Mapping a Future: Archaeology, Feminism, and Scientific Practice

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Abstract Drawing on work in science studies, I argue for the importance of field-work and research practices when considering the relative significance of feminism within archaeology. Fieldwork, often presented as the unifying hallmark of all of anthropology, has a different resonance in archaeology at the level of material practice and specific techniques. In order to understand the relationship between archaeology and feminism we need to investigate methods, methodology, and interpretations of the material record simultaneously. Examining one practice, that of map making, I suggest venues amenable to feminist insights.

Keywords Archaeological practice · Fieldwork · Feminism · Mapping

Introduction

When considering the historical trajectories of cultural anthropology and archaeology, and commenting on the common path of the study of human experience in its totality, most authors focus on the subject matter that anthropologists and archaeologists address. The theme of a human journey across time and space classically connects traditional 'four field' approaches. By contrast, such discussions rarely examine the actual practices of the discipline in relation to different ends, or consider the possible significance of diverse methodologies and varying definitions of field and fieldwork between them. I suggest that fieldwork, often presented as the unifying hallmark of all of anthropology, actually has a very different resonance in ethnography and in archaeology, particularly at the level of materiality of practice and significance of techniques. Our attention needs to turn to the diversity in methods, practices, experiences of 'the field' to appreciate the very different paths that cultural anthropology and archaeology have taken, particularly since the Second

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World War. In exploring the differences in the practice of fieldwork, we may uncover some of the reasons why archaeology has addressed issues of gender in a specific way, and eluded feminist influences far more and for much longer than cultural anthropology.

As a first step I will separate the question of gender as a research subject from gendered practice inspired explicitly by feminist concerns, suggesting that in order for gender topics to have an impact on archaeology as a whole, they must encompass more than adding women to the list of research interests. While research object and methodology may be intimately connected in epistemological terms, I wish to emphasize the degree to which in archaeology, along with other sciences, interest in gender as a subject has not simply translated into feminist inspired methodology. It is my intention to move the discussion of gender in archaeology beyond a concern for women in the past and, through a comparison with cultural anthropology, explore its significance at the level of practice, especially practices of fieldwork where archaeology finds self-definition.

In this essay I emphasize two points related to the particularity of archaeology as a scholarly pursuit. The first is that archaeology, similar to many natural sciences, has an unusually strong definitional association with methodological practice. I will focus on one of the most common methods, mapping, so as to show the broader historical and political connections and implications of this practice. Feminist geography offers a particularly creative and useful approach to thinking about maps and mapping that are especially amenable to feminist inspired archaeology. Geography has had long ties with archaeology, yet disciplinary traditions have led us to rely far more on theory and cross-cultural comparisons in cultural anthropology (e.g. Renfrew 1981). Therefore I wish to draw attention to feminist geography, as a field with methodological and theoretical insights particularly useful for archaeologists. The position of feminist geography, within the broader field of human geography, is similar to that of feminist anthropology within the broader discipline of anthropology. While it may not be considered mainstream research, feminist geography has gathered significant following, highly respected publications (e.g. McDowell 1999; Moss 2002; Seager and Nelson 2004; Valentine 2004) and a scholarly journal (Gender, Place and Culture: A Journal of Feminist Geography).

My second point is that, while archaeology shares both a disciplinary heritage and a general methodological reliance on fieldwork with cultural anthropology, it can also be distinguished from cultural anthropology most precisely in terms of specificities of its field practices and the centrality of those practices in the generation of acceptable research. Thus a sustained comparison with the ethnographic tradition of cultural anthropology promises to clarify the significance of practice in the positioning of gender research within archaeology, for what works in one tradition may not simply translate into the other.

The question before us, then, is the potential inclusion not just of feminist thought, but of feminist practice into archaeology. Focusing on practices – routine, learned and embodied ways of enacting knowledge – and combining practice theory with feminist insights allows us on the one hand to understand and analyze the discipline as it is lived, and on the other hand to find spaces and places amenable to intervention, slippage, and insertion of marginalized voices. Looking at archaeology through a historical lens, and in comparison with its close disciplinary cousin



cultural anthropology, I return to the question of why gender issues only emerged in archaeology in the 1980's, along with the question of why archaeology has focused on gender rather than feminism. Archaeology as a domain located between the natural and social sciences, using methods and insights gained from both, can serve as a useful springboard for examination of practices in other natural sciences, where feminist and gender insights have made only limited inroads. My aim in this essay is to contribute to the general debate about the impact of feminism on science, in an effort to motivate change of scientific practices, and a greater awareness of the gendered nature of knowledge that all practices produce.

Gender Archaeology and Science as Practice

A focus on gender in archaeology, while undoubtedly enriching the discipline, has remained confined to a relatively narrow subject matter. Over the last two decades gender archaeology has drawn attention to the absence of women in our accounts of the past and to the androcentric bias of most archaeological narratives. Yet the daily activities of training and research have changed little for most practitioners of archaeology in general, and for most gender is an afterthought at best. To claim any sort of a more feminist science, archaeologists have to broaden their scope of inquiry beyond topical concerns and pay much closer attention to research practices, connecting gender not only to theory (itself a form of practice) but also to everyday forms of activity within the discipline. Our training of students, methods of fieldwork, structures of research, approaches to data, styles of presentation, and interpretations all need an equal consideration. As Conkey and Gero stress: "the implications of the feminist critique, taken seriously, point ineluctably to a recognition of the bias inherent in how archaeology is practiced, and to a dedicated effort to develop a more feminist-friendly archaeology" (Conkey and Gero 1997, p. 429). Concurring with Wylie – "a thoroughly reflexive, symmetrical, and empirically grounded program of science studies must take seriously the gendered dimensions of scientific practice" (2000, p. 247) – I wish to argue that to go beyond arguments about scientific method and its potential biases on a theoretical level, we need to develop more detailed analysis of the methods and forms of knowledge that particular archaeologies have produced.

