A Plurality of Pluralisms: Collaborative Practice in Archaeology

Alison Wylie

Innovative modes of collaborative practice are transforming archaeology, in the process generating examples of methodological and conceptual pluralism that are proving to be powerful catalysts for creative insight. What I have in mind are not the interdisciplinary collaborations that have long been a staple of archaeological inquiry but, rather, intellectual as well as pragmatic partnerships with descendant communities, especially Aboriginal and Indigenous communities. While the impetus for these collaborations is often, in the first instance, moral and political – they arise from demands for respect, reciprocity, consultation – increasingly they are also robustly epistemic. Descendant communities and archaeologists jointly define the research agenda and pursue programs of historical, archaeological inquiry together, sometimes bringing strikingly different conceptual schemes and methodologies to bear on questions of common concern.

This growing tradition of collaborative practice has provoked sharply critical Science Wars style rebuttals from skeptics who decry the compromises they believe it entails for properly scientific archaeology. They insist that the kinds of pluralism endorsed by the advocates of these projects cannot but undermine objectivity conceived in terms of the traditional ideal that science, proper, should be value free[1]; they open the door to parochial, sometimes highly politicized interests and to non- or anti-rational values that are anathema to scientific inquiry. High profile reactions of this kind within archaeology include denunciations of repatriation as an assault on reason that threatens to roll back all the accomplishments of the Enlightenment (Clark 1996, 1998),[2] and a challenge to the very idea that an Indigenous culture could sustain an epistemically distinctive standpoint, unless cultural difference is reified and indigeneity is understood in perniciously essentialist terms (McGhee 2008).

Within philosophy, Paul Boghossian begins *Fear of Knowledge* (2006) with discussion of a *New York Times* article on debate about the Native American Grave protections and Repatriation Act (NAGPRA) that characterizes the struggle over access to and ownership of human remains as a conflict between traditional Native American beliefs about tribal origins and the conclusions drawn from scientific investigation of the archaeological record (Johnson 1996).[3] Boghossian is chiefly concerned by the stance taken by two archaeologists cited in this article – Roger Anyon and Larry Zimmerman – who resist this stark opposition and insist that Native Americans have interests and insights that archaeologists should take seriously. The quotes that Boghossian extracts from this article exemplify, on his reading, a self-defeating turn to postmodern relativism that he finds pervasive in the contemporary social sciences and humanities (2006, 1-3): Anyon is quoted as saying that "science is one of many ways of knowing the world… [the Zuni world view] is just as valid as the archaeological viewpoint," and Zimmerman as

---

[1] The history and contemporary formulations of this "value-free ideal" are usefully explicated by Douglas (2009, 44-66) and by Lacey (2005, 23-27, 59-80), and assessed by contributors to Kincaid, Dupré and Wylie (2007), and Machamer and Wolters (2004).

[2] In these articles, the first entitled "NAGPRA and the Demon Haunted World," Clark was particularly concerned with impact of the Native American Grave Protection and Repatriation Act (NAGPRA), signed into law in the U.S. in 1990. For a more detailed account of this transition and analysis of Clark's critique, see Wylie (2005, 63-65).

[3] Koskinen (2011) addresses this aspect of Boghossian's critique of relativism with attention to ethnographic as well as archaeological examples. She argues that the kinds of statements Boghossian cites as evidence of widespread endorsement of a self-defeating epistemic relativism in the social sciences and humanities are, in fact, more plausibly construed as a much less threatening methodological relativism: a stance that involves withholding epistemic judgment of unfamiliar, apparently irrational beliefs, rather than embracing a "doctrine of equal validity" (Koskinen 2011, 105). I am similarly skeptical of Boghossian's reading of these claims but make a case here for delineating a spectrum of different degrees and types of pluralism that taking shape in archaeological practice; I do not believe they are all examples of methodological relativism, but do not pursue this line of argument here.

conceding that he does "reject science as a privileged way of seeing the world" (Boghossian 2006, 1-3; Johnson 1996). On Boghossian's account they are in the grip of a "doctrine of equal validity" from which it follows that thre is no basis for choosing among alternative world views (2006, 2); we are left with Rorty's frank ethnocentrism (1991) as the only grounds on which we can endorse our own "way of seeing the world."

