, and the way people perk up when you say you're interested in water rights, and the feeling of being ankle deep in a flooded acequia during a summer storm. Nevertheless, the concept of hydrosociality is a helpful analog for the Abiquiúceño way of knowing acequias. Indeed, the academic and applied research using the term has helped me

begin to interpret the hydrosocial congealments known as acequias alongside the people of Abiquiú themselves, and these acequias of Abiquiú, in turn, have prompted me to reframe what hydrosociality is. In this chapter, I take what I know about

acequia culture,
the material histories of acequia practice,
Abiquiú,
Genízaro heritage,
physics,
hydrology,
geographic information systems,
youth reinvestment,
collaboration,
and riding in the back of Bernie's truck holding a dead rattlesnake

and suggest some of the many meanings that emerge.
The core of this chapter is the material interpretation that archaeology is so good at—that is, the expansion of traces into a meaningful narrative about the past. However, I also let those meanings leak out and puddle elsewhere—in the meanings created through and by collaboration and creative practice—a flow of its own that is beholden to a similar gravitational force as the acequia, here stopping at a presa, here allowed to flow freely back to its source.

These meanings arrive through a series of representations that I expand below in maps, collages, archaeological narratives, and zines. Each has a particular standpoint and open avenues to understanding unique facets of acequias and engaged research. These meanings are inspired by the concept of hydrosociality which I unpack in the first section. I make the argument in this chapter that thinking about the material-historical hydrosociality of acequia practice in Abiquiú requires that I develop the concept further, using ideas drawn from New Materialism and Queer theory like congealment and intra-action. This chapter advances the concept of hydrosocial *congealments* to investigate the multivalent relations (material, social, cultural, political, etc.) through which material (humans, technologies, things, etc.) intra-act on political, economic, cultural and ecological scales (Barad 2006; Bennett 2010; DeLanda 1997).

Hydrosociality is a way of thinking through/with the relationship between people and water. An expansion of the hydrosocial, through archaeological attention and engaged fieldwork, has challenged some of the boundaries still placed on humans and nonhumans by existing discussions of hydrosociality. This is relevant to the Abiquiú community, as it actively participates in practices of water management, cultural identification, and legal rights through the institution of the acequia, as well as to the anthropological study of hydrosocial systems. For the latter, it offers a New Materialist perspective, through the archaeological attention to the acequia as an infrastructure, a practice, a trace, and a congealment of materials that has social value, political meaning, and ecological impacts. Drawing on the historical time scale made available by techniques such as micromorphology, oscillating spectrum luminescence (OSL) dating, GIS, and oral histories, I propose a significant recasting of hydrosociality understood through the representations explored in the second section.

Hydrosocial Congealments

Hydrosociality is a way of framing water resources and infrastructure as active participants in social maneuverings. It is a way of thinking through the connections of water to people and people to water. Rather than isolating water as part of "the natural," or economic, or physical, hydrosociality acknowledges the co-constructed nature of water and us—the people who have practices, traditions, and institutions to manage, control, and use it.

Central to this idea is the theory of how things and people join. Without a rigorous attention to this part of hydrosociality, we risk thinking of things as merely extensions of peoples' bodies and agency. I want to avoid thinking of water as a prosthetic for people's' social practices. Hydrosociality has emerged explicitly to combat this hierarchy, foregrounding the internal relationship between water-y things and people-y things, while arguing that they co-constitute each other and are both active in that process (if not necessarily equal, or equal in the same way) (Linton and Budds 2014). The thinking around hydrosociality grows primarily out of an engagement with theories of object-oriented ontology (Harman 2018) and actor-network theory (Latour 2005). Here, water and people are active but separate. As the following discussion demonstrates, an archaeological hydrosociality needs a rigorous sense of the intra-constitution of matter, rather than the agency of objects.

I draw on New Materialist philosophers to expand an understanding of assemblages into those of congealments, rather than thinking of acequias as constituted by a number of different parts, all of which effect each other but remain separate. I consider how congealments are intensities of a particular kind, not collections of essentially discrete elements. Thinking of hydrosocial assemblages as congealments helps me think about acequias material and social dimensions as intra-active in a way that *is* hydrosocial. That is, it is always already part of the same "vibrant mattering" that we encounter variably as flows of water or negotiations during acequia association meetings (Bennett 2010).

This is a move away from the original conception of hydrosociality as a Marxist dialectic, and a move towards a non-dualistic materialist mode. The dialectic is not the only model for articulation between water and social power. Thinking with intra-action and congealment lets me do more with a multiplicity of qualities, material, social, imaginative, and otherwise. The list, rather than the slash or dash, is the grammatical index of such a theory. And so, rather than forming an understanding of acequia as institution/infrastructure or socio-natural object, I orient around the ever-changing series of lists that emerge as I write. The list denies even a glimmer of difference, lumping aspects together with commas in variable order: "And this, and this, and this, and this." Hydrosociality is not an either/or situation, but rather the recognition of a togetherness.

What does this mean practically? It's not just new language used to describe the same old thing. Thinking with congealment and intra-action make meanings where these connections might easily be overlooked. Working with hydrosocial acequia practices (recall Chapter 5 for the different elements of this in relation to archaeology) requires that I think of the "historic cultural watershed," a landscape that includes cultural practice over time ("historic") and a physical landscape of enmeshed ecological practices ("watershed"). This is exactly the kind of object that hydrosocial studies helps analyze.

What Hydrosocial Means

The term "hydrosocial" identifies the dialectical relationship of water resources and infrastructure with social and cultural practices. The idea was developed in critical geography

(Bakker 2002; Linton 2010; 2014) and intersects with anthropology, STS, and political ecology approaches to analyzing water in its many forms (Boelens et al. 2016; Perramond 2016). In research and management contexts in the US, water as a resource has been separated from the social institutions that govern it and the cultural practices that maintain it. Hydrosocial studies re-knit water and its users, "a shift from regarding water as the object of social processes, to a nature that is both shaped by, and shapes, social relations, structures and subjectivities" (Linton and Budds 2014, 170).

Linton and Budds (2014; see also Linton 2014) advance the idea of the "hydrosocial cycle" as opposed to the "hydrologic cycle." The hydro*logic* cycle is the water cycle as many have learned in grade-school classrooms since the 1930s, the main conceptual tool for thinking about water control through policy and governmental management (see discussion of Horton 1931 in Linton and Budds 2014). This way of thinking about how water works, as the term suggests, uses a simplifying logic that divides "natural" processes like evaporation, condensation, and percolation, from "cultural" practices like drinking, contaminating, and storing. Most importantly, it erases those cultural practices from the model of how water works and what it is.

The insight hydro*social* studies brings to this way of thinking draws on forms of critique from science and technology studies, asserting the social construction of the separation of water and people through claims to objective science that is anything but objective. This critique illuminates how the hydrologic cycle is a framework of meaning which grows, not from a position of pure objective observation, but from a subjective historical reality. It does not grow from how water *is* (in its essence), but rather determines how we think it is. Thinking hydrosocially, on the other hand, forces a recognition of the variable constitution of water across time and space. The separation of water from people appears at a particular time in history, created by particular people, and supports certain kinds of modern state management and strategies of power. Early examples of hydrosocial research explore the interconnectedness of water and social power, demonstrating the historical interconnectivity between control of water and consolidation of cultural power (Banister 2014; Swyngedouw 1999; 2009).

The hydrosocial cycle, by contrast, recognizes this relational/dialectical aspect of water and social practice. It allows us to examine how water systems are co-constituted by ideas of nature/culture and science/politics. A major element of thinking this way is recognizing the agency of water as part of hydrosocial assemblages. Rather than the essential quality of water determining particular social reactions, water changes and is changed by the social, meaning "different kinds of water are realized in different hydrosocial assemblages" (Linton and Budds 2014, 176). The hydrosocial cycle turns water into a means by which we can investigate social relations and trace how power is infused in these relations, and then can be acted upon. Linton and Budds (2014) suggest that this forms a structure for producing more complex understandings of water through three major insights into how to proceed with research: first, we must, "ask what water is"; then, "how water is made known"; and, finally, "how water internalizes social relations…power, and technology." The question, "what is water?" is an ontological one; the question, "how is water known?" is an epistemological one; and the question, "how does water internalize social relations" is, I argue, an anthropological one (Linton and Budds 2014, 179).

This conceptual move is ultimately political, and the "hydrosocial cycle makes it impossible to imagine water issues as simply water issues" (Linton and Budds 2014, 178). A hydrosocial analysis yields understanding that can inform action to produce more "equitable hydrosocial relations," by moving away from "a model of physical circulation to a historical and relational-

dialectical process through which water and society constantly make and remake each other" (Linton and Budds 2014, 179).

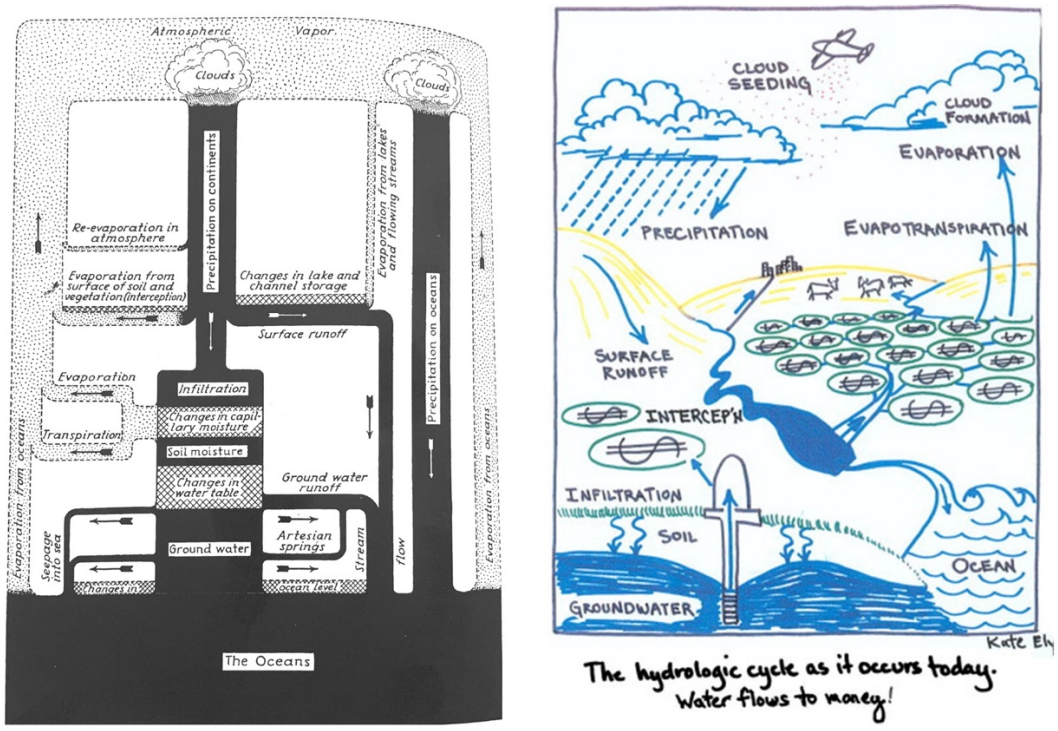


Figure 6.1 Two diagrams from the What is Water? illustrate the hydrosocial cycle and the social relations of the water resource management cycle (Image credits: Meinzer 1942 from Linton 2010 (left) and Ely in Linton and Budds 2014 (right))

Hydrosocial Abiquiú

This is an ideal location for collaborative, anthropological archaeological intervention. Collaborative archaeology allows me to talk about both the physical circulation of water through infrastructure and the process of maintaining, changing, or abandoning practices that control and distribute it *at the same time*. In order to interpret Abiquiú's acequias through the lens of hydrosociality (a concept developed outside the Genízaro Land Grant context by a white scholar with no immediate relation to Abiquiú's acequia culture), I will unpack how I've come to see it as an appropriate theory, albeit one which changes through thinking with Abiquiúceños about acequias past, present, and future.

A hydrosocial approach shares similarities with that of the Abiquiú community as manifest in the BACA Project. For collaborators, initial interest in studying acequias archaeologically has a variety of manifestations, but a shared contemporary urgency: the adjudication of water rights by the state of New Mexico. The process of adjudication under the New Mexico Office of the State Engineer originates in a text-book understanding of "modern water," isolated from both social practices and even physical geography (Perramond 2016; 2018). The 1907 New Mexico State Water Code initiated the current system in which the State Engineer is directed to adjudicate all water rights in order to simplify government oversight and management of publicly held waters, from which all private waters ultimately originate (New Mexico 2016; Hall 2008). This attempt at total state documentation and control through adjudication of water rights, "imposes a completely new, often alien, form of hydrosocial relationship as the state inserts itself as the

authoritative body for water management" (Perramond 2016, 176). For Abiquiúceños, adjudication is an ongoing process, both on and off the Land Grant. People in Abiquiú irrigate using the Acequia del Pueblo de Abiquiú, which draws from Abiquiú Creek, and from the two acequias in the ejido that draw from Vallecitos Creek. They also have social, familial, and cultural connections to acequias in the area that draw from the Chama River and other creeks to the east and west.

The process of adjudication is rarely uncontested. Peoples' feelings about its fairness and effectiveness range from tolerant to derisive. As one Abiquiú irrigator commented:

> It kind of seems through adjudication, you seem to lose control of the waters that you've had control of your whole life, of all the generations in the family. All of a sudden, the state says, "No, the water is mine, we're just letting you use the amount—"…They say what you need. They go to your ranch and say, "Well, this much of your land shows that it is irrigable so this…this is what the calculation amounts to on how many acre feet you get" (Interview 1, Peckham 2018).

Water that has been held communally, distributed among interconnected families and known peresons, abruptly becomes the property of the state through the adjudication process. The process begins by mapping claims, creating an authoritative document in the visual and textual language of state bureaucracy. Then, "offers of judgement" are sent to "documented legal rights holders" with the assertion of the State Engineer as to the location, priority date, and amount of water. These offers are either accepted or rejected by owners, and made public so that anyone can contest (Perramond 2013). It is this process that sets the condition for understanding what water is and how it is part of contemporary and historical power dynamics.