Work over the last two decades in the history and social studies of science has focused not just on scientific work as a form of representation but also as a practice, in the form of an assemblage of skills, tinkering, and intervention by scientists and their equipment, all of which have to be learned and performed, sometimes perfected, and often improvised (Biagoli 1999; Latour 2005; Pickering 1992; Reed and Traweek 2000; van Reybrouck 2002; Rudwick 1982; Traweek 1988). Rather than treating "science" as a unified whole defined by epistemological approach, this work follows the particular actions that different research traditions undertake in efforts to establish and support claims to truth through a body of accepted evidence. Facts can only be replicated when scientists follow the same procedures and make the same interventions as those who constructed the facts initially; their acceptance depends on convincing others that they have been properly derived. Therefore replication and predictability are products of practices, not simply representation, let



alone cognition. It is this space between standard methods and local facts that allows us to talk about practices being routinized and universal, yet local and changing. Archaeology presents an interesting problem in this respect by building its data around assemblages of artifacts: the partial and unique remains of particular pasts. Replication and predictability thus apply only to a limited degree on the level of practices and not at all on the level of the recovered facts. Archaeology can be used then as an interesting case to argue for the importance of attending to practices relative to knowledge. From this perspective, the existence of multiple archaeologies as an example of the disunity of science could represent a welcome development rather than a threat (Gallison and Stump 1996; Hutson 2001; Wylie 2000).

Gender archaeology provides a rich case for a discussion of the relationship between scientific practices, evidence, and the social contexts in which it operates. As Donna Haraway argues in a discussion of the relationship between gender and science, neither gender nor science preexist practice; rather "gender (or race) is an asymmetrical, power-saturated, symbolic, material, and social relationship that is constituted and sustained – or not – in heterogeneous naturalcultural practice..." (Haraway 1997, p. 407). Positioned directly between natural and social science, material culture and humanistic concerns, archaeology is an ideal ground upon which to reflect about the production and interaction of cultural and natural categories, as they play out between past and present and between theory and method. To highlight archaeology's investment in materiality at the level of practice, and illustrate its significance in terms of the relatively limited influence of feminism on the discipline, I turn to a comparison with ethnography.

Histories of Feminist Ethnography and Gender Archaeology

Cultural anthropology has often served as a source of analogy and path of theoretical importation for archaeology, positioning the latter in a secondary role. I wish to suggest productive models of feminist inspired methodologies from other sciences, and thereby recast the debate over 'paradigm lag' in archaeology when compared with ethnology (see Gumerman and Phillips 1978 or Leone 1972). While archaeology shares a common history with other subfields of anthropology, as well as the general subject matter, it may also be productive to examine similarities between archaeology and other field sciences that are methodologically different from cultural anthropology. Thus the key relation between feminist anthropology and gender archaeology may be one of contrast rather than of dependent similarity, and this contrast may prove to be a productive venue for suggesting different possibilities for feminism in archaeology.

While early twentieth century authors such as Parsons (1913) or Landes (1947) deserve greater recognition for their attention to gender, an explicit concern for women's lives and experiences appeared in cultural anthropology on a larger scale only in the 1970s with the publication of Rosaldo and Lamphere's edited volume *Woman*, *Culture and Society* (Rosaldo and Lamphere 1974) and a year later Rayna Reiter's *Toward an Anthropology of Women* (Reiter 1975). By the late 1980s, a category of "feminist ethnographies" emerged as a potential genre, partly as a development from second wave feminism, following reflections on women and



gender during the previous decades, but also as a reaction to prominent efforts to explore "writing culture" in cultural anthropology that ignored women's voices (Behar and Gordon 1995; Clifford and Marcus 1986; Lutz 1990; Visweswaran 1988). While discussions about the meaning and impact of the incorporation of feminism into ethnography appeared (Abu-Lughod 1990; Stacey 1988; Wheatley 1994), feminist ethnography became a recognized genre. It is a methodological claim that currently not only appears in anthropology but resonates through other social sciences and cultural studies (e.g. Blunt and Rose 1994; Devault 1996; Enslin 1994; Moss 2002, 2005; Reinharz 1992; Rose 1993, 2001). Categories of gender, sex, sex difference, and sexuality were destabilized in numerous accounts, making an explicit link between power, social structures of inequality, and differential constitutions of identities in diverse historical and cultural contexts, thereby complicating discussions both of these topics and of categories in general. This has displaced gender as a fixed structuring category of all social action, and allowed feminist ethnographies to examine the differential constitutions of masculinity and femininity, more often than not in an asymmetrical fashion, foregrounding the question of social inequality with an examination of the lives of women, men and children (Visweswaran 1997). Rather than simply representing another topic for inquiry, feminist ethnography suggests that the recognition of gender and sexuality can alter forms of research and writing. As Gordon writes: "Feminist ethnographic efforts to alter textual voice, representation, and style in their widest and most radical senses move the profession in a way that makes daily work of anthropology accountable to feminism." (Behar and Gordon 1995, p. 386). The history of gender research in archaeology, on the other hand, took a very different path.