Boghossian does not consider the archaeological debate in any more detail; it stands as a negative object lesson that motivates *Fear of Knowledge* as a whole, an example of capitulation to an ill-considered relativism that has "achieved the status of orthodoxy" in many fields (2006, 2; see also Koskinen 2011, 105). Given his subsequent analysis, however, Anyon's and Zimmerman's statements would seem to represent the second of three kinds of constructivism that Boghossian means to reject: constructivism about justification.[4] This he characterizes in terms of a challenge he calls "Encounter" (ENC): would our system of epistemic norms be called into question if we were to encounter a genuine alternative to it (96-102)? Boghossian sets some constraints on what could count as an alternative. It must conform to "norms of coherence…[which] flow directly from the very nature of an epistemic system" (98); it must have a "proven track record" of epistemic success (101); and it must generate claims that contradict those ratified by our system of epistemic norms (91). He allows that we might legitimately come to doubt our own "classical picture of knowledge"[5] (19) if a society we recognized as having "much more advanced science and technological abilities" proved to follow different epistemic norms (101). But he finds none of the cases presented by would-be relativists compelling. He considers just two: Rorty's treatment of the confrontation between Cardinal Bellarmine and Galileo, and the well worked-example of the apparent failure of the Azande to respect modus ponens. In the end, he argues, Cardinal Bellarmine was really operating on the same principles as Galileo in adjudicating the relevance of biblical evidence for astronomy (104), and the Azande case most likely reflects errors in the translation of logical operators; they must mean something different by conditional, "if…then" statements than we do (108). From the failure of these cases to instantiate ENC, Boghossian infers that no serious (coherent, action-guiding) contender will diverge significantly from our own epistemic system. Consequently, "we have no option but to think there are absolute, practice-independent facts about what beliefs it would be most reasonable to have under fixed evidential conditions" (110). Moreover, he holds that the norms embodied in science and captured by the "classic picture of knowledge" are a good approximation to these facts.

My interest here is not so much the specifics of the arguments by which Boghossian first conjures and then meets the imagined threat of corrosive relativism, but in what they obscure. They are a particularly stark example of an "anxious nightmare" that haunts contemporary philosophy by which, as Alan Richardson describes it, any weakening of commitment to epistemic foundationalism is presumed to carry the threat of mutual incomprehensibility and entail an inescapable slide into epistemic nihilism (2006, 9). I am in substantial agreement with Richardson and the Minnesota pluralists in regarding this conundrum – embodied in especially uncompromising terms in Boghossian's framing of ENC – as an artifact of the terms in which philosophers have theorized knowledge (Kellert, Longino and Waters 2006). It may be clever philosophy, but it radically misrecognizes the complexity of actual research practice and ignores the contingency of our evolving epistemic norms. In the process, it rules out of consideration the kinds of critical challenge that arise from more prosaic forms of pluralism that are often a key source of creative insight and the impetus for ongoing refinement of this practice.

By contrast to the fear-mongering critiques of relativism that make for headline news, the archaeologists who take seriously the claims of Native Americans routinely argue that collaborative practice enriches their research practice in any number of ways, not only adding useful detail but generating new questions

---

[4] The other targets of his critique are constructivism about facts and about the prospects for rationally explaining the beliefs we hold.
[5] Boghossian characterizes this "classic picture of knowledge" as a "broad consensus among philosophers, from Aristotle to the present day, on the nature of the relationship between knowledge and the contingent social circumstances in which it is produced": that what we "take ourselves to know" is not, in fact, dependent upon the conditions of its production (2006, 19). This "independence of knowledge from contingent social circumstances" turns on three claims: that "many facts about the world are independent of us" (20); that facts can have standing as evidence that justifies belief in the truth of a claim independent "of our social makeup" (21); and that evidence alone can sometimes justify belief – social conditions do not necessarily figure in explanations for true beliefs (21).