Adjudication is framed by Abiquiúceños as a threat to both access to the precious desert resource for ranching and farming, and as a challenge for the continuation of shared traditions those practices represent—that is, "acequia culture" as described in Chapter 5. However, state adjudication of water rights also constitutes the legal conditions for the protected use and ownership of water (and land), and is considered necessary and positive if manipulated in favor of the "true" conditions of water rights on the Pueblo. That is, if the state accepts evidence for the use of water that dates back to the origin of the Pueblo, and accepts domestic and agricultural use regardless of continuity into the present, the process can be beneficial.

What is water in Abiquiú? According to historian, educator, and self-appointed "governor of Abiquiú," David Lopez, "Water, runs downhill [in general] but uphill to money." (A popular saying in Southwestern water battles, Mr. Lopez credits this saying to the New Mexico State Engineer from thirty years ago. Swyndgedouw (2009) credits Robert F. Kennedy Jr. with using the phrase in a public speech, "We are witnessing something unprecedented: water no longer flows downhill. It flows towards money." Kat Ely who works with the Confederated Tribes of the Umatilla Indian Reservation, created a diagram to that effect, see Figure 6.1) In the contemporary context of mixed *Indio*, *Hispano*, and *Anglo* hydrosocial systems, the economics of contemporary water politics change the physics of water. This saying encapsulates one instantiation of water in Abiquiú today: a precious commodity that follows the rules of capitalism over physics.

Mr. Lopez also shared that during Spanish Colonial occupation water that flowed from the ground could be owned and partitioned, but water that fell from the sky belonged to everyone (described in Chapter 5). Water rights and land rights are one in Spanish Colonial law and

practice, and the concept of the *ejido* foregrounds communal rights to resources over individual rights (Arellano 2014, 86). Water takes on different traits from a contemporary Abiquiúceño Genízaro perspective than a historically Anglo one. Water is "movable property" in an Anglo-American understanding, and "part of the commons" in a Genízaro/Hispano one (Perramond 2018). The Anglo separation of water from land, and division of a conceptually infinite resource, is at odds with an understanding of Hispano communality.

Perramond (2018) argues that these differences are produced, in part, by the state adjudication process, which attempts to create a hierarchical (or vertical) relationship of water management in the context of communal (or horizontal) water management practices. This process exemplifies the tensions between pre-US ways of thinking about water sharing and use, and the desire of state bureaucracy to control, document, and operationalize hydrosocial relationships.

These tensions are not just physically manifested in the practices of water management, use, and infrastructure. The two co-construct each other. The beliefs around the "right way" to irrigate using the acequia system at various points in time lead to physical and social landscapes of mutual assistance, collective bargaining, and disputes that are both personal and political. This dialogue between landscapes, infrastructures, and beliefs includes

ditches,
berms,
flows of silt and water,
processions and limpias,
check-dams (presas),
streams,
snow melts,
floods,
acequia councils,
mayordomos,
pacientes,
boulders,
trees,
slopes,
fields,
gophers,
cows,
rumors,
and *La Llorona* who lures children to drown in the acequia to replace her own murdered progeny.

Water *is* all those things, not just comprised of them. It produces and reproduces the material congealment of relations between them. Water *is* the unique arrangement of hydrogen and oxygen, an essential human resource, an element of ecological systems, and a substance of history, heritage, and tradition. This understanding of water echoes Manuel DeLanda's (1997) claim that concrete forms in history derive from internal morphogenetic capabilities that lie within the flow of matter-energy itself.

In Abiquiú, water is at odds with the kind of "modern water" that Linton identifies in his history of the de-socializing of the water cycle. This is the water taught in schools, the water that runs from the tap, the water that is not really there. This is at odds with the water that is known

through history,
through the dried up *noria* (well),
through stories and traditions of acequia maintenance,
through being on the land and irrigating fields,
through watching the seasons turn and experiencing the rain and snow on the mountains turn into water in the creeks, ditches and rivers.

One way of knowing water comes from initiation into the institution of the acequia, which is inherently spatialized. In this way, water is known in Abiquiú as part of a hydrosocial territory. Boelens et al. define hydrosocial territories as, "spatial configurations of people, institutions, water flows, hydraulic technology, and the biophysical environment that revolve around the control of water" (Boelens et al. 2016). Territories are actively constructed, historically produced interactions between society, technology, and nature. This claim builds from Linton and Budd's (2014) definition of the modern Western conception of water as a natural resource, which strategically de-politicizes water's territories to make them seem neutral and managerial. However, "territorial struggles go beyond battles over natural resources as they involve struggles over meanings, norms, knowledge, identity, authority and discourses" (Boelens et al. 2016). Considering the context of water via hydrosocial territories foregrounds the "recognition of the political nature of hydrosocial territories through the study of everyday water use as praxis" (Boelens et al. 2016).

The state territorialization of water revolves around the map. However, the water represented by the Abiquiúceños ways of knowing has different boundaries than those on the USGS and State Engineer maps, which names some acequias as "ditches," some as creeks, and some not at all. It does not respect the boundaries of the Land Grant, despite the fact that those boundaries are said to have been moved by American surveyors in favor of US "public lands." It connects water on the plaza to the creeks that run up into the mountains, connects streams and springs from the Santa Fe National Forest, traditional lands of the Pueblo in practice, if not in legal deed. It connects the water that falls from the sky to the water that percolates into the earth and is held by the aquifers below, that draws silt from the burn scars of forest fires into the ditches and makes for a muddy, ash-filled *limpia*. The traces of the acequias themselves, moving and shifting through every season, every flood, every generation of upkeep or of disrepair, hold the sociality of water and make it known through time.

The control of water in Abiquiú is tenuous. The traditions of acequia maintenance and management are literally carved into the landscape, but the social institutions that maintain them ebb and flow. Older *parcientes* sometimes hire day laborers rather than young family members to maintain their *taras.* Meanwhile, the young people that are invested may not stay and irrigate the land as their parents or grandparents did because of limited economic opportunities.

The "what" of water changes as it is known, first as a Genízaro-Hispano tradition, then as a site of legal rights and concepts of ownership. It is in this crack that the BACA water project was initiated to suture the "what" as a natural resource divided by cultural needs with the practice of archaeological attention in the service of many other acequia/heritage education projects already underway on the Pueblo and in northern New Mexico. In particular, archaeological attention puts water back where it is not present today—or is present in a different

form—and disturbs, in this case in a positive way, the legal/material understanding of water as a fixed resource to be divvied up. This grows from a historical understanding of water by the community members of the Pueblo themselves, so the archaeological research has grown from this context of collaborators bringing new knowledge of archaeological methods together with their own desires for representation of water systems and histories.

Acequias that mean things

In Chapters 4 and 5, I established the modes and means of my involvement in the BACA Project and how the key concepts of Genízaro and acequias are at play in this work. I have just described *hydrosociality* as a way to combine the many valences and temporalities of these ideas and archaeological practice. Now I want to turn to how I make meaning out of all of it. The meanings that follow have emerged through and because of collaboration. An essential part of my collaboration with people in Abiquiú has been sharing how archaeology produces knowledge, and learning what parts of that are meaningful in the context of Abqiuiú. A major focus of this project has been thinking through the important ways archaeological narratives are formed through media and representation, and then mobilized following the goals of the Abiquiú community. This touches both on the goal of collaborative work producing a meaningful product, as well as the idea of reinvestment in the community.

In what follows, I describe the concepts of *representationalism* and *representation* as related, but critically separate concepts that help me reflect on knowledge production. I focus on one element of archaeological recording that has been an important aspect of BACA—the map—to discuss these contrasting phenomena and the traditional archaeological interpretation which has emerged from the BACA fieldwork. Ultimately, however, these interpretations are part of a larger experience of the meaning-making that includes the dynamics of collaboration and creative projects with teen interns.

Archaeology both addresses existing congealments and produces them, telling stories about time. Time that adheres in landscape, flows in memory, and in this case fuels the hydrosocial intra-action of acequia practice. In this section, I attempt to tell some of these stories without erasing the fact that they are all part of one story, embedded in place and senses of history and belonging. The meanings I have made with the people of Abiquiú rely as much on analyzing archaeological data as they do the process of making a reflective, visual object in the form of a *zine* (a handmade or "DIY" magazine) with the project interns. Here, I describe both as data that comes to create a meaningful narrative of collaborative archaeological practice. The archaeological data tells hydrosocial stories that reach from the microscopic to the landscape scale. The creative publication locates the production of these stories in contemporary, lived experience. The two belong together as part of the holistic production of meaning in a socially active praxis of engaged research, and the two genres of interpretation and representation are more than the sum of their parts. These, and all the representations produced by the project, circulate and expand in their own ways. Indeed, this document and other meta-texts I continue to produce are part of the ongoing process. They contain many representations of time, place, and being.

I should say, however, that this does not mean I don't stand by the interpretations produced by the hypothetico-deductive process of archaeological analysis. These interpretations, making claims that use quantities like dates and locations on a Cartesian world grid, are perhaps some of the most immediately useful objects for Abiquiúceños interested in protecting their

rights to land, water, and history. They matter, in both senses. They have meaning and they are part of the vibrant congealment that is this meaning. It means something to reproduce historical narratives in the genre of archaeological representation (as I discussed also in Chapter 2). It helps order material from the congealment that produces the possibility for other means and other futures.

The interpretations of archaeological data that I produce below are important facts in the sense that material assemblages inhabit patterns' indexical knowledge. They mean something in the real world. The correlation of the clay-coating of basalt in the microstratigraphy of an acequia to the sluggish flow of water in the past, or the snaking of acequias through the landscape to particular historical time periods, is not the knowledge of acequia practice itself—but rather points to the shared knowledge and experience of the past. Thinking this way frees my archaeological interpretation from the positivist double-bind, that what I write must be the only truth in order to function meaningfully. Instead, traditional archaeological interpretation is one of many indexes that point to the past included as part of these congealments. Similarly, the zine we produced with project interns indexes a view of their position within this production of meaning in an open and re-interpretable way. Both become open representations that rely on, rather than erase, the positionality of each activity of knowledge production. What I claim in this section is that this openness and re-interpretability is a crucial function of engaged research.

Representation and Representationalism

Cultural critic Raymond Williams writes that the term "representation" encompasses, "a range of senses of making present: in the physical sense of presenting oneself to another, often some person of authority but also in the sense of making present in the mind…and of making present in the eye," as well as symbolizing or "standing for" (Williams 1985, 266-67). Literary historian, Christopher Prendergast (2000), claims that there has been a historical intellectual shift from thinking of representation as posing philosophical problems about things/content to problems about process/practice, which has had significant impact on the theorizing of everything from literature and painting to language and culture. The concept of representation is also enmeshed with its near neighbors of interpretation and presentation. Interpretation, presentation, and representation are simultaneously nouns *and* verbs—they can be both a thing and a process.

An interpretation is a thing which interprets.An interpretation holds a transparent relationship to the process which creates it. Interpretation implies a perspective, a filter, a lens. An interpretation does not foreclose on other interpretations (though authoritative interpretations can drown out others). It does not naturalize itself immediately. As an object, "an interpretation" has posed a different problem, and has been taken up differently than "a representation." As a process interpretation is key in scientific discourse and epistemological debates (Prendergast 2000). For Bourdieu, the dilemma of interpretation "is concerned with providing coherence to a mass of primary experience. It is a grouping of material that is ordered to give a coherent account of those experiences and facts. It is a construction…[and] tends to operate according to representational logic, not the logic of practice" (Bourdieu 1990 in Prendergast 2000, 47).

*A presentation is a thing which presents.*A presentation is an offering. It is performative in nature, fleeting and durational. A presentation ends. Presentation (noun) cannot be separated from presentation (verb): they are simultaneous. Artists working with New Materialist concepts

have offered presentation as an alternative to representation, a practice that avoids the naturalizing effects of the hubristic practice of direct representation (Barrett and Bolt 2013; Bolt 2004).

A representation is a thing which represents. A representation is made through a process that attempts to erase all evidence of itself. That is, a successful representation moves you directly away from itself to the thing to which it points, its referent. The irony of representation is that in simply talking about representation, you represent it (Bolt 2004; Prendergast 2000, 3). As a process, it is slippery. As an object, it is either dangerous and powerful, or false and faulty. Representation becomes an explanation for itself: meaning relies on representation, representation relies on meaning.

Attaching *-ism* to representation creates the phenomenon that I am concerned with here. The most basic version of representation*alism* in modern Western philosophy states, "Our immediately experienced sense-data, together with the further beliefs that we arrive at on the basis of them, constitute a *representation* or depiction of an independent realm of material objects—one that we are, according to the representationalist, justified in believing to be true" (BonJour 2013). According to feminist philosopher of science, Karen Barad, "Representationalism is the belief in the ontological distinction between representations and that which they purport to represent; in particular, that which is represented is held to be independent of all practices of representing" (Barad 2003, 804). In other words, representationalism is a belief that representations do not affect their object and vice versa. It is this foundational belief which has underpinned all classical, modern, and, even in her argument, *post*modern thinking. Following other feminist scholars of science, she proposes that representationalism is atomistic, while this atomism limits understanding of the world to one of words and things, subjects and objects. The relationship between the two is constantly in question and is one of correspondences. This ultimately positions materiality as either a given or a mere effect of human agency (Barad 2003, 827).

Barad proposes a rereading of performativity, which she calls agential realism, to replace representationalism. This monist theory of materialism aims to, among other goals, absorb and deactivate representationalism's foundational separation of subject and object by thinking instead of intra-action and phenomena. In doing so, "discursive practices are not human-based activities but rather specific material (re)configurations of the world through which local determinations of boundaries, properties, and meanings are differentially enacted. And matter is not a fixed essence; rather, matter is substance in its intra-active becoming—not a thing but a doing, a congealing of agency. And performativity is not understood as iterative citationality (Butler) but rather iterative intra-activity" (Barad 2003, 828). Agential realism, as a theory of materiality, becomes about relations rather than things. Causality is not the inevitable result of the inherent properties of two (or more) objects coming together, but the emergent result of phenomena's contingent relation. This orients materiality to the temporal, rather than primarily the physical, underscoring the progressive rather than static aspect of the congealments we know as landscapes, events, objects, and people. As Barad writes, "Matter is always already an ongoing historicity" (Barad 2003, 821). Critical to this discussion of representation, this also means that "matter and meaning are mutually articulated" (Barad 2003, 822).