In 1954 the National Science Foundation inaugurated its Anthropology and Related Social Sciences program, resulting in an increased stress on the scientific nature of methods and the incorporation of scientific equipment into archaeological research (Yellen and Greene 1985). Although cultural anthropology has also experienced periods of scientific emphasis, the methods of archaeology have generally been more amenable to formalization than those of ethnography, and the financial resources that became available not only strengthened this tradition but also permitted new techniques to emerge that involved an expanded array of equipment, and the overwhelming majority of grants (81% of funding for the first three decades) went to field projects (Yellen and Greene 1985, p. 334). On the whole, ethnographers have remained less invested in material evidence, and only intermittently reflective about the methods used in fieldwork itself (see Malinowski 1922, in a very different vein Rabinow 1977, and Gupta and Ferguson 1997). While manuals certainly exist, much theoretical debate has concentrated on issues of writing, representation, and positionality (e.g. Behar and Gordon 1995; Clifford and Marcus 1986; Ebron 2002; Fischer 1999; Jacobs-Huey 2002; Marcus and Cushman 1982; Maurer 2005). By contrast, an archaeologist can only become a professional through a proper fieldwork training that involves techniques, methods of survey, mapping, sampling, recording, processing and analyzing data. Specialized expertise at the level of technique is often a component of advertisements for academic positions (e.g. archeozoology, paleobotany or lithic analysis), and proper archaeological fieldwork and analysis are assumed not only to concentrate on physical objects, but also to incorporate a significant amount of space and specialized Springer

equipment. Consequently, a discussion of what constitutes the field, or what its status might be, has taken place on very different levels in these two sub-disciplinary traditions. That is not to say that archaeology is method driven (and cultural anthropology is not), or that it is defined solely by its methods, but rather that the practices of the two subdisciplines are distinctly different not only because of the particular topics and time frames they incorporate, but also because of the means they use to pursue their research. Archaeology is far more dependent on tools, technology and teamwork than ethnography ever has been, creating distinct settings in which leadership in teamwork and competence are of the utmost priority, judged by very specific standards, and, one could argue, highly gendered. In this respect archaeological research far more closely resembles traditions of natural science in practice. This difference at the level of research practice has serious consequences for not only the inclusion of women in the discipline in general but also for the inclusion of feminist thought.

Archaeology Amid Scientific Practices

A discussion of whether archaeology is merely a method or a full-fledged discipline is not new, as Taylor's oft cited work (Taylor 1948) shows. Thus in considering the particular status of archaeology as a form of science, I will return to Taylor's suggestion that practices of archaeology are to a large degree constitutive of the field: "archaeology consists of a method and a set of specialized techniques for the gathering or 'production' of cultural information" (Taylor 1948, p. 44). Rather than pursuing debates on the disciplinary standing of archaeology, I will push this observation in a direction that was most likely not in its author's mind, suggesting that in order to understand the relationship between gender, archaeology, and feminism we need to investigate methods, methodology, and interpretations of the material records simultaneously. Judging from the popular understanding that archaeologists "dig" as a full-time occupation (while it is less clear what do cultural anthropologists "do"), methods of data collection are far more prominent in defining archaeology than in many other related disciplines, particularly in the social sciences. Therefore an argument about archaeological practices, the methods of data collection, seems to be the best way to proceed to move feminist analyses along the way. Archaeological labor, tools, spaces and ways of doing all constitute what we understand as archaeology; thus a detailed analysis of these aspects of the trade is certainly warranted so as to move past the contentious epistemological argument over whether scientific facts are created or found (Chippindale 2000).

Fieldwork has begun receiving attention from archaeologists in Britain (Bender *et al.* 1997; Berggren and Hodder 2003; Chadwick 2003; Hodder 1997; Lucas 2001; Moser 1996), but awaits serious theoretical discussion in North America (for exception see Shanks and McGuire 1996; Spector 1993; Joyce 2002). Focusing on practices of archaeology allows us to recognize the real labor that goes into research, work that is determined by the theoretical underpinnings, research questions that are rooted in epistemological issues, but cannot be ignored. Moreover, the advantage of examining the actual practice of any science is that it allows us to view it as a situated activity involving not just a disembodied research method, but also the



material settings in which it takes place, reconnecting it to a material world through places, tools, and bodies. The materiality of places, scientific tools, and the bodies of the scientists themselves gives us a grounded entry to the world in which the scientific activity occurs, and allows us to circumvent the split between nature-culture, and by extension objective description-subjective interpretation. An additional reason why I wish to address practices in archaeology is that most of the discussion of gender in archaeology, and in feminist critiques of science in general, has focused on epistemology (e.g. Demeritt 1996; Keller 1985, 1992; Longino 1990, 2001; Wylie 1996, 2000). Literature addressing methods and methodology as a site where gender is constructed and reinforced remains sparse, particularly in archaeology (but see Bender et al. 1997; Conkey 2003; Gero 1985, 1994, 1996; Gifford-Gonzalez 1993; Hendon 2000; Joyce 2002; Moser 1996; Spector 1993). Yet it is precisely here that embodied knowledge is not only produced but more importantly reproduced, modified, or rejected, and therefore deserves far more attention in terms of the subject position of the researcher, her training, choice of methods and skills. As Grosz reminds us: "...the conventional assumption that the researcher is a disembodied, rational, sexually indifferent subject—a mind unlocated in space, time or constitutive interrelationships with others is a status normally attributed only to angels" (McDowell 1992, p. 405). The primatologist Shirley Strum, following Latour's call for 'science-in-the-making' rather than 'science-ready-made', argues convincingly for the importance of knowing the rich, detailed, complex scientific practices as a way to a more 'realistic' science:

...the switch to science-in-the-making requires a number of shifts in approach... From norms to practice, from global to situated, and from isolated to embedded science. Implementing the alternative view requires both a change in perspective and in methods. For example, instead of starting at the top, with broad generalizations about global categories like theory, method, gender, culture, the process should start at the bottom, utilizing case studies of scientific practice located in their proper context. (Strum and Fedigan 2003, p. 484)

Science, as a social activity of a particular group, is influenced by the values of this group, its position in the social structure, and historical circumstances (e.g. Kitcher 2001; Longino 1990, 2001). That implies a methodology dependent on and influenced by the circumstances of the groups that developed it (in the context of archaeology see e.g. Abu El-Haj 2001; Thomas 2004; Tomášková 2003). It also suggests that feminist methodologies may not become a standard or more commonly used procedure unless the structural conditions of research change. Many researchers are particularly uneasy about adopting a feminist framework, believing it to undermine scientific standards or objectivity in the pursuit of political goals. For example Erica Hill claims that:

A 'feminist theory' that will supposedly provide new methodologies has proved to be unnecessary to the study of gender archaeologically. In fact, attempts to work beyond existing theoretical structures, within a feminist sphere, have resulted in an unfortunate politicization of archaeological research (e.g., Gimbutas 1982, 1989, 1991) or in the use of flawed analogies. (1998: 103)

suggests a pervasive belief that science, and methods in particular, are politically neutral, and that any explicit standpoint will result in unscientific propaganda lacking standards and any possibility of testing, verification or proofs: "the distinction between political commitments and archaeological research ought to be maintained" (Hill 1998: 115).

Standards are necessary to provide a basis for evaluating claims and their comparability across any community of knowledge producers, yet they can also be used to foreclose dissent or alternative perspectives. I suggest that we pay greater attention to the actual processes that establish authoritative knowledge, taking evaluation as an opening rather than a closure into a single established regime of conduct. Thus it is the particular practices of training, fieldwork, data collection and analysis that are of interest to us, as I wish to argue that they are strongly gendered, distinct within each scientific domain, and not abstractly neutral. Methods and practices of archaeology define the field not only in the popular imagination, but in our lived experiences as scientists, when the technical details of our work contribute to a large degree to what we can and cannot accomplish in a season's work or in the field or laboratory in general. It is therefore important to state the basic premises of cultural studies of science that focus on practices, and insist that all scientific practices are local, material, and discursive in nature, and that the traffic between science and society is always two-way (Maasen and Winterhagen 2001, p. 27).

The "Field" in Fieldwork as a Practice

In considering some of the basic methodological concerns that every archaeologist has to deal with, I will evoke several themes that feminists have brought up in an attempt to change science and scientific practices. While the use of language and metaphors in science has been convincingly shown to be gendered and exclusionary (Keller 1992; Joyce 2002), here I focus on issues of methodological practice that are harder to address, and yet, as several critics have argued, all the more crucial for any attempt to effect change. Sociologists (e.g. Devault 1996; Naples 2003; Reinharz 1992) and geographers (e.g. Blunt and Rose 1994; McDowell and Sharp 1997; Moss 2002, 2005; Rose 1993) have addressed issues of feminist methods in the greatest detail, generally agreeing that, while there may be no one particular 'method' to which all feminists could subscribe, there are nonetheless several principles to which most researchers who aspire to conduct feminist or feminist inspired research adhere (see e.g. Harding 1986; Longino 1994, 2001; Wylie 1995, 2001). These principles include attention to reflexivity, subject position, and the political implications of the research (particularly implications that address gender inequality), extending from the initial framing of research questions through later interpretations of research results (Kirsch 1999; Kwan 2002a, b; Reinharz 1992). While not particularly radical at the level of discursive claims, the explicit inclusion of such principles into methodological approach can lead to innovative research practices (see e.g. studies in McDowell and Sharp 1997, or Moss 2002). Therefore, I will take these principles seriously in the following discussion of archaeological methodology, in order to clarify potential opportunities and difficulties facing the practice of an archaeology inspired by feminism.



The central methodological issue confronting all field sciences is the difficult task of defining fieldwork in the first place, and positioning that conceptual definition amid the attraction, fear, and promise of real practice. As Gupta and Ferguson note with regard to ethnography:

Anyone who has done fieldwork, or studied the phenomenon, knows that one does not just wander onto a 'field site' to engage in a deep and meaningful relationship with 'the natives'. 'The field' is a clearing whose deceptive transparency obscures the complex processes that go into constructing it. (1997, p. 5)

They go on to point out how mobile, unstable and changing "the field" is for cultural anthropology, since not only do "the natives" not remain stationary, but cultures and groups also respond to a changing world, tempting the anthropologist to capture and cling to a fleeting moment even as the certainty of its significance slips away. Archaeologists may breathe a sigh of relief on this score, since at least the buried, deposited remains that define the site of "fieldwork" tend to stay put, often thought of as a past frozen in time and waiting to be found. Yet at second glance things may not be quite as secure as they initially appear. The "clearing" that Gupta and Ferguson (1997, p. 5) identify as the "setting for the discovery of difference," is an agrarian metaphor that invites us to consider more closely the question of research location. Prior to excavation or survey, how do archaeologists choose the place of fieldwork?

Just as in cultural anthropology, fieldwork in archaeology is a historical construct. Following the tradition of nineteenth century natural sciences, travel and the description of one's experiences constituted the suitable means of acquiring knowledge for propertied gentlemen (Kuklick 1997). Yet as Lucas (2001) points out, the "fathers" of archaeology did not routinely engage in excavations themselves but rather had artifacts and materials brought to them for study in the comfort of their homes and museums. It is only in the twentieth century that excavation came to function as the defining standard of field practice, and not until the mid-twentieth century that methods become somewhat standardized and comparable (Lucas 2001). Thus excavation may be the focal point of recent archaeological fieldwork, but it is not the historical root of it in any simple sense, complicating the story with class definitions of appropriate labor.