and forms of knowledge.[6] This more optimistic appraisal is evident in several statements by Zimmerman that are quoted in the *New York Times* article but not discussed by Boghossian. His observation about science not being privileged is prefaced by the assessment that there is need for "a different kind of science, between the boundaries of Western ways of knowing and Indian ways of knowing." He continues: "That's not to say [science] isn't an important way [of seeing the world] that has brought benefit. But I understand that, as a scientist, I need to constantly learn." (cited in Johnson 1996)

I contend 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. I will argue that when these projects succeed they powerfully illustrate the virtues of extending the cognitive-social norms of Longino's proceduralist account of objectivity – specifically, her "tempered equality of intellectual authority" – beyond the confines of the scientific community (2002, 128-135). In the process, my aim is to bring into focus the diversity of pluralisms that are a source of creative insight in these projects. By no means do they all, or even often, exemplify the stark oppositions between science and nay-science that are the stuff of anxious philosophical and archaeological nightmares.

Demands for Accountability: Consent, Consultation, Reciprocity

Consider first the kinds of challenges to which archaeologists now respond. By the early 1970s a primary target of Native American activism (and, indeed, of Indigenous and Aboriginal activism around the world) was the desecration of sacred sites and burials by archaeologists: American Indian Movement (AIM) activists, tribal leaders, and traditionalists demanded rights of repatriation and reburial for individuals whose remains had languished in museums often for a century or more.[7] They make these claims on a number of bases: by appeal to civil rights and freedom of religion where treatment of the dead are concerned and, more generally, on grounds that the material that makes up archaeological record is part of a living cultural tradition – their cultural tradition. In this, Indigenous and Aboriginal peoples rejected the presumption that had animated archaeological (and anthropological) practice for well over a century: that indigenous peoples were disappearing, or had disappeared, and that the cultural history and traditions to be salvaged were significant not to a living community but as an element of world history or, often enough, natural history. Angry reactions to repatriation legislation of the 1990s make these underlying assumptions explicit: "ancient skeletons belong to everyone"; they are "the remnants of unduplicable evolutionary events [about] which all living and future peoples have the right to know" (Ubelaker and Guttenplan Grant 1989, 260; cited in Thomas 2000, 209). By extension, no "living culture, religion, interest group, or biological population" has the right to restrict the research mandate of scientific experts who have the necessary skills and knowledge to make the best use of surviving "remnants" as evidence (Ubelaker and Guttenplan Grant 1989, 260; cited in Thomas 2000, 209–210).

In the context of centuries-long political and legal struggle these claims could hardly be more provocative. Consider Laurie Anne Whitt's classic assessment of strategies of appropriation by which Indigenous peoples had been dispossessed of their land, and then their material culture, music, intellectual property, and now their "genetic wealth and pharmaceutical knowledge" (1998a, 149).[8] Beginning with territorial rights, Whitt argues that appropriation turns on two reinforcing legal claims. The first is a declaration that the land Europeans encountered in the Americas (and elsewhere) was unoccupied – that it was *terra nullius* and therefore in the public domain – usually by fiat of European definitions of what counts as occupation, or otherwise by the forcible displacement of Aboriginal peoples. This opens the way for the

---

[6] For one of the most recent and comprehensive discussions of these initiatives and the epistemic contributions of collaborative practice to archaeology, see Atalay (2012). And for a more general account of the ways in which pluralism can benefit science see Chang's discussion of "Pluralism in Science" (2012, 268-284),

[7] For an accessible history of this controversy see Thomas (2000), and for a trenchant assessment of where the debate stands, Watkins (2000). See also contributions on the ethics of repatriation to Young and Brunk (2009) by Youngblood Henderson and by Scarre, and to Scarre and Coningham (2013) by Thompson and by Zimmerman. This summary is based on Wylie (1999, 2005).

[8] See also Whitt (1998b, 254-255), and discussion in Nicholas and Wylie (2013, 201).

conversion of definitionally public property into alienable, privately held property. Whitt observes that "the politics of property has never been confined to land" and shows how the same logic operates in a range of other domains. The declaration by archaeologists and physical anthropologists that Indigenous skeletal remains and cultural material are a "human heritage," and that the interests of science should determine their disposition, is immediately recognizable as yet another instance of this two-step move to seize and privatize Indigenous property, tangible and intangible, the second step being justified in this case by appeal to the specialized expertise and objectivity of the scientific community.