It is my aim to take as a starting point Barad's critique of representationalism in order to understand the ways archaeologists come to terms with the process, products, and results of

something called "representation," and to analyze the representations produced by my work with the BACA Project. The way I conceive of these representations foregrounds their mutual existence, and intra-action, with their objects. Combining this with hydrosociality, we see how acequias and micromorphology, and collage and water law, are all in intra-action through that phenomena that is acequia research in Abiquiú.

Archaeological Representation and Artistic Archaeologies

Writing about visual representation by archaeologists is split between examinations of content (archaeological practice, materials, or narratives) and examinations of form (archaeological films, books, or images). This writing creates a separation between *how* archaeology represents and *what* it represents (and is, notably, not yet a conversation about representational*ism)*.

Stephanie Moser defines archaeological representation as the "ways in which knowledge about the past is constructed through the different modes of presenting our disciplinary findings" (Moser 2001 in Moser 2014). This "how" definition fixes the appropriate content of archaeological representation (i.e. "our findings") and leaves open the forms through which they can be represented. The emphasis on knowledge construction in this definition belies an emphasis on communication between distinct spheres of knowing: that of the expert archaeologist and that of the receptive public.

In the *Oxford Handbook of Archaeology,* Moser further defines archaeological representation:

> [Representation is] a recently established research *specialism* within archaeology that centres on examining how *non-academic* representations of the past have contributed to the construction of knowledge about ancient societies and culture. Such representations exist in the form of illustrations, museum displays, media reports, artworks (including the decorative arts), literature, film, staged reenactments, advertising and computer games. Archaeological representations can be two- or three-dimensional, visual or textual, static or performative. Furthermore they can either depict past cultures, archaeological sites, or the material remains of ancient societies (emphasis mine, Moser 2008, 1048).

This definition creates a disciplinary interest, built on a narrowly defined vision of representation, that focuses on the impact of representations produced outside of academic narratives, on academic narratives, a welcome reversal of the expert to public directionality of archaeological representation.

Rather than a unidirectional process, in which archaeologists use different forms to presenting "findings," I consider archaeological representation as encompassing all the practices of the co-construction of knowledge surrounding the research process, including the communication of findings, but also the processes of sharing archaeological methods, traditional and local knowledge, and desires and goals. I emphasize the centrality of non-academic representations of the past to differentiate Moser's approach to archaeological representation from those who see archaeological representation as part of the disciplinary practice of archaeology itself like Joyce (2002) outlined above, or Shanks et al. outlined below. Moser certainly acknowledges the impact of archaeologically-born representations and the real impact any form of representing the past has on archaeological thinking both within and outside the

academy, but is more interested in what becomes of archaeological information once it is let loose in the world of other representers, like advertising, cinema, and the decorative arts.

While Moser's version of archaeological representations take a critical historical view of the standard mediums of archaeological work (writing, illustrations, maps, photographs, and the like), another point of view approaches the idea of the "creative arts" as a method for expanding the modes of representation available to archaeologists, and consequently the modes of thinking incorporated into traditional research practice. European and British archaeologists, following Sir Colin Renfrew, laud collaboration with and inspiration of contemporary visual artists, while Tim Ingold encourages incorporating creative practice into pedagogical approaches (Brodie, Hills, and Renfrew 2004; Hamilakis, Anagnostopoulos, and Ifantidis 2009; Hamilakis, Pluciennik, and Tarlow 2001; Ingold 2013; Renfrew 2003; Tilley, Hamilton, and Bender 2000). In conversation with this camp, Michael Shanks and his colleagues from the Metamedia Lab at Stanford University, as well as North American contributors to the edited volume *Ancient Muses,* have explored in practice (as well as critique) the potentials of alternative media practice to both realize the goals of a post-processual narrative interpretive archaeology in terms of communication, and expand the conceptual frameworks available in academic inquiry (Jameson, Ehrenhard, and Finn 2003; "Metamedia at Stanford: Home" 2015; Pearson and Shanks 2001; Shanks and Tilley 1987). The American voices on this topic engage both practical and conceptual engagements with the arts, but associate creative forms of representation mostly as tools of outreach or engagement beyond an archaeological public, rather than as paradigm shifting academic frameworks of practice (Jameson, Ehrenhard, and Finn 2003; Van Dyke 2006).

It is in the context of this conversation that archaeologists have scratched the surface of the problem of representationa*lism* rather than representations. John Cochrane and Ian Russell's, "Visualizing archaeologies: a manifesto," places visual artistic practice as a tool in "a move toward non-representational archaeologies," by using visual images of archaeologies themselves, rather than linguistic symbolization, as a basic unit (Cochrane and Russell 2007, 4). They highlight the unacknowledged limits of the epistemological framework advanced since the "New Archaeology" as severely limiting: "It is imperative that archaeologists not retreat to a process-driven scientific methodology, but accept the humanistic challenges and expressionistic potential of archaeological research and narrative" (Cochrane and Russell 2007, 5).

Visual forms (in Cochrane and Russell's examples, internet-sourced collages of images) have the potential to render archaeological questions and narratives outside the confines of scientific explanation. There is an inconsistency in this argument—however compelling it may be as a call for innovative, emancipatory approaches—because they ignore the critical reading of visual media offered by more "mainstream" (in their reckoning) archaeological narratives that point out the masking potentials of visual media. Admittedly, this reversal can be productive insofar as it pushes against a denial of humanistic/expressive modes in "scientific" archaeology, but it merely represents an extreme pendulum swing, valorizing non-linguistic modes of expression as emancipatory without truly engaging with an analysis of representative forms. Moreover, the aesthetic aspects of these works have not been evaluated from the rigorous stand point of visual arts and performance. Doug Bailey (2014) calls for not only the acceptance of "creative" or "artistic" engagements with archaeological representation, but for a mutual boundary-pushing in both disciplines that resists the foundational "cut" between the two disciplines. (I use the language of Barad's "cut" (2006) as a gesture towards a movement closer

to New Materialist problems with representationalism than previous archaeological engagements.)

Moser, and Russell and Cochrane, operate with a fundamentally different definition of representation. In Moser's version of archaeological representation, while images and other archaeological inscriptions can circulate and have impacts on evolving modes of thought, they are at their core fixed as objects. Russell and Cochrane, as well as Bailey, consider representations as stoppages in a continual process of re-presentation of the past in the present. They see the inscriptions that circulate both inside and outside of academic contexts as inscriptions at the intersection of practices inspired by anthropological approaches to art like those of Alfred Gell (1998; see also Bender et al. 2007; Tilley, Hamilton, and Bender 2000). Works like these presume that there is value in interrogating representational practice, but rather than relying solely on critical analytic frameworks, they emphasize a positive, prescriptive approach to exploring "new" (to archaeology) methods of expression (C.L. Witmore 2004; 2005; 2006; Hamilakis, Pluciennik, and Tarlow 2001; Webmoor 2005). Attempts to counter, or at least engage with, representationalism by archaeologists can be seen in new and emerging work from Russell and Cochrane and Doug Bailey (2014; 2014), all of whom emphasize a creative, rather than receptive, approach to archaeological products.

Maps and Counter-Maps

Recall from Chapter 5 that during four weeks in 2017 a crew of Berkeley graduate, recently graduated, and undergraduate student volunteers, nine Abiquiú high school interns, and I surveyed 4.9 miles of historic acequia in the communally held lands of el Pueblo de Abiquiú. The primary way we recorded acequias was through a map. There are a number of reasons for this. One is that this is the language of water adjudication in the state of New Mexico. As I discussed in the previous section, mapping is the first step in the state control of water. And so, for Abiquiú and the BACA Project, mapping, an essential tool of archaeologists conventionally, is a way of asserting authority that the State Engineer will recognize as evidence. The map is also one way of describing the acequias in the context of a broader landscape that includes the cultural watershed, other historic assemblages, and contemporary uses and understandings of space. As features, the acequias span miles. Their agricultural purpose, to irrigate fields, is inseparable from the land through which the water flows and the history of the people who created and maintained them. Acequias' other habits (signaling Hispano or Indio-Hispano identity, and structuring communal activities and governance) are also part of this flow, this landscape, which the spatial aspects of the map tries to convey.

Standard cartography belies many of the complexities, uncertainties, and multiplicities of the acequia emplaced in the landscape. Scholars of geography and practitioners of critical cartography have made good arguments for the violence of conventional mapping, its location within practices of colonial and state domination, and the need for ways to map an activity of upending these hierarchies and traumas (Akerman 2017; Cole and Sutton 2014; Crampton and Krygier 2006; Kim 2015; Wood, Fels, and Krygier 2010). The power of maps is part of the philosophy of representationalism. The map points to something in the world but has no connection or effect on it. To the contrary, people in Abiquiú know that the absence of a map at the time US government surveyors made representations of their Land Grant for official land patent in 1909 meant that Anglos created a newly powerful representation of Indio-Hispano land. This had serious consequences for their use and inhabitation of the landscape as I discussed in the previous chapter.

The truth is that much of archaeological analyses, like those of US land patents, rely on the logics of x-y-z spatial ordering, of the grid, the square, the corner, the "precision" of the map. In this project, the precision of these mapping practices was essential, both to produce documentation that would "count" in the language of the state, and to identify micro-patterns within the huge scale of the historic acequia system that start to tell a meaningful story about Genízaro water use. However, in direct response to the extractive history of map-making in Abiquiú, local youth made the maps in two very different ways.

The first were GPS-based geo-located maps. The BACA crew used a high-accuracy GPS device (Trimble GeoHX with Tornado antenna) to locate acequia ditches, features, artifacts, and data collection points on the universal grid. They then learned how these points make their way through a series of mathematical conversions in order to be represented visually in a Geographic Information Systems (GIS) database. To prepare for the intern-led community forum, the BACA crew dove into the freshly minted data to make representations. We taught the interns the basics of ESRI ArcMap, which the library has on its public computers. The interns themselves visualized the points, lines, and polygons that constituted a large part of their labor in the field. This was an important step to take abstracted data (represented by strings of numbers) into a visual form that held meaning for both the Abiquiú community and other institutions. It is an important step of both analysis and interpretation that is easily erased through the conventions of viewing maps as direct representations of what is there, rather than an argument about what they saw.

It was similarly important to teach the interns the skills of creating these maps, not only to present them as community-authored, but to develop the ability to help their community access information. They are the people who remain long after the fieldwork is done, and an essential part of creating these maps was setting up a context in which interns can start to be conduits within the community. In essence, the goal was to make the outsider archaeologist nearly obsolete. Of course, that outsider archaeologist in this case was me, and the project has not achieved that aspiration in total. I still hold much knowledge that makes my access to and interpretation of the data an important part of the equation. But, when thinking intergenerationally, these first maps are a step to a self-determined and self-sustaining set of archaeological data.

We represented the ditches for this first feedback event as solid lines across a two-dimensional satellite image. In reality, these acequias are currently in various states of visibility on the landscape, and as archaeologists we had varying levels of confidence when documenting them based on collaborator knowledge, relationship to the rest of the ditch, and other elements like trees and rock alignments that represented the patterned effects of acequia practice. These representations start to tell stories, to translate our experience in the field as embodied archaeologists, visitors, and members of the Abiquiúceño community into the two-dimensional screen/sheet within a Cartesian grid.

At first glance, the second set of maps hardly look like maps at all. Two months after our 2017 field season, I returned to Abiquiú with artist Brea Weinreb (who was also part of the volunteer field crew) to work with interns on producing creative representations of their BACA experience. We began from our memories of the same events that had produced the GIS maps of Abiquiú's acequias: walking the landscape with an eye for historic features and artifacts, following acequia ditches as they hugged hills and faded into fields, walking Vallecitos Creek to see the origin of the acequia, riding in Bernie's truck as he identified acequias at ten mph, and digging the ditch with Virgil in a summer rainstorm.

While away from Abiquiú, Brea and I had reflected on the relationship between our acequia work and the biggest tourist draw in Abiquiú—Georgia O'Keeffe's house. As a painter, Brea had studied the power of O'Keeffe's representations of the Abiquiú landscape—Cerro Pedernal, whose volcanic flattop kept us company during long days "in the mountains," Tierra Amarilla and Plaza Blanca whose colored canyons hug the opposite side of the Chama River, adobe doorways and wooden wIndiow frames that look like home. Absent from these evocative images, however, is the heart of our time in Abiquiú as part of the BACA Project: people. This absence exists in many representations of Abiquiú, both creative and documentary: photographs of empty lands and buildings by photographers like Paul Strand and Alfred Stieglitz, the map made by US surveyors, the academic narratives of Genízaro people as non-existent, dead, gone. They are absent even from our GIS maps of the acequias we so diligently recorded.

Brea and I developed a prompt to guide interns in visually reflecting on this fact. We chose the medium of collage, a process not unlike the collecting of shapefiles and layering of visual information in a GIS. We gave each intern a print of an O'Keeffe painting on which they could embed images of themselves during field work, objects, sites, and landscapes we encountered, along with words, images, and drawings of acequias. Through this collage, the students created counter-maps (Hunt and Stevenson 2017; Kiddey 2014; Kim 2015). These maps do not follow a coordinate logic. They do not tie one event to one place, but rather expand the viewer's potential to think temporally and politically. They enact what these Genízaro students do everyday by living where they live, being who they are. They assert a presence. As Brea and I write in the project statement, "By collaging photographs and illustrations from archaeological field research on the Pueblo's communal lands over prints of Georgia O'Keeffe's paintings of the area, we rewrite Indigenous bodies into the canon of art history and challenge issues of (mis)representation of native land" (Brea Weinreb n.d.).

Through these counter-maps, interns participated in a complementary process of visualizing their experience. GIS maps and these collages together form representations that speak to and, sometimes in meaningful ways counter, each other. They are indicative of the ways representations are not separate from their objects, but rather part of the congealments or intensities of materiality that make phenomena.

Figure 6.2 Two collages produced by BACA interns serve as counter-maps

Narratives Two Ways

Maps are narratives. They use visual conventions, words, symbols, colors, textures, and shapes to tell stories and make claims about the world (Wood, Fels, and Krygier 2010). In addition to the map-narratives produced above, the ongoing narrativization of data created in survey, and across the years of the project, is a product of archaeological collaboration. This includes this document, a meta-text on some of the narratives so far produced, and other circulating stories. Joyce et al. (2002) have described archaeology as a dialogic process of narrativization that produces texts in a variety of media. However, the conventions of the genre of archaeological text-making tend to privilege "hierarchically structured authority" (Joyce 2002, 6), in the place of the kind of dialogic knowledge production that is foundational to the process of developing these texts. Here, I reflect on how genre influences the representation of knowledge production in the BACA Project. What follows is a narrative that I have begun to compile for a series of reports for the Merced del Pueblo de Abiquiú. This site-based narrative articulates with the landscape scale narratives represented by the maps above and the creative narrative produced by Abiquiú interns in the form of a "zine," which I discuss at the end of this section.