The colonial expansion of European empires provided the easiest medium of access to strange places, peoples, and materials that could be brought back and studied. It is in this context that the culture and institutions of modern field sciences emerged, and through this connection were shaped by imperial power, whether in the form of British and French exploration of Africa and Asia, German attempts to appropriate regions of Africa or South America, or Russian forays into Asia. Thus patterns of travel and fieldwork have always been, and in this respect remain to this day, invested in a political segmentation of the world into areas, cultures, civilizations, and points of origin. Both travel and fieldwork are dependent on history, and implicated in geopolitics of race and gender relations in both the countries of the scientist's origin and the countries of research interest. As Kuklick and Kohler (1996, p. 4) note, "unlike laboratories, natural sites can never be exclusively scientific domains. They are public spaces and their borders cannot be



rigorously guarded." These authors are referring to the distinction between a scientist and an amateur traveling tourist who might intersect at various times in the field. However, the same point can also be made with regard to the uncertain boundaries between science and politics in the delineation of the field. While the colonial heritage of the field sciences is hardly a revelation, the implications of such a history for present modes of scientific practice are far less clear. Yet even a glance at the geographic distribution of archaeological research reveals patterns that highlight historic *and* modern geopolitical interests.

Archaeological fieldwork is both literally grounded in the locality where it takes place, and intimately embedded within larger social and political landscapes. This becomes evident when considering the question of how we choose places where to locate research in the first place. After all, the first question that archaeologists frequently encounter is "where do you dig?" Even in a professional context, any answer reveals a long and complex chain of causality. Starting from a region of the world, continuing to countries and regions within it, and moving on to the most specific choice of sites in the local landscape, all these decisions are not simply a product of what appears to be present under the ground, but are also governed by issues of access shaped through networks of disciplinary history involving local and international relations, permits and languages, as well as the very particular factors of individual life histories. Site location in archaeology is a very specific activity, discussed in method sections of reports, manuals and in some detail in discussions of site distributions on a landscape. Yet this seemingly obvious subject is fraught with geopolitical and personal history, and shaped through embodied experience as much as abstract knowledge.

The choice of location for fieldwork, together with the financial support provided for it, draw a map of the world that suggests that scientific curiosity is not the main driving force. As Yellen and Greene (1985) show in their analysis of NSF funding of archaeology in the first three decades, 64% of funding for "senior grants" supported research in the Americas (North, Central and South America). This trend has remained fairly steady since; in the 2000-2002 period the rate for senior grants remained above 55%. Even more significantly, dissertation research in the Americas during this time accounted for 76% of all such awards (Yellen 2004). Financial support for Europe and Africa went from 11% each in the first three decades to 13% and 14% respectively (Yellen and Greene 1985). This modest increase hardly offsets the clear preference for Americanist research, and reflects weak involvement in African archaeology by Americans, particularly considering the size of the continent. If dissertation research is an indicator of the developments in academic archaeology, then the decline in dissertation support in Europe and Africa – to 7 and 8% respectively in the 2000–2002 period (Yellen 2004) – suggests a geographical future of the academic discipline clearly centered in the Americas. The emergence of cultural resource management as the leading form of employment for archaeologists in North America would only reinforce this trend, given that projects are driven by state and industrial need rather than theoretical or antiquarian interests, and defined largely through national legal contexts. None of this comes as a surprise if we consider the global division of research and its historical connection to colonial empires. Thus for example, the British still dominate research in Africa and many parts of Asia, while the Americans concentrate efforts and money in the Americas. In Gosden's words: "All archaeology today is postcolonial" (Gosden 2001: 241).



Feminist calls for reflexivity in fieldwork and for attention to political implications of research should not be interpreted in a narrow sense as having to do with gender inequalities alone. On the contrary, as numerous scholars have shown, the most productive way to view politics is to consider it as negotiation of power in everyday social relations, which on distinct levels influences personal, group, or national interests (e.g. Haraway 1989; Harding 1991; Katz 1995; Young 1990). From a feminist perspective, then, it is imperative that the methodology of archaeological research include a discussion of the geopolitics of research location, since this has several crucial implications.

On the interpretive level it affects the models for prehistory that we suggest, given that the patterns of prehistoric interaction, movement, exchange or conflict may reflect realities of research support and continuity of interest interwoven with realities of the lived past. On the level of practice, the choice of research locations includes day-to-day human interactions, which are imbued with gender, class and race politics located in present day cultures. Historians of science and colonial historians have addressed the masculinity of travel in field sciences, as well as colonial enterprises, noting restrictions on women's movement in other cultures, public spaces, as well as 'natural sites' (Cooper and Stoler 1989; Kuklick 1991, 1997; Kuklick and Kohler 1996; Rudwick 1982). The complex nature of fieldwork interactions with local populations, whether or not they participate in the project as assistants, or directly benefit financially from the support system that every field project needs, involves gender dynamics that are situational and not always predictable, while at the same time reflecting larger political forces that suffuse our bodies and bodily practices.