Legal counter-arguments to the effect that traditional territories, material culture, music, genetic information and bio-medical samples belong to identifiable descendant communities – that they cannot be treated as public domain, as without claimant – are, of course, the stuff of ongoing land claims and use rights struggles in a great many former settler and colonial contexts. In the case of archaeology, they have been the impetus, in many jurisdictions, for legislation that mandates repatriation, like NAGPRA in the United States. This regulatory framework and the political activism that brought NAGPRA into being is one of the most visible and highly formalized but by no means the only challenge to longstanding attitudes and ways of doing business that archaeologists now face. In the last twenty-five years demands for accountability have fundamentally transformed the conditions under which archaeology is now practiced.

This sea change has generated responses that fall along a continuum, ranging from hostile resistance at one extreme, through grudging compliance with requirements of consent and consultation, to a range of creative, collaborative forms of practice in which control over archaeological goals and products, conduct and authority is redistributed among partners.[9] The latter responses all involve some reconfiguration of disciplinary authority structures but they have quite different epistemic and methodological implications.

At a minimum, what is at stake in demands for accountability is that archaeologists respect the interests and sensibilities of descendant communities, even if they don't credit them with epistemically compelling norms of justification. This includes requirements, ethical and sometimes legal, that archaeologists actively consult with Indigenous communities whose heritage they study and, increasingly, negotiate terms of access and consent for any research they undertake.[10] Many tribes now run their own review process, vetting research proposals and requiring researchers to sign Memoranda of Agreement or Understanding that may include provisions for control not only over tangible and intangible cultural heritage, but also over the use and distribution of the results of archaeological research (see Atalay 2012, 130-134). More generally, archaeologists are expected to practice archaeology in culturally sensitive ways. Guidelines for such practice may include proscriptions against destructive testing or the excavation of sacred sites and burials; they may call for blessing or cleansing ceremonies; and they typically require that archaeologists respect Indigenous cultural norms of access to and publicity about special objects, sites, and traditional knowledge. Increasingly they also include requirements of reciprocity and participation. Archaeologists are expected to give something back to the communities whose heritage they study: at a minimum, plain language reports that make research results accessible to the community; by extension, education and outreach programs; more ambitiously, capacity-building training and employment for community members. They also find themselves drawn into community-initiated projects that may have little connection to their research interests; they are enlisted to help develop not just community museums and interpretive centers, but eco-tourism and fair trade networks.

In principle, and often in practice, even though requirements of consent, consultation, and reciprocity may constrain what archaeologists can study and publish, they leave the archaeology itself unchanged. Archaeologists pursue questions of their own internal definition, in accord with disciplinary conventions that define what counts as empirical adequacy, interpretive or explanatory credibility, but they do this subject to requirements that they explain what they're doing and why, that they get permission to proceed

---

[9] For a more detailed account of these responses, see Nicholas and Wylie (2009, 2012).

[10] The second of eight "Principles of Archaeological Ethics" adopted by the Society for American Archaeology in 2009 requires "an acknowledgement of public accountability and a commitment to make every reasonable effort, in good faith, to consult actively with affected group(s), with the goal of establishing a working relationship that can be beneficial to all parties involved" ("Accountability," SAA 1996).

and follow protocols of respectful, culturally appropriate practice. Sometimes these protocols are predicated on Indigenous traditions that include belief systems and oral histories of the kinds that those committed to "scientific" history and archaeology have long disdained. A classic statement that set the tone for much that followed was Lowie's pronouncement, in 1915: "I cannot attach to oral traditions any historical value whatsoever" (598).[11] But adhering to protocols of consent and respectful practice carries no presumption that archaeologists must embrace the substance of these beliefs beyond respecting the fact that they matter to those with whom they work and whose cultural traditions they study.[12] They set constraints on access and behavior that function much like an injunction that visitors be quiet when they enter a cathedral.

Beyond syncretic pluralism

The pluralism represented by this baseline of respectful practice is, I suggest, tolerant but non-interactive, a form of syncretism by which archaeological and indigenous modes of understanding and methodologies co-exist, not always easily but no longer with priority granted automatically to the scientific when it comes to questions of access and use.[13] There is nothing here to alarm Boghossian and, in fact, the statements he quotes from the *New York Times* are not unusual in contemporary contexts of archaeological practice; often enough they signal respect for epistemic difference in the absence of epistemic engagement.