In Chapter 5, we see that previous excavations of acequias in New Mexico and elsewhere in the Southwest have described particular material patterns visible on the ground surface, and observation of excavation profiles that augment the documentary and oral history record. These patterns—the ways acequias were constructed in different areas, at different times—index practices that were shared, communicated, or negotiated among a group of people—an acequia community—in Abiquiú's case, a Genízaro community. In the present day, acequia practice includes a sense of community; it has norms and diversion from the norms; it functions in an agricultural sense, but is also symbolic, nostalgic, political, and future-oriented. So, too, is acequia practice in the past, judging from my collaborators' accounts, historic documents, and academic analyses (Arellano 2014; Ebright 2006; Rivera 1998; Rodríguez 2006). The traces of these past practices are part of the contemporary moment, not distanced from it. Within this congealment is the power, meanings, and operations of acequia culture.

The patterns of acequia practice are visible at the scale of the landscape (as seen in the previous section), the scale of human perception, and the microscopic scale. They are patterns of atoms, minerals, and grains of sand, as much as they are patterns of yearly *limpia* and religious blessings, and experiences of plenty or scarcity. Documenting the historic acequia associated with three areas of the Merced produced preliminary data, through which I can create a particular narrative of acequia practice through time.

The Abiquiú Land Grant is 24,000 acres of land just south of the Rio Chama, extending up to a mesa and continuing in a large rolling plain dotted with small trees and rock-topped hills until it reaches the boundary of forest service land, the foothills of Polvadera Peak. The BACA survey in 2017 covered the southeastern corner of the Merced. This section is primarily open range land, cross-cut by a central access road that leads through the grant to forest service land, and other tracks that members of the Merced use to access grazing, hunting, recreational, and sacred places, as well as private property. We surveyed three branches of the historic acequia system. Two (segments A and B) appear to connect to Vallecitos Creek past the southern boundary of the Merced, potentially also connecting to the active Mora Community Ditch. The

third (segment C) connects to Vallecitos Creek within the grant, near its southeast corner. Each branch was surveyed alongside a domestic site that, due to proximity, is associated with the use of the acequia.

Segment A and San Antonio de Vallecito

The first segment of acequia (segment A) is associated with the site of San Antonio de Vallecito, just off the main road through the Merced. The narrative that already circulates about this particular area is that there was an early settlement and subsequent homesteads that used the acequia, still visible today along the road. The residents of the adobe pueblo whose remains lie just to the east of a portion of this acequia is debated, but later residents of the homestead to the east and west are known relatives of Abiquiú families. These homesteads are known by Abiquiúceños as places where siblings were born and crops grew, until the water ran out and all the men went to war in the 1940s. The history of the former plaza called, San Antonio de Vallecito, is muddled with the history of the overlapping Vallecito de San Antonio Land Grant and the shifting boundaries of Abiquiú itself.

Gauthier and Brown (2016) published interpretations of the San Antonio de Vallecito site, resulting from their work on adjoining United States Forest Service (USFS) land and special use designations with the Merced. They have submitted the site for a Library of Anthropology (LA) records number based on survey work done in support of a Merced infrastructure project. They describe an adobe plaza structure, consistent with other Genízaro plaza and rancho settlements in the New Mexico borderlands, measuring sixty square miles, which is visible today as large mounds with a single opening to the south and an acequia on the north and west sides. Artifact scatters are dense at the edges of these mounds, likely room blocks of the plaza, and include primarily ceramic artifacts and faunal remains. Ceramic wares primarily include trade wares from Tewa villages, different types of micaceous ware, and possible local style ware, with two transferware ceramic sherds recorded during their survey. A glass trade bead and gunflint were also reported by Gauthier and Brown (2016). These artifacts suggest the occupation of the site was between 1700 and 1850 (Gauthier and Brown 2016, 123), an estimate consistent with the community knowledge of the site dating to the same time as the main plaza in Abiquiú. (This dating recalls, for instance, the forced relocation of Hopi people to what is now "el Plaza de Moqui" in 1742, and the formal granting of land to Genízaro families in 1754.)

A preliminary geophysical survey was done by Del Bohnenstiel of North Carolina State University, in partnership with BACA in 2014. The early, unpublished BACA GPR data also confirm Gauthier and Brown's (2016) characterization of the area as containing a small plaza and adobe outbuildings with an acequia ditch nearby. The ditch referenced in these two descriptions of the site was the starting point for one of the three segments surveyed by the BACA water project in 2017. We focused our survey on the acequia ditch and the three meter buffer along either side, as well as an open area to the west of the acequia near the plaza, which would have been a likely location for irrigation. The presence of ceramic artifacts on and along the near side of the acequia's slope, as well as exclusively lithic artifacts moving west towards an arroyo that may also have been part of the acequia system, supports the interpretation of this area as an irrigated field.

San Antonio de Vallecito Survey Area

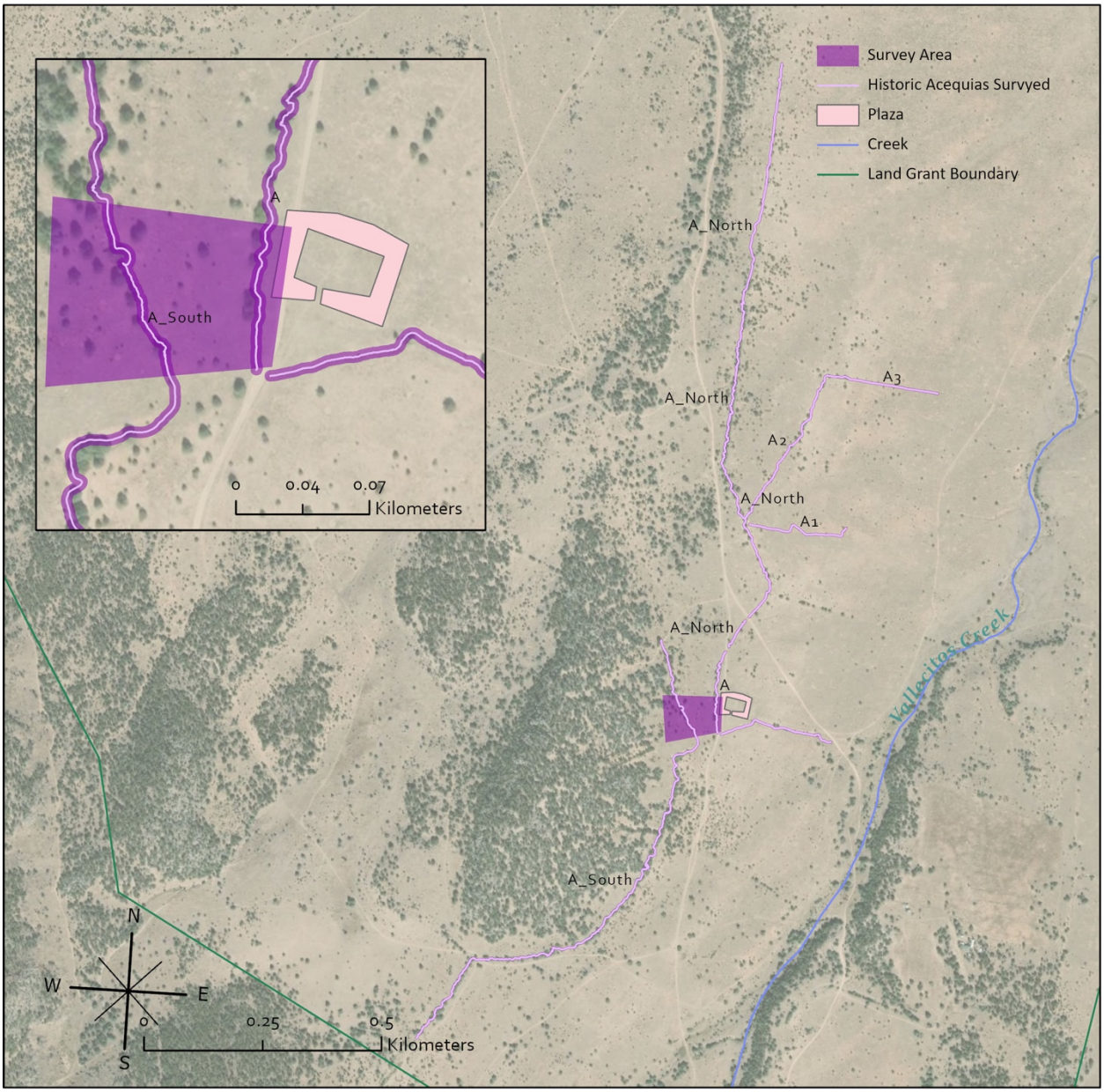


Figure 6.3 Map showing San Antonio de Vallecito plaza, survey area and acequia segments in the A group.

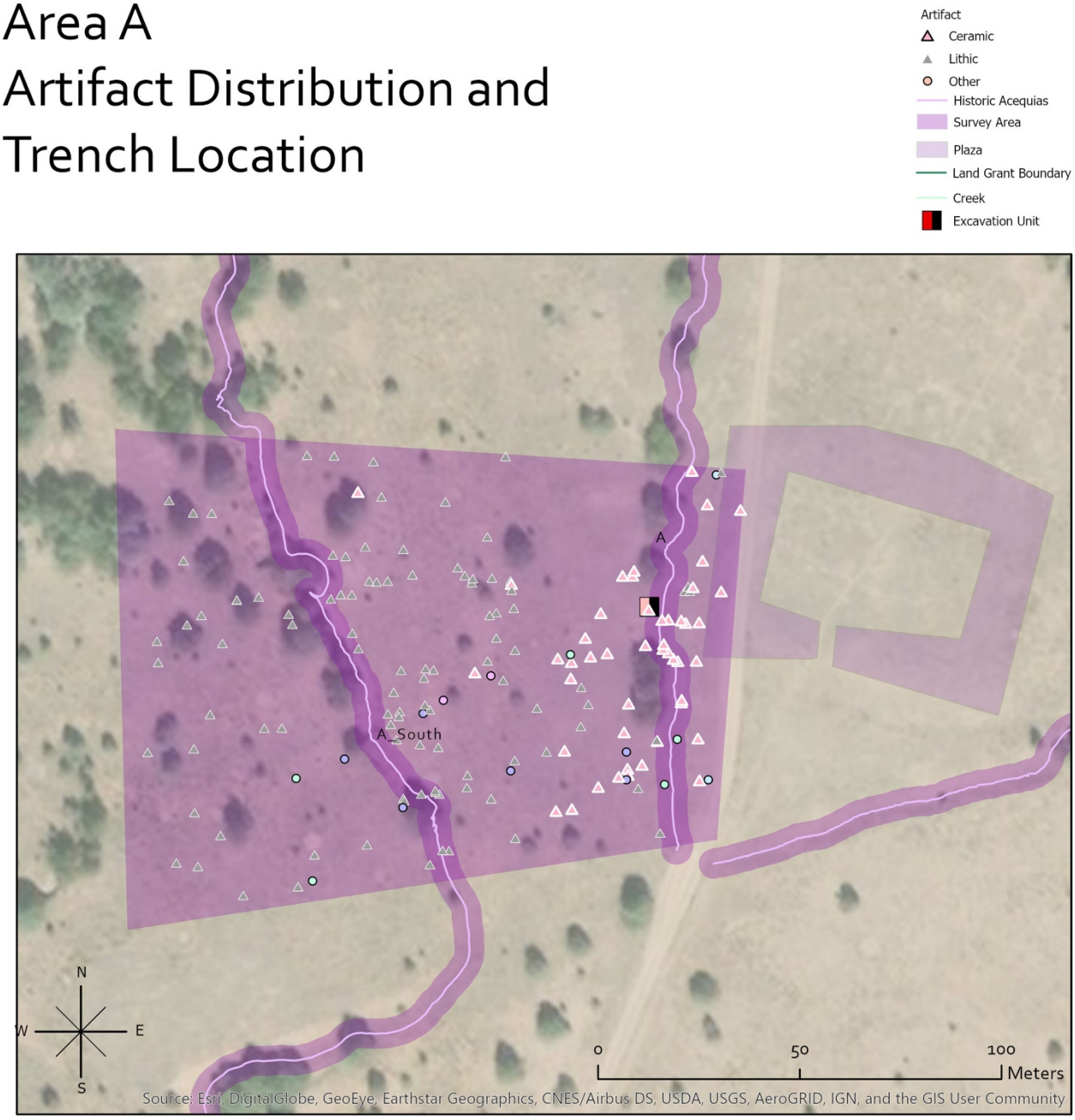


Figure 6.4 map showing Area A artifact distribution and test trench location

The historic acequia system is visible on the surface in a 265 meter long, nearly straight segment that begins to the south east of the plaza and runs until it is interrupted by the modern road (segment A). The ditch in this segment is a distinct U-shaped channel that ranges from 1m to 4.5m wide, and 17cm to 53cm deep. Ten juniper trees line segment A, while one showed evidence of having been cut, potentially to keep the area above the acequia clear. A berm (also called a "spoil pile" in other archaeological reports) was also evident on the eastern side of the ditch. Three large oblong depressions with large rocks outlining their edges extend from the ditch downhill to the west (in the direction of the suspected field), and are likely either holding ponds or sangrias (Features 5, 6, and 7).

The ditch (A_north) continues from its intersection with the road 1.5km to the northwest in a gentle curve, following the edge of a low rise to the east of the modern road. Two laterals of this segment (A_2 and A_3) continue downslope to the east, potentially feeding back into Vallecito Creek. Like segment A near the plaza, A_north appears to water fields downhill, this time to the east instead of west. At the southern end of segment A, just southeast of the plaza, lateral A_1 flows at a right angle directly east to Vallecitos Creek.