Historically the composition of research teams was directly influenced by gender roles of the period and women participated in research as wives of archaeologists or in teams with other women, as Picazo describes in her analysis of women's teams excavating in Crete in the early twentieth century (Díaz-Andreu and Stig Sørenson 1998), or Sørensen in a discussion of British all-women teams after the First World War (Díaz-Andreu and Stig Sørenson 1998). This single sex research allowed for female companionship, mutual support on scientific level when applying for grants and dividing labor, but also on a personal level, as it created networks of unmarried professional women, as well as space for intimacy that remains to be explored in the history of science and archaeology (Díaz-Andreu and Stig Sørenson 1998, p. 51, see also Ruiz 2002). Yet as Sørensen points out, it is not that men were absent from these excavation teams, but rather that the those present were lower class African or Near Eastern men hired as helpers, and thereby rendered asexual and non-threatening to the extent that they could be erased entirely from the image of "all female" teams (Díaz-Andreu and Stig Sørenson 1998, p. 51).

Women in positions of leadership on research teams, with powers of decision-making and financial impact, were placed in a liminal space of mixed gender where they acquired masculine characteristics through the role they occupied. This reveals the complex nature of gender in fieldwork as it points at the relation of sexual identity to power, since the gender of a woman archaeologist, like that of any woman in a position of public leadership, is subject to social negotiation. Reading such exceptional historical cases backwards exposes assumptions built into site selection at a personal and geopolitical level, and underscores the significance of both race



and gender within archaeological practice. As Wolf suggests, "feminist dilemmas in fieldwork are as much ethical and personal as academic and political...and revolve around power, often displaying contradictory, difficult, and irreconcilable positions for the researcher" (Wolf 1996, p. 1). Although Wolf addresses dilemmas of ethnographic research, particularly in developing countries, and there are crucial methodological differences between the subfields in anthropology, as mentioned earlier, some of the issues raised in discussion of fieldwork are not only pertinent to archaeology but are exacerbated by the team nature of archaeological fieldwork. As the example above indicates, women's teams in British archaeology have been ignored in the history of the discipline on multiple levels, both as teams of women working together on a scientific project and as western women in a colonial setting where their national origin and race trumped their gender identity. A simple binary opposition of men and women, or experts and technicians, does not capture the complexity of fieldwork practices that take place in a wider social context. Furthermore, archaeology, unlike ethnography, has often involved physical, manual labor of a variety often seen inappropriate for middle and upper class women. Thus while some aspects of the geopolitics of ethnographic work resonate in archaeology, methods and practices of archaeology also operate in different fields of power, and require different negotiations, such as the employment of a labor team for excavation and processing of materials. The daily practices of archaeologists might be more productively analyzed with an eye towards this difference rather than through a simple search for resonances and similarities with ethnographic fieldwork.

The placing of a site on a geopolitical map of the world is a practice on a scale that can be contrasted to a much smaller scale of fieldwork, the actual mapping of a site. This mapping is no less imbued with politics and subjectivity than locating a site in a country or region of the world. In the remainder of this paper I discuss in more detail the mapping of sites as a practice that is common—every field project begins with maps, yet undertheorized in terms of the impact such rudimentary activity has on an entire project from beginning to its interpretive conclusions. Drawing on the insightful literature particularly on the archaeologies of landscape (e.g. Ashmore 2004; Bender 1999; Smith 1999), I expand this conversation to include geographers, historians, and writers who address alternative mapping practices, including indigenous cartographies.

Maps, Representations, and Alternative Practices

A map is one of the basic and most rudimentary tools for all archaeologists, and mapping is an inevitable field practice in any archaeological project. Geographical imagination works in archaeology in many different ways, at times combining landscapes with cultural entities to outline archaeological cultures, such as the Mississippian, or the Périgordien, at other times drawing together natural resources in a logic of economic value to describe patterns of optimal past human locations and settlements. The work of numerous historians and geographers reminds us of the significant point that maps are representations, highlighting their textual and iconic character and noting the history of their creation to achieve specific ends, particularly in colonial and military enterprises (e.g. Godlewska 1995; Godlewska



and Smith 1994; Gregory 1994; Haraway 1997; Lewis and Wigen 1997; Mundy 1996). In addition to representing particular geographic features or spatial alignments, maps also translate and order elements of immediate, personal and visible experience into a universal and transcendent image. Thus when reading or making a map it is important to consider the author, the intended audience and purpose of the map, as well as the act of translation itself, since a map is never an unmediated reflection of nature. As Philip Kitcher, the philosopher of science, notes:

Think of a map as a visual display coupled to a set of conventions. The set of conventions divides into two parts, the intended content and the reading conventions. The intended content of the map consists of the region and the types of entities and properties that the map intends to portray. The reading conventions link items in the visual display to those entities and also specify which features of the display do not correspond to any aspect of nature. (2001: p. 57)

Kitcher's main focus is accuracy in mapping, which he sees as parallel to the problem of accuracy in science. A committed realist, he urges us to recognize that human interests change and consequently maps are drawn with very different reading conventions.