Frequently, however, the process of consultation, and especially that of finding meaningful forms of reciprocity, gives rise to more robust and epistemically consequential forms of collaborative practice. This is research undertaken in various forms of partnership with indigenous communities in which, for better or worse depending on your perspective, there is the kind of interaction that does affect the substance of the science – the questions addressed, its norms of practice, presuppositions, and its results– sometimes in transformative ways. Consider an example that mobilizes interactive forms of expertise in ways that begin to push epistemic boundaries: the 1999 discovery of the frozen remains of a young man on the edge of a high elevation glacier in northern British Columbia near the Yukon border. The site of this find is within the traditional territory of the Champagne and Aishihik First Nations (CAFN), who decided that a program of research should be undertaken to learn who this person was, where he had come from, and who had been his kin. They named him Kwäday Dän Ts'ìnchí (Long-Ago Person Found), and negotiated an agreement with provincial authorities designed to ensure that "cultural concerns are respected while recognizing the significant scientific considerations inherent in a discovery of this nature" (British Columbia Ministry 2010; see also Beattie et. al 2000, 135; Dickson and Mudie 2008, 27-28). The description in the *Yukon News* echoes the sentiment expressed by Zimmerman: "The project became a blend of traditional values and modern science. Rather than claiming ownership of the find, the First Nations shouldered the responsibility for the stewardship of this remarkable discovery" (Gates 2010).

In this spirit the CAFN have worked closely with provincial authorities and a diverse team of researchers as full partners, reviewing and approving all research related to the human remains and associated artifacts. The province administered the agreed-upon research and the CAFN took the lead in ensuring

---

[11] Lowie argues that the only basis for establishing historical truths, and for disentangling them from mythological fiction, is evidence from archaeology and historical linguistics, in which case the purported evidence from oral traditions adds nothing (1915, 598). See Thomas' discussion of context in which Lowie published this critique. It was a response to the use that two influential archaeologists, Roland B. Dixon and John Lee Swanton, had made of oral tradition as the basis for reconstructing the affiliations between archaeologically identified cultures and contemporary descendants, including the Hidatsa who figure in the second of the two cases I discuss in what follows (2000, 99-101).

[12] This is a point Koskinen makes when she observes that, although researchers engaged in community archaeology need to "understand that the Native Americans believe their stories," it does not follow from this that they "have to believe what the Native Americans believe" (2011, 104). She emphasizes the ways in which Zimmerman and others mark the differences between their own epistemic goals and practices and those of Indigenous communities. I am interested here in examples of collaborative engagement in which these boundaries are productively transgressed.

[13] The distinction I draw between "syncretic" and "dynamic" pluralism parallels Chang's distinction between "tolerant" and "interactive" pluralism (2012, 254, 270-284). I use "interactive" as an adjective here, and specify it below in terms suggested by Collins and Evans's account of "interactional expertise" (2007).

that local Indigenous values were respected and played a central role in interpreting the results of scientific analysis.

The research protocols approved by the CAFN include destructive testing: the radiocarbon and collagen dating which establish that Kwäday Dän Ts'ìnchí likely lived sometime between A.D. 1670 and 1850 (Richards et. al 2007: 720-723), as well as a full autopsy which provided the data necessary for a pathology workup and food residue analysis that became the basis for a detailed reconstruction of what the glacier traveler had ingested in his last three days (Dickson and Mudie 2008, 42-45). The CAFN also approved isotope and trace element analysis of hair, bone, and muscle tissue which made possible the reconstruction of a lifetime dietary profile (Richards et. al 2007, 723-728; Dickson and Mudie 2008, 32; Dickson et. al 2004, 482-484). The analysis of associated artifacts, especially the traveller's spruce root rain hat and squirrel skin robe, tool kit and cache of food, provides intriguing evidence of cultural affiliation, and the various pollens, microbes, parasites, and insects lodged in his hair and clothes were environmental clues to the route he had taken to the glacier where he died (Dickson and Mudie 2008, 31-35). Crucially, the CAFN initiated a community DNA analysis for which 248 community members volunteered DNA samples (Brown 2008); this was motivated by a concern to determine which family and clan groups should handle the disposition of Kwäday Dän Ts'ìnchí's remains and his memorial.