To the west of this diversion point, another segment (A_south) runs at least 1.5km, hugging the base of a small hill with rocky outcroppings and trees. This segment likely connects to the Mora Community Ditch, though we did not follow it past the boundary of the Land Grant. The connection between segments A and A_south is not visible on the surface, likely having been destroyed by the construction of the road and erosion. To the north, A_south becomes a deep arroyo, and to the south becomes a comparatively deep and wide ditch that had recently been cleared of trees and other shrubs at the time of survey. Three features that are younger than San Antonio de Vallecito are directly adjacent to the ditch near the boundary of the Land Grant, including two structure mounds with dense late historic artifact scatter and a large holding pond connected to the acequia by a 200m shallow ditch (Features 3 and 4). These structures are present in the 1946 USGS map of the area.

If we extrapolate connections between all three parts of segment A, plus the associated laterals to Vallecitos Creek, this totals over 4km of historic acequia. If we also speculate that segment A, associated with San Antonio de Vallecito by proximity, is connected to Vallecitos creek via segment A_north, than the ditch would have been used as early as 1700, perhaps continually through the time of features 3 and 4, which may be as recent as the late 20th century.

To explore these speculations, the Merced authorized a 2m by 90cm test trench in segment A near the plaza of San Antonio de Vallecito. We chose an area of this acequia away from trees that appeared to be very well preserved, and included a berm to expose a vertical profile of the ditch. Bohnenstiel's preliminary interpretation of ground penetrating radar (GPR) over the sampled area suggested that the current depth was similar to the depth during historic times and had not experienced much infill (Bohnenstiehl personal communication 2014).

The profile revealed by this trench showed four distinct strata, layered to suggest the infill of the acequia *after* use. Below a thin stratum of topsoil, a 20cm deep layer of sandy loam (II) overlaid a harder, more compact stratum (III) and an extremely compacted pink-white caliche-rich stratum (IV). Based on field observations, Stratum II appears to represent post-use infilling of the acequia, and the boundary with Strata III and IV represent the historic cut of the ditch itself.

From this profile, two Oscillating Spectrum Luminescence (OSL) samples were sent to the Desert Research Institute at the University of Nevada Reno for OSL analysis to determine their age (see Chapter 5, "Means" and Keen-Zebert 2018 for a discussion of OSL methods). One sample (OSL 1) came from the lower half of Stratum II, potentially representing sediments deposited during or after the use of the ditch in historic times. The other (OSL 2), from the upper portion of Stratum III, potentially represents sediments below the historic, original cut of the acequia. If the ditch was in use during and after the occupation of the plaza San Antonio de Vallecito, then we would expect the date of the sample from the infill to be at least 1700, if not earlier, and the sample from below the cut to be significantly older (perhaps at a geological timescale).

Results from the OSL analysis gave the infill sample a calendar date of 150 (+/- 70) years before 2018, and the below-the-cut sample a calendar date of 1160 (+/- 260) years before

2018. In calendar years, this means the infill sample was last exposed to sunlight in 1868 (+/- 70 years), while the below-the-cut sample was last exposed in 858 (+/- 260). Even if we include the range of the error for these analyses, the infill sample dates between 1798 and 1938, and the below-the-cut sample to between 598 and 1118. This fits well with our current understanding of the history of the San Antonio de Vallecito site, but does not give us a *terminus post quem* because the dirt from which the sample was taken cannot be conclusively linked to the interface between the historic ground surface—only an event of infill at some point in the life of the acequia. The date, 1868 AD (+/- 70 year), is the *terminus ante quem*. The ditch has to be at least 82 years old, but more likely it is at least 152 years old and could be at least 222 years old.

Alongside this direct dating technique and the macro-stratigraphy, we also collected micromorphology samples from this trench (see Chapter 5, "Means" for a discussion of micromorphology methods). From the samples taken, we can look at the microstratigraphy and connect the OSL samples to material congealments of acequia practice (Johnson 2019). OSL 1 was taken from the area represented by Sample 1, the lower portion of the suspected infill stratum. The features in this sample suggest sluggish water, perhaps from the infilling of the canal, which is consistent with both the use and post-use taphonomy of acequia ditches. This suggests that the OSL date of 1868 is associated with the slow flow of water in this acequia. The lower portion of Sample 1 shows a very fine silt layer at the boundary between Strata II and III, suggesting more quickly moving water and the deposition of fine sand at the interface. Other micro-features from Stratum II show patterns consistent with shrinking and swelling of sediment (from wetting and drying), slow water flow, rising and falling water level, and discrete flow episodes. The presence of charcoal in one sample associated with Stratum II is consistent with either the burning of nearby areas to keep the ditch clear or the flow of sediment from burned areas upstream. (Intriguingly, though Stratum II was identified as continuous, there was an increase of larger components noted during excavation in the western portion of the profile. This was confirmed by the higher variety of large basalt components in sample 4, which could suggest the presence of a berm, or spoil pile, from the digging out of the canal.) By contrast, the micro imagery associated with Stratum III from Micromorph Samples 1, 2, and 3 does not show any features of water, supporting the interpretation of this as the pre-acequia ground. Micro-features from Stratum III suggest the movement of sediment to the area from an older formation of basalt that Stratum II, also consistent with the OSL data.

These features, from the human scale to the microscopic, illustrate the existence of acequias as a congealment of phenomena in intra-action, rather than a singular entity. They also illustrate a hydrosocial material analysis, each geologic morphology representing the physical flow of water and a cultural moment.

Sample number	Depth (m)	Altitude (m)	n[a]	Over-dispersion (%)	D_b (Gy)[b]	U (ppm)	Th (ppm)	K (%)	External beta dose rate wet (Gy/ka)	External gamma dose rate wet (Gy/ka)	Cosmic dose rate (Gy/ka)[c]	Total dose rate (Gy/ka)[d]	Age (ka)[e]
OSL001/BACA001	0.4	2371	28 (48)	69	0.63 ± 0.29	3.57	12.75	2.54	2.38	1.53	0.35	4.25 ± 0.23	0.15 ± 0.07
OSL002/BACA002	0.5		35 (45)	47	4.22 ± 0.90	2.47	11.00	2.26	2.03	1.27	0.34	3.64 ± 0.20	1.16 ± 0.26

[a] n is the number of D_e determinations accepted after screening; in parentheses are the total number of aliquots measured.

[b] The burial dose, D_b, was estimated using the minimum age model (MAM) (Galbraith et al., 1999) and the error is the standard error.

[c] Cosmic dose rates (Gy/ka) are calculated according to Prescott and Hutton (1994).

[d] Dose rates (Gy/ka) were calculated using the conversion factors of Adamiec and Aitken (1998) and are shown rounded to two decimal places; ages were calculated using values prior to rounding; central values are given for dose-rates and errors are incorporated into that given for the total dose-rate.

[e] Luminescence ages are expressed as thousands of years before AD 2010 and rounded to the nearest 10 years. Error is 1 sigma.

Figure 6.5 This table prepared by Amanda Keen-Zebert at the Desert Research Institute, shows the results of luminescence dating from the test trench at San Antonio de Vallecitos

Segment B and Homestead 1

"Canoñcito" is the area west of San Antonio de Vallecito, near the southern boundary of the Land Grant. This was the first area we surveyed, as Bernie thought it demonstrated a hard-to-see, but important section of the historic acequia. He told us that his father used to walk him around the area and describe where the acequia ran. To the north of this section of historic ditch lay the remains of a homestead (Homestead 1). Bernie didn't know whose this had belonged to, but it was similar to the ruined homestead of his grandfather that lay further to the north.

Homestead 1 sits along a modern road with a number of features visible on the surface (Features 28, 29, 30, 31, 32, 33, 34, 37, 38, 39, 40, 41, 42, 43). These include mounds related to now-demolished structures (visible on 1918 USGS map), corrals, and a holding pond connected to an acequia Segment B_north. The artifact scatter in this area solidly dates the site to after 1900 and includes more metal than either ceramic or lithic, and later ceramic styles, than San Antonio de Vallecito.

The longest segment of the acequia in this area of the merced (Segment B) is south of the Homestead 1 site. It runs 960 meters north in a flowing curve around a tall hill. It begins at a large wash at the boundary of the Land Grant and ranges from 0-1.4m wide and from 2 to 19cm deep. It hugs the hill with relatively low surface visibility, mostly indicated by a shallow depression lined with trees and rocks, until eventually being interrupted by the road.

The connection to Segment B_north that is part of Homestead 1 was only preliminarily surveyed at the end of the 2017 season. Nonetheless, the visible portion of Segment B_north is 170m long, beginning east-west before turning ninety degrees and flowing north to the site of the holding ponds and other features at Homestead 1. Segment B_north ranges from 0-210cm wide and only 3-15 cm deep, as it runs along a relatively flat area surrounded by trees. Segment B_south is on the far side of the Land Grant boundary from Segment B. It is this segment that Bernie remembered his father telling stories about. It appeared very likely that the ditch connects to Segment B in an area that is now a wash. It runs 987m east-west, hugging the side of another tall hill, and eventually connects to Segment A_south via a short segment. It ranges from 30cm - 1.4m wide and 3-400cm deep.

The Merced authorized a test trench in the B section of the historic acequia network, which we sited in Segment B_north near Homestead 1. This portion of the ditch runs between some large pine trees about 4m to the north and south. It is relatively shallow, but with evidence of a berm. This area is shallower than that tested at San Antonio de Vallecito, though it appeared relatively well-preserved given the flat surrounding topography. Trenching revealed a profile with very distinct ditch morphology. Below a thin layer of loose, rocky topsoil (Stratum I), a compacted sandy clay Stratum (II) filled a distinct bowl-shaped cut on the west side of the profile. Within this bowl ,a small Stratum (III) of similar color and consistency has a higher inclusion of small pebbles, which could be the result of an earlier infill event. On the east side of the profile, another cut filled with very loose sandy clay corresponds with a surface depression and appears to be unassociated with the acequia cut.

Micromorphology of these strata demonstrate some intriguing features, including evidence for the gradual rise and fall of water (suggesting a sustained presence of water), crystal growth (suggestive of evaporation), and complex layering of fine silt and streaks of clay at the boundary of the infill Stratum and the acequia cut (suggestive of distinct episodes of intense water flow).

Segment C and Abiquiú Vieja

To the east of both Areas A and B, Area C contains a named site and acequia segments known to collaborators. The name Abiquiú Vieja (or Old Abiquiú) given to this area by Abiquiúceños suggests that this was one of the central areas of settlement of the rangelands. Virgil Trujillo walked us to the central segment of the ditch on a high rise to the east of the low-flowing segments of Vallecito Creek. He said that when the flow from the creek was stronger and year-round, the whole area east and north of the ditch segments were irrigated. He also said that a relative of his had a house with the acequia running right past the front door.

Abiquiú Vieja sits on a hill to the east of Vallecito Creek, overlooking open range land to the north. Comprised of a number of structure mounds that suggest a plaza, the area also appears to have been cleared for grazing or framing, judging by piles of rocks to the west of open flats south of the structures. Artifact scatter in this area is primarily ceramic, though plentiful commercial whiteware and historic artifacts, like doll parts and harmonica elements, suggest occupation into the late historic as well. South of this plaza, just north of an arroyo which the acequia segment edges along, the remains of a late historic period structure is evidenced through rock alignments, metal artifacts, and cut lumber. The acequia runs in front of it, suggesting that this was the structure mentioned by Virgil as the home of one of his male relatives until at least the 1940s.

The segment of ditch Virgil identified was barely visible, given its position on a steep slope—however, cut trees and rock alignments made it possible to estimate the position. We were able to identify a possible source on Vallecitos Creek and follow these alignments north, up along a steep slope to the east of the creek. This segment, Segment_C, draws water seemingly uphill to the open grassland above, through dense trees for about 229m. Its visible width ranges from nearly 0-905cm deep, until it joins an arroyo. It becomes less visible when it opens up, where I labeled it Segment_C_north to differentiate between the level of confidence in our recording. However, it is extremely likely that the ditch follows the edge of an arroyo, and runs through a site that is likely the remains of Virgil's relative's house (characterized by lumber, nails, and a bucket constructed within the trees) and a clear rock alignment following the gradual decline of the slope. This segment is 702m long and ranges from 59-266cm wide and 0-33cm deep. Just to the south of the structure mounds, the ditch appears to veer or intersect with Segment_C_east. This ditch is highly eroded and flows through what appears to be a mostly flat plain for 295m. It ranges from 140-1380cm wide and 4-40cm deep.

The test trench in this acequia was sited in Segment C_east as a sample of what an extremely deflated, shallow ditch would reveal in profile. The location comes from a segment of ditch near the Abiquiú Vieja structures, but likely where open area to the east suggests fields would have been irrigated. Despite the surface appearance of minimal ditch morphology, the profile of this trench demonstrates a wide but distinct U-shaped ditch. Below a thicker layer of topsoil than the other two trenches, a similar infill layer likely represents post-use infill, and Stratum III represents a more compacted pre-acequia formation.

Unfortunately, budget constraints meant that only one of the micromorphological samples from this trench were processed and analyzed. At this time, no interpretations can be made from those samples without comparison with others from the trench.

Comparing these sites to each other helps me think through a timeline of acequia practice in the communally held rangelands of the Merced. Based on architectural remains and artifacts, these three sites appear to cover the time period from the 1700s all the way through the 1950s. The ditches don't have comparable timelines, but their associated sites can serve as proxies for their use in irrigation. All three segments appear to use the same normative strategies of elevation change to maintain water flow over long distances. However, water to Homestead 1 and the areas around San Antonio de Vallecito would have had to flow much further before reaching the domestic sites than in Area C. In general, surface morphology between Areas B and C are more similar than the deeply trenched and relatively low-lying segments in Area A. This may be a result merely of the topographical conditions, but could also suggest slight differences in forms of construction. Quantitative data supports the similarity between Segments B and C, but micromorphological interpretations of A and B suggest similar water movement and flooding episodes despite macro-scale differences. This is all to say that, despite variation, I interpret the acequias as part of a continual, coherent system of irrigation put in place in mid-1700s, and growing and evolving until the 1940s.