The map remains a pragmatic and widespread tool that serves specific practical needs, appealing in its seeming accuracy, simplicity, and familiarity. It is in this context that map making in archaeology is particularly interesting for our discussion, since it invokes practical, commonsensical, and material sensibilities, learned almost as early as reading or writing and seemingly devoid of any interpretive choices and slippage. By distinguishing maps, finished products exhibiting an aura of neutrality existing in "the space of clarity and uncontaminated referentiality" (Haraway 1997, p. 136), from map making, a messier practice common to archaeological fieldwork, we can highlight the situated nature of experience in the latter. Map making appears to be a metaphor-free technology that allows accurate orientation in space by plotting existing properties of the world. However, maps can simultaneously serve multiple purposes that are not exclusive, but are rather the "embodiments of historical practices among specific humans and nonhumans" (Haraway 1997, p. 135). Writing about different ways of seeing a landscape and marking significant landmarks onto a map, Antoine de Saint-Exupèry, the French pilot and the author of the children's book The Little Prince, reverses the logic of abstraction most common in map-making:

Little by little, under the lamp, the Spain of my map became a sort of fairyland. The crosses I marked to indicate safety zones and traps were so many buoys and beacons. I charted the farmer, the thirty sheep, the brook. And exactly where she stood, I set a buoy to mark the shepherdess forgotten by geographers. (Saint-Exupèry in Bunkse 1990, p. 97)

By filling the map with that which is usually left out, Saint-Exupèry reveals practices of omission and selection common to cartography, whereby both the subject and the personal detail of experience fall away. Once the select details are recorded they acquire a sense of permanency, as if space and the experience of space were timeless. As Craib (2000, p. 10) notes in a discussion of Latin American cartography "although history is understood as dynamic, contested, and dialectical, P Springer

space continues to be treated as dead, the fixed, the undialectical, the immobile." The seemingly unchanging nature of space then allows for an unquestioned replication of mapping conventions and the place is viewed as changing only in a temporal sense, the ultimate purview of archaeologists. When Latour (1993, p. 37) writes of regions, continents, longitudes, latitudes, maps and spaces, networks and topologies, he argues for a production of 'quasi-objects' through practices of mediation, translation and networking between 'nature' and 'culture' that takes place in a space that he calls the 'unconscious of the moderns'. The practice of mapping involves a technical mediation between nature and culture in which both are changing forms: many shepherdesses, sheep and brooks have been forgotten, and only selected few remain.

To recognize the translations and mediation embedded in context, or the position of a subject within any given process of representation, is by no means to call for an abandonment of mapping as a part of archaeological surveys. Nor is it to advocate entirely subjective renditions of the landscape settings. Rather, it calls for more explicit acknowledgment of the historical situatedness of our current mapping practices, alongside a continuing consideration of alternative approaches and engagement with multiple forms of representation that reflect on each other. Mapping in archaeology not only translates an experience of a space and alignment of features and material remains into a universal language of scientific fact; it also creates a model for past inhabitation of that same place. Recording archaeological sites is an exercise in abstraction, in which the surrounding landscape becomes a resource rather than a changing entity; the site becomes a place of a specific activity, overlaid with a surprisingly static visual form and strikingly cultureless standardized clues and markers.

Bender *et al.* (1997) both suggest that mapping and recording can and should be a far more reflexive practice, and introduce complimentary ways of describing the landscape of Leskernick Hill in Cornwall. Besides providing a standard set of maps of the region, the site at Leskernick Hill, a topographic map of the prehistoric landscape of the area, and maps of site sections, they also include in the caption of the general map of the area their thoughts on their own map making:

I'm worrying about the illustrations. They're beautiful—really good. They are authoritative and probably, people will take the whole project more seriously because, in the end, we've delivered the right sort of information. But they are so finished, so definitive. We haven't managed to show, graphically, any of the hesitations, rubbings out, re-thinking, or even failures to think, that went into their making. We kept talking about how to open up the illustrations, but we haven't done it. Next time, next season, we'll have to work on it...(Bender *et al.* 1997, p. 151)

In addition to this caption, the text includes descriptions of the experience of walking in the area, adding yet another dimension to the maps as a representation of a space and making it into a place. A question may arise as to whether the authors are being completely honest in this reflexive exercise, or whether all the motivations and hesitations are of equal value or would be equally suitable for publication (Skibo, personal communication). Nonetheless, this question itself recognizes the significance of reflection amid highlighting the very ambiguities of its results. No degree of self-reflection, however honest, will lead to certain knowledge. Positionality



and individual subjectivity are necessary components of any research context, but do not themselves constitute the research goals of most archaeology. Rather, reflection leads to a set of partial, changing and revealing connections, and can thus remind us that we might always ask other questions than the ones initially posed. Understanding science in terms of process and practice rather than focusing on product allows for spaces where motivations and hesitations may be addressed. Although it may be debated where it makes for better science, a more open field usually makes for a more interesting enterprise and attracts a greater number of practitioners (Strum and Fedigan 2003).

A number of feminist geographers have also called for re-imagining alternative practices more congenial to feminist epistemologies (e.g. Kwan 2002a, b; Moss 2002, 2005; Rose 1993, 2001). Warning against any simple shift from quantitative methods to solely qualitative ones, however, they advocate creativity in using both kinds of data sets, combining them in innovative ways, and including both methods in the same contexts. Rocheleau (1995) presents a particularly convincing research on forest management in the Dominican Republic in which standard quantitative, qualitative, and creative new methods were combined within an explicitly feminist frame. In addition to regular resource mapping, her team created "counter-maps", representing a variety of gendered and otherwise differentiated perspectives on land, resources, and the possible futures of people and the ecosystems that they both create and inhabit.