The results thus far published indicate that Kwäday Dän Ts'ìnchí' was 18-20 years old, had traveled roughly 100 km in the three days before his death, likely in the summer and originating on the coast given evidence that, early in his journey, he had eaten salmon, shellfish, mosses and flowering beach asparagus, and had been exposed to chenopodium pollen. Mineral residue from water consumed as he travelled reinforce these conclusions; two to three days before he died he drank brackish water that occurs only in marine environments, and in his final hours, glacier melt water (Dickson and Mudie 2008, 42-44). Most interesting, his lifetime dietary profile indicates that he had lived predominantly on the coast, eating a marine diet, but hair composition analysis suggests that, in the last year of his life, he had shifted to terrestrial, inland foods (Richards et. al 2007, 730; Corr et. al 2008). His clothing and tool kit likewise incorporate both coastal and interior elements; his robe was made of the skins of arctic ground squirrel which live only in the interior, but his hat was woven of Sitka spruce which grows only on the coast (Dickson and Mudie 2008, 31, 44). Finally, the community DNA study is reported to have identified some seventeen living matrilineal relatives; they are affiliated primarily with the Wolf Clan, and live both in the interior and on the coast (Brown 2008, Gates 2009). There is some controversy about the DNA results, but their broad significance lies in the fact that they call into question the reified ethnic categories that underpin much conventional ethnography and archaeology; they challenge the assumption that tribal identity is geographically localized, rather than a spatially extended network of family and clan affiliations that, in this case, link coastal and interior communities. As reported in the local news: "the DNA research has been a scientific confirmation of something that the people have long known, that the traditional ties between the coastal Tlingit and the people of the Southwest Yukon transcend artificial political boundaries" (Gates 2009).[14]

This is, then, a case in which a formal infrastructure for collaboration made significant scientific work possible including destructive testing and a DNA study, both types of research that are, for good reason, often unacceptable to Indigenous descendant communities.[15] Crucially, this research program addressed questions about clan and family affiliation that were of interest to the First Nations but were not a priority for the archaeologists, medical anthropologists, paleo-ethnobotanists and other scientists who made up the research team, even though the kinds of analysis required to answer them does fall squarely within the ambit of conventional archaeological science. Moreover, addressing these questions destabilizes key framework assumptions with potentially transformative implications for the archaeology and ethnography of the region.

---

[14] Kwäday Dän Ts'ìnchí's remains were cremated in 2001 and his ashes returned to the area where he lost his life. Analysis of the recovered samples continues, extensive oral history is under way, and the Royal British Columbia Museum is in process of publishing a book that assembles the research results and provides an account of the collaborative research process.
[15] For discussion of issues raised by archaeological DNA studies, see Pullman and Nicholas (2011).

Kwäday Dän Ts'ìnchí' is also a case that brings into sharp focus the asymmetries that structure these collaborations. Indigenous partners have long had to cultivate an understanding of, and to navigate, the norms of Euro-American knowledge production and aligned legal conventions. They are, of necessity, skilled cultural translators who have considerable "meta-expertise" and often "interactional expertise" with respect to archaeology and related fields, to use concepts put in circulation by Collins and Evans (2007).[16] This puts indigenous community partners in a position, if they have a voice in the process, to assess what various scientific specialisms might contribute to a project, and what they can ask of their collaborators at the same time as they bring to bear their own contributory expertise as cultural advisors, and museum and cultural heritage professionals.