This narrative follows genre conventions of archaeological writing which treats archaeological documentation as neutral, and develops hypotheses and interpretations from it. However, in opening each description with the knowledge held by Abiquiú community members, I hope to gesture, albeit subtly, to the ways in which the data I interpret actually originates from that knowledge. Taking this as true, and thinking through the concepts of hydrosociality and materiality, I wonder how to convey the hydrosociality of the data, interpretation, and the narrative itself. Each element I focus on in the descriptions of the ditches, the macro and micromorphology, as well as the OSL dates are hydrosocial congealments. That is, they are intensities of matter that structure relationships between water and people, and, in this case, time. Micromorphology, in particular, erects a bridge between the past flows of water-people at play in the formation and use of the acequia system, and the present where the BACA Project team and I are water-people dealing with the absence of water as a historic index. The materialist approach does not privilege the water over the people in this case; rather, it attends to their similarities in order to develop a complex understanding of the kind of sociality at play. It is not so much that people make water social in the case of the acequias I narrate here, but that their shared materiality shifts the conversation away from one of marking boundaries, towards one of recognizing intensities.

Zine

These narratives and interpretations will circulate as reports and other representations as collaboration continues. As a first step in creating other meaningful products as part of this research, we also tried something unique in the academic research context. We used the collages (described above) as a starting point for a "zine," a short do-it-yourself (DIY) magazine, following feminist, punk and riot-grrrl traditions from the 1990s to the present (Bleyer 2004; Chu 1997; Piepmeier 2008; Zobl 2009). We constructed the zine with analog media, literally cutting and pasting images from our field season onto Georgia O'Keeffe's famous paintings of the surrounding landscape, along with other backdrops, to give the interns a chance to express the knowledge they produced in their own ways.

Accessibility is central to the zine as an art form. Indeed, it was an ideal form for our purposes, as the students could design the entire publication themselves, from start to finish, including choosing who the main audience of the publication would be and how they would share it. Because zines rely on college and photo-copying, we were able to produce it in only three meetings, with a limited budget and students with a range of skills and interests. We could have, and perhaps maybe someday will, make a computer-designed professionally printed pamphlet, describing the work in the same language used in the first half of this section; but the zine importantly asserts an audience within and for the Pueblo, allowing the interns to explain the process as they understand it, and to visually represent themselves as active participants in the landscape.

After an initial brainstorming session, the interns agreed they wanted the zine to be for their peers—friends and other students their own age in the community. This guided subsequent writing exercises focused on allowing them to express themselves in their own way and focus on the most impactful aspects of their archaeological experience, using prompts like, "I remember…" or "It felt like…". The students combined these statements into poems that they pasted alongside summaries of topics, such as the history of the area and the definition of key archaeological terms.

For this, interns pulled text from the Abiquiú Library Website, BACA Project materials, and wrote their own descriptions in order to explain to their peers what they had been working on. Images of acequias wet and dry, artifacts big and small, are the background for personalized recognition. The definitions of archaeological terms take on new meaning as part of a locally meaningful practice of naming and presencing the participants in the field season:

"An acequia is fresh."
"I remember Eric getting on my nerves"
"I remember making Angel mad"
"When there were flags covering the ground from survey, it looked like something important was going on"
"This summer I learned a lot about where I live and how people used to live"
"When we surveyed, it reminded me of all the times I'd ran around up there without even thinking twice about the land around me"
"It felt like a weird [sic] family"

The texts include their voices and differ greatly from the language used on plaques just a few miles away at Ghost Ranch and the Abiquiú Dam. Sense memories and inside-jokes float on top of an image of an artifact scatter, historic bone and ceramic, traces of acequias with photo boards and north arrows.

Interestingly, the interns created what came to be a kind of yearbook. One of their oft-used sets of words were the the "Abiquiú crew" and the "Berkeley Crew," and in some of the collages each persons' image is also labeled. This was not part of the prompt for the project, but came out of a feeling that what they had participated in created a meaningful group that they wanted to recognize. One such image is a photo of a shallow acequia depression curving through dappled shade and out into the sunlit distance. In colored marker, as if they are the labels for placemarks in the GIS maps, the names of both crews follow the course of the acequia, literally embedding the group identity into the documentation of historic acequias.

None of the sites are named or located in the zine. The one project map showing the locations of the acequias we surveyed is obscured by a giant green and blue heart. The heart of the project lies, if we're to believe in the message of these works, not only in the data, but in the people who made them, and the memories and relationships produced by the work. Finally, they chose a title, "Making our Way Down the Acequia," and set out for the photocopy machine.

The end result is a collective visual document of the students' experience doing collaborative archaeological field work on their Pueblo's communal land. By emphasizing images of their own bodies doing fieldwork, and making the zine by hand, the publication is itself a trace of their engagement with landscape and history, joining the artifacts and GIS maps we produced, as an important set of data for the project. Each student received their own copy of the zine, while the rest are available for sale at the Library del Pueblo de Abiquiú. As a product, the zine clearly demonstrates the interwovenness of history on the landscape. I do this visual analysis to further assert that this is not merely a happy by-product of working with teenagers, nor an epi-phenomenon with no relationship to the narratives produced above. Rather, the narrative provided by this zine is as important a product as the site-narratives.

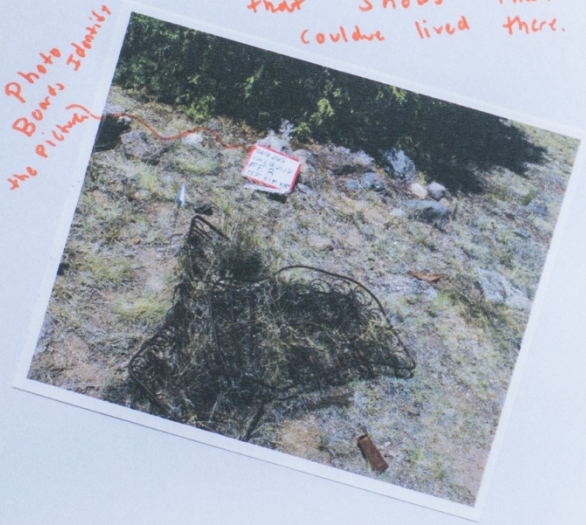
Figure 6.6 "Making my Way Down the Acequia" is a youth-created Zine documenting the Berkeley-Abiquiú Collaborative Archaeology field season in Summer 2017 documenting historic acequais. In addition to the collages shown in Figure 6.2, interns produced layouts to describe what they had learned and the sensory experience of doing field research.


ABIQUIU crew
Andrea Fernandez
Zachary Martinez
Rio Manzanares
Anita Manzanares
Eric Ortega Gallegos
Kyle Montoya
Angel Gallegos
Berkeley crew
Roze Beverly
Alexandra McCleary
Chandler Fitzsimons
Kofie Kinkopf
Annie Davis
Danny Soso Aguilar
Brea Weinreb
Moira Peckham

(FE)
Features:

Features are areas that have a bunch of Artifacts and show signs of being a man made thing like a mound with wood or a wall of Rocks. Featurs usually have a lot of artifacts in them and that shows that people could've lived there.

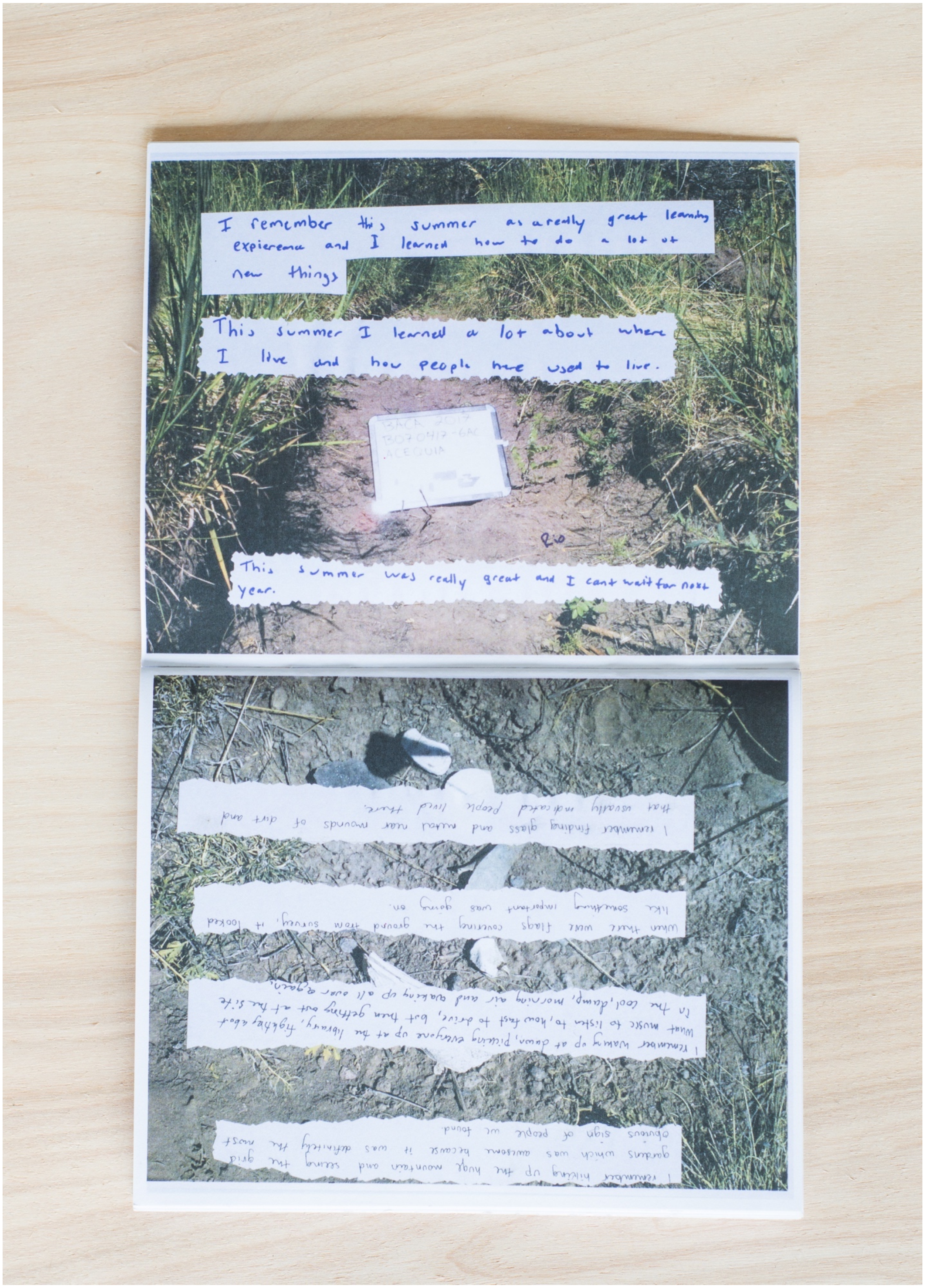
Photo Boards Identify the Picture

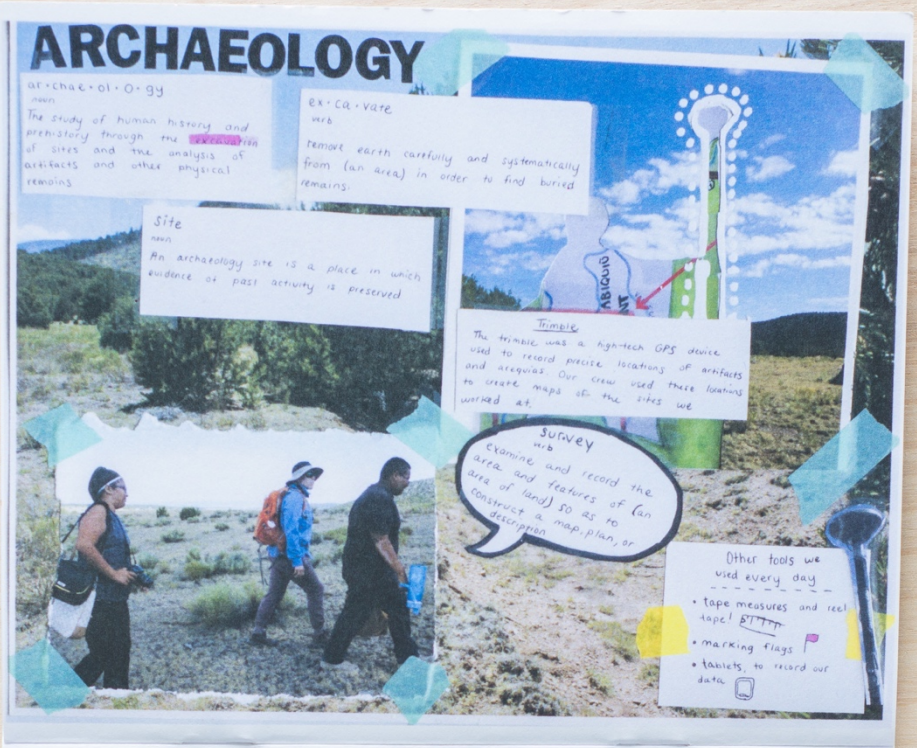


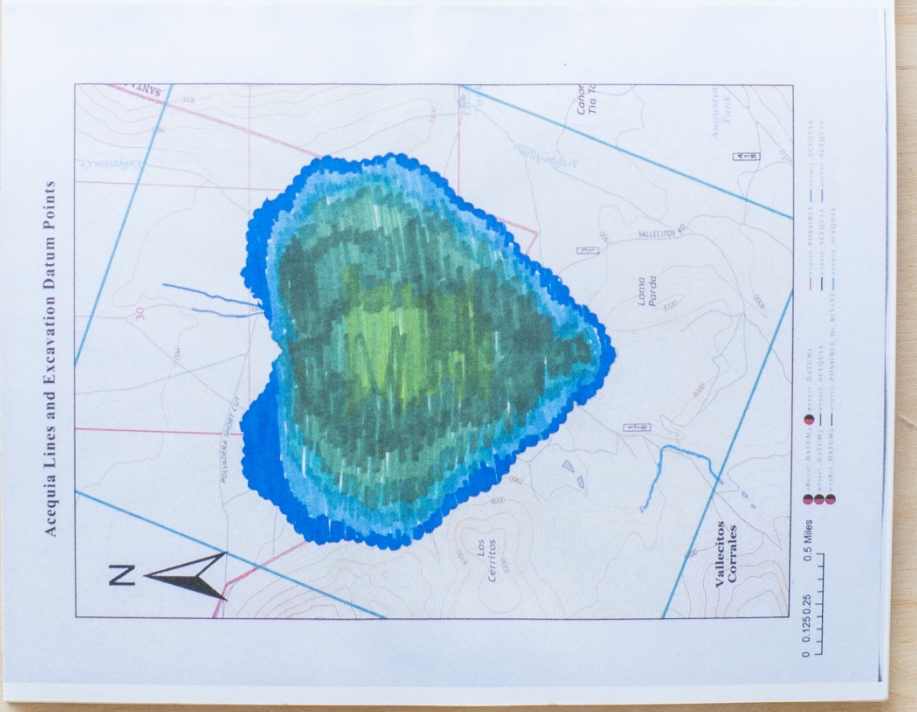
(AR)
Artifacts:

Artifacts are small pieces of Material we found up in the mountains. There are many diffrent kinds of artifacts from small blade stones to matress frames. Some artifacts had marks on them that helped us research them.