These maps consisted of land use and cover, with livestock, trees, crops, and medicinal plants pictured in detail, and were accompanied by commentary on the uses, values and individual control over each plot, species and product. The images placed rural people and their homes at the center, then radiated out to the edges of their lands and included small sketches of their outlying properties on the reverse side...Once made visible, the shape of the multiple and overlapping domains of resource use and management can be named, categorized and mapped as a fact, as an ideal, or as a norm. (Rocheleau 1995, p. 463–4)

Similarly Schuurman and Pratt (2002) and Kwan (2002a, b) argue for a more complex relationship between feminist critique of quantitative based technology and its uses, specifically GIS that also became common and popular in archaeology (Wheatley and Gillings 2002). Kwan (2002a, p. 271) advocates feminist inspired practice and engagement, rather than oppositional critique: "...the oppositional polemics of the debate have unintentionally marginalized the contribution of feminist GIS user/researchers and the potential of feminist perspectives for the development of feminist GIS practices." She emphasizes the potential for going beyond the conventional understanding of GIS as a quantitative practice, thereby disrupting the rigid distinction between quantitative and qualitative methods in geographic research, and opening space for alternative feminist practices that would disrupt the dominant GIS uses and applications. Together with Schuurman (2000), Kwan (2002a, b) identifies women's engagement with GIS as an important feminist strategy for 'writing the cyborg', and warns that failure to do so can adversely impact upon gender equality in geography. This point should not be lost on feminist inspired archeology for it suggests that mapping technologies might be especially amenable to alternative strategies and voices, if taken seriously as a technical practice.



Following in the spirit of a discussion of intersections of feminist and indigenous archaeologies (Conkey 2005), one mapping approach that should be of particular interest to archaeologists is indigenous cartography. These highlight the existence of alternative ways of representing space and place, repositioning our current methods as one of several options rather than the only one (e.g. Colwell-Chanthaphonh and Ferguson 2006; Harley 1992; Lewis 1987; Mundy 1996; Rundstrom 1990). Native American, Mesoamerican, or Inuit maps are often cited as examples of historically existing local traditions that do not conform to "scientific" cartographic rules. However, their different physical form (e.g. cloth or screenfolds) by no means diminishes their applicability to spatial analysis. Harley describes Mixtec maps as "...spatial histories where time and space are projected onto the same two dimensional plane in which records of geographical perceptions, ancestral migration and dynastic history are combined into single documents" (1992, p. 525). Barbara Mundy (1996) writes about pinturas (portraits) that used symbolization and iconographic representation, styles and designs from pre-Hispanic past, presented to Lopez de Velasco upon his request to map the layout of towns in New Spain in the sixteenth century. Icons and names revealed how the place was known to the Nahuatl speakers, native terms marked hills, waterways, buildings with footprints leading away to indicate which way different members of the community went (Mundy 1996). Some maps included alphabetic Spanish markers while others did not, revealing varying responses by different authors to the mapping request, some representing not only the space but also the inhabited and imagined place. These maps, particularly pertinent to archaeology, show different and long traditions of mapping that do not differ in accuracy, but rather in content and reading conventions (Kitcher 2001). Their difference emphatically reveals the contextually bound experience of place alongside particularities of content. As Barbara Bender (1999: 41) notes: "Past and present elide. The topographical detail - dune, hill, lake, shoreline - is the site of memory." Indigenous maps and mapping practices thus expand the existing standard cartographies and offer possibilities for the future that do not reject current standards so much as de-center them. "In the western map, history is recorded. But it is over and done with. ... The alternative maps are equally the reality, technology and metaphor of local resistance. The results are as variable as the people and situations involved." (Bender 1999: 42)

When creating maps archaeologists engage in multiple translations simultaneously, interpreting the immediate spatial experience of the landscape into a stationary set of spatial clues. Layers of experience, history, and disciplinary tradition are lost when the only final result is a standardized map, produced by expected conventions. With them, all too often, goes any recognition of the possibility of gender once its more obvious traces are gone. We all recognize the clues, markings, measurements when looking at a survey map but we do not recognize the place in its specificity, in experiential reality, and the past encounters. Prehistoric landscapes may be lost with time in geological deposits, movements, and changes. But the maps of past landscapes that we create can still recognize the possibility of other experiences of the place amid our technical descriptions. Reconstructing prehistoric landscapes in any literal sense may not be an option at a remove of several thousands of years, but the mapping of modern regions – no matter the accuracy of our technology – should never be confused with representations of past lives in that area, as any comparison



of indigenous and Western maps would show. New movements of counter-cartographies attempt not to trace out representations of the real, but to construct mappings that refigure relations in ways that render alternative worlds (http://www.countercartographies.org), similarly to the feminist and indigenous mapping practices. Including more traces of a map's production and alternative experiences of space provides only more information about field practices, and a wider ground for comparison and evaluation of results. This, I suggest, serves the interests of both people from the past and science.

Conclusion

I have argued in this essay that the recent focus on gender in archaeology, while considerably enriching theoretical debates in the discipline, has nonetheless left archaeological practices largely intact. One of the main differences between archaeology and cultural anthropology lies in the realm of techniques, tools and methods of fieldwork, and it is here that we may find main reasons for the divergent degrees to which feminist insights have been incorporated into the respective disciplinary traditions. The practices of fieldwork in archaeology, drawn mainly from natural sciences, have only recently attracted attention on a theoretical level and have had a limited engagement with feminist and critical science studies.

While focusing mainly on mapping at global and local levels, I hope to provoke a wider discussion about future directions and questions. Drawing on work in science studies and in feminist geography, I underscore the importance of attending to reflexivity, subject position, and the political implications of research. I further suggest that this attention should extend across the entire scope of our enterprise, from the initial framing of research questions, on through engagement in fieldwork and laboratory analysis, to interpretation of data in writing and presentation. My main contention is that we need to take the materiality of our work seriously, and examine the embodiment of our practices with an eye to relations between gender and power. If we consider the internalized understanding of gender neutrality to be untenable at a theoretical level, then we need to meaningfully incorporate that insight into the practice of fieldwork. Achieving this goal might not always be simple or easy, but the potential rewards remain considerable.

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