The makers mark let us identify this shard better


I remember this summer as a really great learning experience and I learned how to do a lot of new things
This summer I learned a lot about where I live and how people here used to live.
ACEQUIA
Rio
This summer was really great and I cant wait for next year.
I remember finding glass and metal near mounds of dirt and that usually indicated people lived there.
When there were flags covering the ground from survey, it looked like something important was going on.
I remember waking up at dawn, picking everyone up at the library, fighting about what music to listen to, how fast to drive, but then getting out at the site in the cool, damp, morning air and waking up all over again.
I remember hiking up the huge mountain and seeing the grid gardens which was awesome because it was definitely the most obvious sign of people we found.


ARCHAEOLOGY
ar·chae·ol·o·gy
noun
The study of human history and prehistory through the excavation of sites and the analysis of artifacts and other physical remains
ex·ca·vate
verb
remove earth carefully and systematically from (an area) in order to find buried remains.
Site
noun
An archaeology site is a place in which evidence of past activity is preserved
Trimble
The trimble was a high-tech GPS device used to record precise locations of artifacts and acequias. Our crew used these locations to create maps of the sites we worked at.
survey
verb
Examine and record the area and features of (an area of land) so as to construct a map, plan, or description
Other tools we used every day
• tape measures and reel tape!
• marking flags
• tablets, to record our data


Acequia Lines and Excavation Datum Points
N
Vallecitos
Corrales
0 0.125 0.25 0.5 Miles
Loma Parda
Los Cerritos
VALLECITOS RD

Conclusion

In this chapter, I have brought my archaeological reflections on hydrosociality, material congealment, and representation together with some of the products of engaged research on Abiquiú's acequias as part of the Berkeley-Abiquiú Collaborative Archaeology Project. I have reflected on the similarities and differences between two kinds of maps (GIS and collage) and two kinds of narratives (conventional site-based interpretation and a collaborative zine). Presenting these as part of a discussion of hydrosociality, materiality and representation, I have suggested that their production within the context of engaged research makes each an important form of knowledge production.

Acequias are hydrosocial congealments. My observations, descriptions, presentations, and interpretations are, too. If I alter hydrosociality to look at the congealment of matter that constitutes water and water-y practices, rather than thinking of them as only a dialectic between people and water, the concept expands. Acequias are neither only water that is controlled by people, or people that are controlled by water, but a complex material congealment of phenomena.

Returning to Linton and Budds' (2014, 179) questions for hydrosocial research, now from the perspective of Abiquiú's acequias, alters them. "What is water?" becomes a question not only of what people *think* water is, but how the molecules that make up water exist in intra-action with soil, landscapes, the sun, seasons, catholic processions, Indigenous growing traditions, human institutions, and bodies. "How is water known?" becomes a question about the phenomena that presence this interaction, with humans, their bodies, the soil, the sun, and more. This, then, also changes the question, "How does water internalize power relations?" into a question with materiality at the center, where ditches not only trace history, but are congealed with it—not just containers, but forms of history themselves.

Thinking through hydrosociality in this manner, I am prompted further to think of new questions. What opportunities might there be for archaeologists to engage with representations as congealments (hydrosocial or otherwise)? Can visual representations produced by archaeological research engage both contemporary people, as well as Deleuzian and New Materialist critiques of representationalism? Can we use the solid foundation of work, which reveals the previously untheorized or under-considered place of visual representations in archaeological knowledge production, to move toward a new understanding of the process of representation itself?

Art theorist, Barbara Bolt (2004), considers the potential for art practice to move "beyond representation" through a particular understanding of practice, inspired by Pierre Bourdieu, Bruno Latour, and Gilles Deleuze. She highlights the importance of experience in understanding processes of making beyond representation in the arts. This leads me to ask: Could archaeology become experience and leave the realm of representation, as Barbara Bolt claims art might? Representation is a core concept mobilized in archaeological work, whether through so-called "objective" field photographs or so-called "non-representational" photo collages that collapse time, space, academic, and popular notions of archaeological problems. As I mentioned above, archaeologists, in somewhat isolated conversations, are grappling with art practice as a method and representation as a valid site of archaeological analysis. Archaeological work on the topic draws largely on a received body of work from late 20th century literary and art theory, and does not often address the larger framework in which they represent. Combined with a burgeoning

interaction with New Materialist philosophy, it does not seem far-fetched to imagine a next step in understanding archaeological representation that addresses the relationship between the media forms and the philosophical beliefs involved in making archaeological images—beliefs, moreover, that images will not necessarily be "the way out" of representationalism.

Rather, representational practices and the process of making, using, and remaking them are the site of creative exploration of work beyond representationalism. Given the goals of engaged research discussed in Chapter 1 and the practices of research, community-based collaboration, and representation discussed here, I consider this interdisciplinary practice one such site. Perhaps it is not yet fully realized, but at least it is a place for the incubation of more practices and relations.

Chapter 7: Concluding Thoughts

I have revised this conclusion amidst the novel corona virus pandemic and months long shelter-in-place orders in California in the Spring of 2020. The research I discuss in these pages is long past fieldwork, but I continue to interpret what has emerged from those experiences. I am home-bound in a way that even dissertation writing and isolation did not prepare me for. I have lost, for the time being, the option to take this document to my Landfillian and Abiquiúceño research partners in person. Now, more than ever in my lifetime, our interconnectedness as venerable beings, connected to the flows of material and other-than-human life, are undeniable. The importance of mutual aid, the power of a sense of place, and the role of community have come to the fore of public life in a new way.

Amidst this pandemic I have the privilege of reflecting on the way research bounces back and forth between a communal and solitary endeavor. Communal research is not wholly defined by physical proximity or even direct contact or communication with others; it is a state-of-mind, a way of thinking. I have spent countless hours alone with the text you have just read. I have struggled with the ethics of writing "alone." Nonetheless, I cannot claim that this dissertation has been written only by me. I alone will gain the intellectual capital from having earned a degree for which this text is a requirement, but neither I nor my community-partners initiated research for that reason exclusively. Doing fieldwork at the Albany Bulb and presenting documentation as legitimate "evidence of a meaningful life," or working with youth in Abiquiú to explore a centuries old irrigation tradition grew from community contexts that have much more to offer.

I have drawn two different kinds of conclusions in this dissertation: topical and methodological. Through research at the Albany Bulb I demonstrate that place and home-making practices of Landfillians are a challenge to the homogenizing definitions that dehumanize people living outside and prevent therapeutic approaches to aid and governmental policies. Through collaborative research with el Pueblo de Abiquiú I have revised the concept of hydrosociality to include the enduring material traces of historical water and sociality. Both projects demonstrate how landscapes are formed and re-formed by people within the contexts of historical and contemporary colonialism and capitalism. These landscapes are part of the material context of being part of the communities I have called Landfillians and Abiquiúceños. They hold things: memories, stories, structures of inequality, the resistance to these structures, the survivance of sovereign people in hostile terrain. They also *are* these things. They are memories, stories, structures, resistance, and survivance in a way that my narrative cannot fully articulate. The new materialist concept of intra-action helped me gesture towards the fact that landscapes aren't formed by these things, rather they *are* these things (and vice-versa). The projects in this dissertation are, in hindsight, my starting attempts to suture this divide and to recognize, in a long tradition, landscapes as stories (Basso 1996) but also, in a more recent tradition landscapes as structuring and structured by relationship of inequality (Tsing 2015; Kosek 2006).

Methodologically, I have recognized the role of archaeological documentation in narratives of home at the Albany Bulb to develop creative map and image presentations that increase the impact of archaeological narratives. Reflecting on these presentations I claim that an expanded toolkit of creative practices made it possible for me to produce contextual engaged research, despite the absence of residents from the data-collection process. Likewise expanding the idea of archaeological maps to include collage and self-publishing as counter-maps with BACA interns increased the ability of the archaeological archive to continue to produce meaning beyond the academy.

These methodological conclusions prompt me to think about the future of this research--what is yet to be done. Latent within these two projects is a sense that archaeological research needs to be constructed to produce material that community members can use to create meaning. The general academic discussion of engagement to date, while promoting community needs and knowledge production, still often comes back to how the *researcher* should be. Excellent tools for collaboration, research through consensus have emerged from this. These methods we my entry point to shifting/ceding power, prioritizing community benefit, reinvesting in the community, and creating meaningful products. Thinking to the future, how can the maps, images, narratives, experiences, relationships produced by an archaeological project do more? How can research, from the beginning, be even more oriented towards producing with the community, rather than the researcher or academy, in mind? Perhaps this is in parallel with Shannon Dawdy's claim that archaeology should be "useful" and future oriented (Dawdy 2009). How can I use research to create a kind of utility that I as a researcher (who is not a community-member in these cases) cannot conceive of. The way forward is to learn more from research executed by members of communities, in particular the insights of indigenous scholars who work within their communities of origin or other indigenous groups, to think about how research is storytelling, produces empathy, and makes new futures that do not erase existing forms of knowledge.

The ODK digital field recording system I developed for use by the BACA project comes to mind in this regard. The idea of beyond-researcher-use was part of the inspiration. Jun Sunseri asked me to develop it in order to give up the data everyday so that we were not an entirely necessary element, or at the very least, each archaeologist could be substituted out. I further asked: how can we make the data recording process transparent by using a technology that youth interns could learn to use as part of a hybrid digital-analog process (Danis 2019)? This was a start, but the language we used, the data we recorded is not immediately of use to anyone in Abiquiú because of the specialized knowledge used to create it and the non-pedagogical or explanatory design of the database. I would need to think even more creatively about how a database produced using a specialized archaeological language can be transformed through its very creation. Here I am inspired by work with museum databases and collections that use indigenous language (for example in the Makah museum Bowechop and Erikson 2005). But what does this look like when the translation is not between languages but ways of knowing within the same, or similar, language? How could the ODK system have automatically translated the "data" I alienate into measurements, descriptions, and specialized language, back into the working vocabularies and ways of knowing of Abiquiúceños?

Another tool for further development is to be able to construct the purpose of a research project (to some degree) with a larger consortium of skilled theorists: community activist groups. This means partnering with advocacy groups who are already doing work with communities of people living outside, indigenous youth, etc.. It is important to ask scholars to do better, but it is elitist and foolhardy to assume that scholars like myself can do more from scratch than long-standing organizations of community activists. This is something I have learned from both projects. Both would have benefited from being more truly integrated in grassroots efforts supported by other organizations. In both places these organizations existed, but navigating their intricacies is extremely complicated and challenging.

Doing that work is not often counted as academic labor. How can this kind of orientation recognized as work within the academic paradigm. For this I propose an investigation of the "research-creation" paradigm coming out of Canadian Arts Education as it could apply to

engaged research in anthropology (Chapman and Sawchuk 2012; Manning 2016; Truman and Springgay 2015). Research-creation is an "academic policy discourse" used in Canadian research granting and advanced degree development to describe research that includes creative projects, processes, and products. It is also a methodological program that attempts to challenge some of the disciplinary cuts and problems of evaluation faced by experimental, transdisciplinary, artistic research. Not without its critics or complications (See Lowry 2015), definitions vary. As Springgay and Truman (2016) say, "[It is] "the complex intersection of art practice, theoretical concepts, and research [that] is attuned to processes rather than the communication of outputs or products." And the Government of Canada (2012) defines it as "an approach to research that combines creative and academic research practices, and supports the development of knowledge and innovation through artistic expression, scholarly investigation, and experimentation. The creation process is situated within the research activity and produces critically informed work in a variety of media (art forms)."

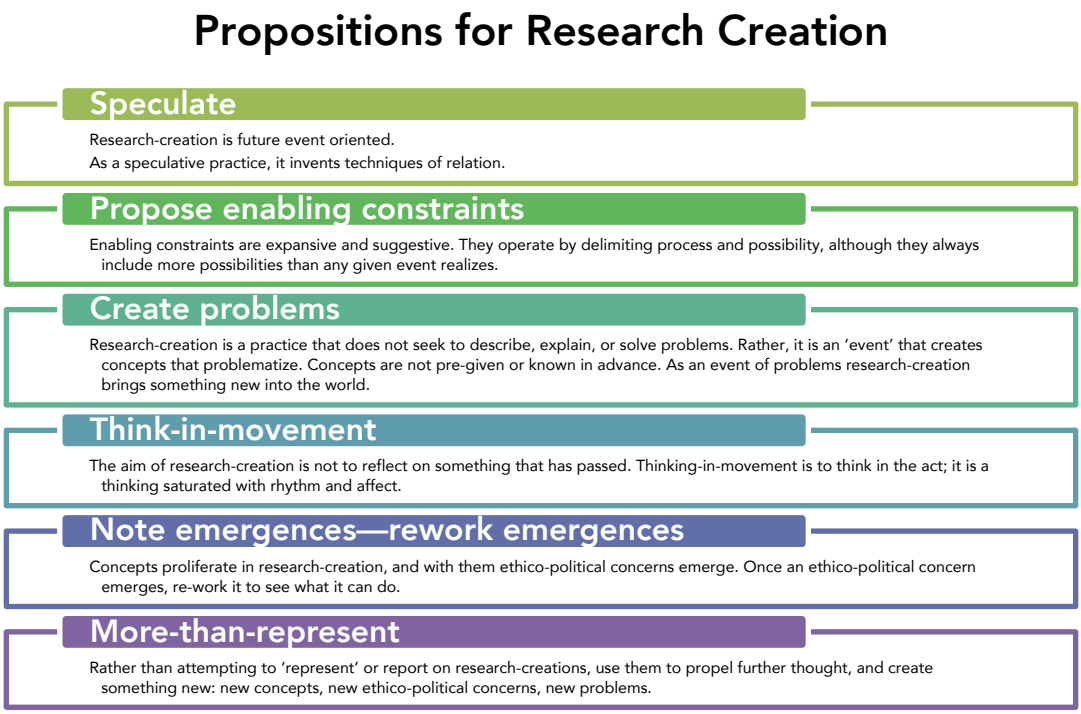


Figure 7.1 Propositions for Research-Creation (text from Stephanie Springgay and Sarah E. Truman, 2016)

About three-quarters of the way through my process with both these projects, I stumbled upon this framework for creative research. What struck me when encountering research-creation is how it overlaps so neatly with how my own approach developed in the absence of a holistic guiding principle. I drew on social-practice art and collaborative research models, and was curious to see if art and research could benefit each other. The research-creation approach has moved my thinking away from a social-practice model. Social practice (however contentiously applied to creative practice) shares parallels with the most basic forms of engaged research practiced by anthropological archaeologists. Issues of authorship, utility and value are primary problematics for both approaches. However, the knowledge-production emphasis of research-creation provides pedagogical space to link the ethical and social commitments of engaged

research to modes of knowledge production from both art practice and social scientific analysis. Stephanie Springgay and Sarah Truman (2016) propose six points for research-creation as seen in Figure 7.1. I want to use the propositions (listed below) to map out how the Albany Bulb and BACA Projects inhabit the spirit of this approach.

Albany Bulb

1. Speculate
Although the Albany Bulb Archaeology Project is mostly reflective, its position as an archaeology of the present starts from a still emergent proposition that material/historic research can participate in contemporary social worlds. It began with the question, "W*hat if?"* That is, what if I arrive as an archaeologist and do what an archaeologist does in this landscape of recent eviction and ongoing contestation?

2. Propose enabling constraints
The enabling constraints were the bread-and-butter of historical archaeology: survey and documentation, attention to material patterns and small traces. These emerged out of a realization I had to either use traditional methods on non-traditional material, or the other way around. These "traditional" things focused my attention on the intra-action that constitutes the Albany Bulb as a place of homes. It constrained my methods of inquiry to the stuff of historical archaeology—artifacts, features, and sites—but was embedded in larger projects to narrate the life of landfillians, a constraint which enabled a unique form of knowledge creation.

3. Create problems
I have discussed at some length the way the ABA sought to participate in problem solving, and in fact fell short of some of my initial goals for its impact. The third proposition for research-creation suggests that the work itself *create* problems and be considered an event. In its current form, it poses many provocations for how I might continue the work of archaeologically investigating non-traditional homes in urban contexts. It has created the concept, for me, of thinking of homelessness as a social position of non-traditional homes, rather than home-less-ness, which problematizes any future work I will undertake in that realm.

4. Think-in-movement
Thinking-in-movement, the fourth proposal of research-creation, is something I was doing a lot at the time of fieldwork and through analysis of data collected at the Albany Bulb. However, that fact did not make its way explicitly into Chapter 2. The process of developing research at the Bulb was very much "thinking in the act." I was there at the Bulb, as the traces of homes disappeared with weekly clean-ups, scribbling in my notebook and editing field forms by collecting data. The phenomenological, affective aspects of working at these sites was a huge part of the development of the ideas that made its way into these pages, especially illustrated by the story of the contact lens case. But how much do the photo database or tactile maps represent this kind of affective connection to place? The maps certainly conceptually attempt to, though in practice they don't leave many openings for "thinking-in-movement."

5. Note emergences—rework emergences
6. More-than-represent

I have noted the emergent concept of housed-homelessness. The reworking of this emergence took place through the visual creations and re-presencings, but remains open for future research. Springgay and Truman propose that, "rather than attempting to 'represent' or report on research-creations, use them to propel further thought, and create something new: new concepts, new ethico-political concerns, new problems" (2016, np). This proposition helps me reflect on how my research at the Albany Bulb has and has not been a process of "more-than-representation." In one sense, the timing of the exhibition of maps at SOMArts gallery, immediately following fieldwork, set up the objects we created to be part of something yet to come, rather than representations of completed work. But, in other ways, the textual narrations I have produced can still fall into a trap of describing what was, rather than pushing toward the creation of something new.

El Pueblo de Abiquiú

1. Speculate

Despite being research that importantly demonstrates the antiquity (relatively speaking) of acequia networks, my collaboration with el Pueblo de Abiquiú was also speculative in the sense that it oriented all research activities towards future community goals to some degree. The decisions to test acequias through excavation trenches and soil sampling organized research around the idea of a ditch biography that connected past and present, in order for narratives to be mobilized in the future to protect Abiquiú Genízaro sovereignty. By being future-oriented, research on historic acequia networks became one of the social and historical meanings and materialities of these systems.

2. Propose enabling constraints

The enabling constraints appear more broad than at the Albany Bulb, but the results, which included a public forum, the community zine, archaeological reports, and this dissertation, suggest that collaboration was the enabling constraint. As I discussed in Chapter 1, collaboration is a moving target. Despite shifting definitions, a core goal of co-constructing knowledge and ceding power to produce collaborative work informed process and possibility. Focusing on working with, rather than "about," the members of the Pueblo created opportunities, a few of which this project took up, but which continue to proliferate.

3. Create problems

On the one hand, the BACA acequia research was initiated to solve a problem. The State Engineer gave these networks "priority dates" of the 1940s, because they had not seen any earlier written evidence of their use. This was preventing the Pueblo from having the robust water rights that matched local understandings of the history of water use by their ancestors. We mobilized archaeological testing to "solve this problem." Viewed another way, however, the materially-oriented research into acequia timelines created the opportunity (a characterization which I prefer to "problem" because of a disposition towards optimism, if nothing else) to expand a notion of hydrosociality. The research creates the problem/opportunity to think hydrosociality and materiality together, which produced a number of processes including digital field forms, collages, zines, and conversation.

4. Think-in-movement

The methodologies of research noted in the previous chapters did not follow a linear development. They were constantly revised—as Virgil suggested the size of trees growing in the middle of ditches could tell us something about the date of their last use—as interns developed stronger skills in recognizing traces of homesteads and holding pens—and as I became better acquainted with the orientation of ditches to other features in the landscape. This was *both* reflecting on something that has passed—the moments of invention and habitation of the landscape over the past 200+ years by people in collaboration with rocks, water, animals, etc.—*and* thinking in the act—being in the landscape and inhabiting it anew, through the rhythms of attention and collaboration. The zine holds more than one of these rhythms and affects, weaving a formal proposition to refigure Georgia O'Keeffe's seminal landscape paintings and an open-ended process of remembering and representing.

5. Note emergences—rework emergences

Springgay and Truman's penultimate proposition suggests, "Concepts proliferate in research-creation, and with them ethico-political concerns emerge. Once an ethico-political concern emerges, re-work it to see what it can do" (2016, np). Clearly, water rights was a major concept circulating through the collaborative work at Abiquiú. I never would have participated in water-technology related archaeology without significant conversation with people in Abiquiú centering on water, and the granting and residency opportunities that supported this urgent global issue. But a number of other concepts emerge at the same time as water rights: Genízaro, acequia, hydrosociality, meaning, family, landscape, dirt, homestead, history. All these are not "things" in a Heideggerian sense of the word, but rather concepts (Berlant and Stewart 2019), intra-actions and congealments (Barad 2003). These become the ethico-political concerns that emerge from work with people in Abiquiú and continue to be reworked in my ongoing collaborations with them.

6. More-than-represent

The tug of representation is strong in archaeology, in particular, and research generally. While having open communication across groups in Abiquiú was (and remains) key to the goal of co-creating knowledge, the ways in which this took place were also opportunities to more-than-represent. To take advantage of this, group reflection, like post-fieldwork with interns, became opportunities to create new concepts about the meaning of archaeological work through collage. Perhaps these, alongside archaeological reports, ongoing conversations, future museum exhibits, and new collaborations will create new ethico-political concerns that further thinking about Genízaro hydrosociality, heritage, and landscapes of inequality.

While in residence at SFAI, preparing for the BACA archaeological survey season of research, artist, Rose Linke, and I developed a speculative institution called the Center for Hydrosocial Studies. This project is an example of how the proposition of "more-than-representation" can function in research-creation. The Center was developed as Rose and I led youth-oriented workshops at the Abiquiú Library, where students drew maps of the acequias and acequia culture they were already familiar with, created zines of these images, and wrote text describing their experience. It subsequently branched out and became a project of its own. Since then, it has included collaborations with other residents on water sculptures, research in a number of hydrosocial themes and locations, cyanotypes, collages, meetings, a dinner, a swim-club, a storefront office where "intake interviews" framed 1-1 performances exploring the effects of

water in daily life and memory, and soon, a reinstallation of the office at the Phoebe Hearst Museum of Anthropology as a way to incorporate community-curated objects from Abiquiú's acequia culture into an about the social aspects of water (see Figure 7.2 and 7.3). While clearly independent of the goals of the BACA Project, this art work more-than-represents the knowledge produced through the research, and continues a process of exploring the emergences that are critical to research-creation, and to truly dynamic, proactive, engaged research at large.

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A major question of decolonizing an institution, be it a university, museum or a political system is whether or not it should simply be destroyed; whether the "master's tools can dismantle the master's house"(Lorde 1981). The projects in this dissertation are my attempts to use the master's tools plus something more. That being said, I don't claim that they have destroyed the house. I recently revisited David Graeber's *Fragments of an Anarchist Anthropology* and was reminded that a strategy of anti-state movements like the Zapatista in Chiapas, Mexico let the state be the state and quietly (or not so quietly) replaced its functions elsewhere by more self-deterministic means. This tactic, if copied by anthropology, threatens the very academic institutions that have supported my research. While I am ever-more reminded of the endless effort to reform an institution such as academic research in order to serve goals it was never designed to serve: I am encouraged by the possibility that it might yet bend. The imperfections of the process has taught me much about how ideals are actually enacted in the world. This is the truth of praxis I suppose. Ultimately, the experience of working with people at the Albany Bulb and Abiquiú has made me more optimistic about the prospect of engaged research, rather than less. This is a credit to them more than anything.

Figure 7.2 Santa Fe Arts Institute Residency supported youth workshops at el Pueblo de Abiquiú Library and Cultural center, and creative collaborations with other artists (image credit: the author)

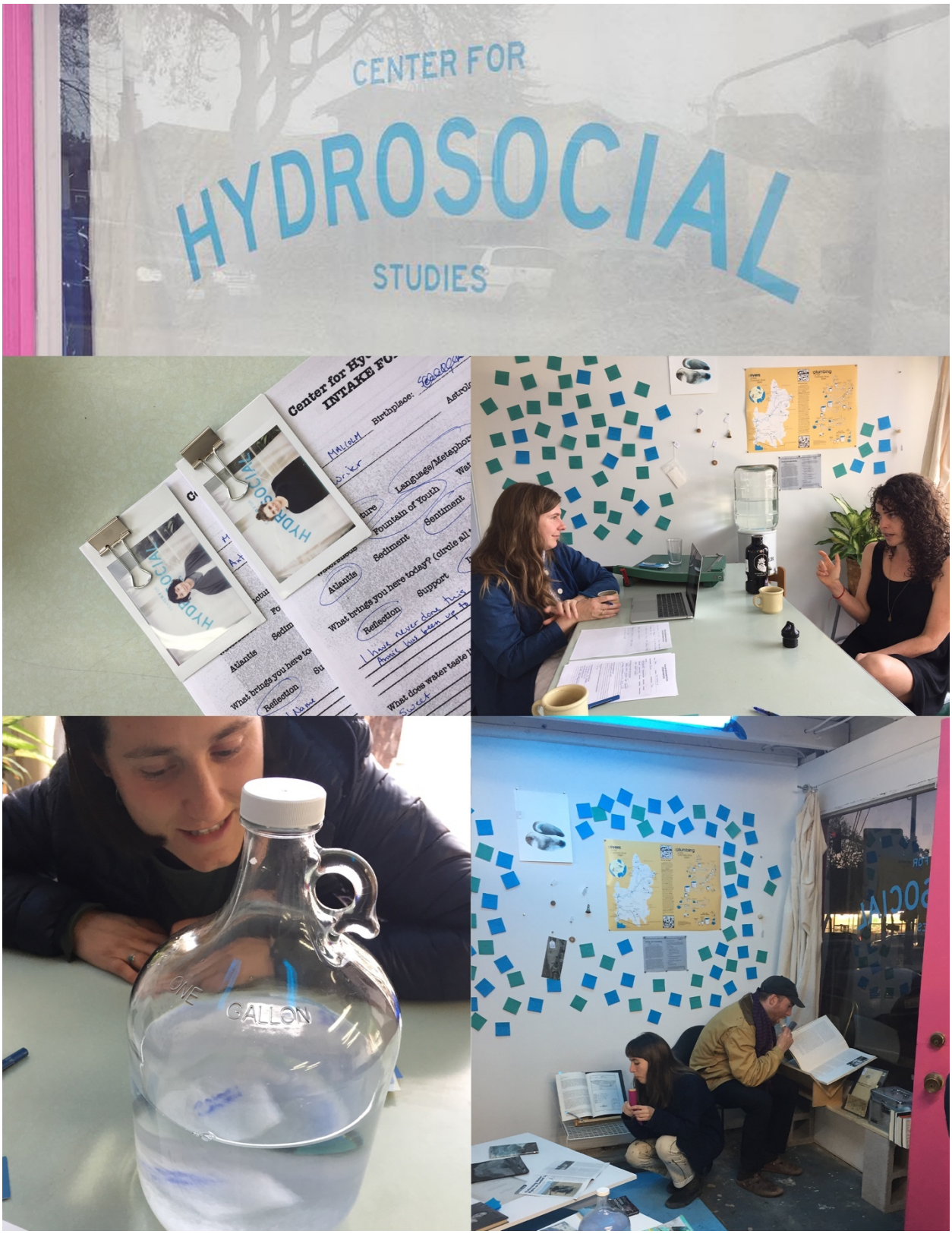

Figure 7.3 The Center for Hydrosocial Studies grew out of creative work at el Pueblo de Abiquiú shown here as an installation at IF/THEN in Albany, CA (image credit: the author).

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