Dynamic Pluralism

More challenging and rewarding epistemically are collaborations in which archaeologists develop enough reciprocal (interactional) expertise to appreciate and actively engage the specialist knowledge of their community partners. Collaborative practice grades into a dynamic pluralism the goal of which is not only to make archaeology accountable – to "redress real and perceived inequalities in the practice of archaeology" – but also, and crucially, to "inform and broaden the understanding and interpretation of the archaeological record through the incorporation of Aboriginal worldviews, histories, and science" (Nicholas 2010, 11). It is, of course, the very idea that archaeological inquiry might be in any way influenced by, or held accountable to, Indigenous communities' understanding of their own history and cultural traditions that really raises hackles. From the perspective of those who defend reason, objectivity, and disciplinary autonomy, to accede to these demands is to capitulate to forces of unreason that threaten to undermine the scientific research enterprise as a whole. And yet a growing number of practitioners make the case that, far from compromising the integrity of their archaeology, active collaborative engagement with Indigenous communities has greatly enhanced their research, in scientific terms.

Consider an argument for this kind of engagement in which Roger Echo-Hawk, a Native American historian and archaeologist, addresses directly the question of what should count as evidence for credible claims about the cultural past. It is striking that, as Echo-Hawk notes (1997, 92-93) and as Boghossian's opening examples illustrate (2006, 1-4), some of the starkest confrontations between science and indigenous knowledge have been over the epistemic standing of oral history and oral tradition. Echo-Hawk identifies a number of reasons for this. The tribal elders who are most knowledgeable about oral tradition are often religious leaders for whom oral traditions are spiritual traditions, to be treated as "holistic truths"; they are likely to reject any analysis designed to extract historical content as fundamentally misguided, another example of colonial imposition and appropriation. On the other side there is the long-held, field-defining convention, reflected most starkly in Lowie's denunciation of "native traditions" (1915, 597), that oral history is completely lacking in substantive content and objectivity; it is, at best, too unstable, too "malleable" (Echo-Hawk 1997, 92), to be considered to carry any evidential weight and, at worst, simply a projection of faith-based religious commitment that, as genre, could not be expected to bear any historical information about the cultural past. Echo-Hawk rejects this "confrontational polarization" (1997, 93; see also 2008), arguing that Indigenous oral traditions are complex and multi-dimensional. They do certainly incorporate spiritual, metaphorical references to supernatural spirits and mythic creatures, but they also carry rich historical information about community migrations and lifeways, geological and climatic as well as cultural events, sometimes of remarkable time depth.[17]

---

[16] Collins and Evans describe "contributory expertise" as the cognitive and physical skill, and socialization into a community of expert practitioners, that puts members in a position to contribute to the production and ratification of specialist knowledge (2007, 24-27). Interactional experts have communicative competence; they have "expertise in the language of a specialism, [without] expertise in its practice" (28). And "meta-experts" have a level of understanding that puts them in a position to adjudicate expertise in fields in which they are not themselves contributory or interactional experts.

[17] In calling into question this long-held disciplinary norm defining what counts as evidence, Thomas considers a number of examples of Native American oral traditions that converge upon, correct, and extend historical

Taking this appraisal as his point of departure, Echo-Hawk develops an analysis of various strands of Caddoan oral tradition, identifying recurrent and convergent narratives about the movements and cultural practices of Pawnee ancestors in the Central Plains of the United States (1997, 93). These include, for example, accounts of immigration and the diffusion of cultural traditions from the eastern Central Plains to western groups associated with the emergence of animal ceremonialism and the advent of square and then circular earthlodge architecture (1997, 98-100). Echo-Hawk makes the case that what had been understood as references to animal spirits should be interpreted as descriptions of animal ceremonialism; it is not literally eastern animal spirits who instructed the Skidi Pawnee in earthlodge construction, but "humans engaged in a specific form of religious life" (1997, 99) who transmitted these architectural traditions. The Pawnee oral tradition thus details historical events and affiliations that converge on and significantly extend what can be learned from archaeological evidence of the appearance and distribution of design traditions and earthlodge architecture. The archaeology establishes a chronology for the transitions described by oral tradition which, in turn, suggests that diffusion of earthlodges may be explained by the advent and influence of animal ceremonialism. It further suggests an affiliation between Central plains and neighboring groups of considerable time depth, linking the contact period Pawnee with Central Plains cultural traditions that archaeologists have dated to AD 950-1400. The significance of this finding is that, on conventional archaeological and historical wisdom, the Pawnee could not have entered the Central Plains until the Spanish drove them out of the Southwest sometime around AD 1600. The evidence from oral tradition, in conjunction with archaeological sources, suggests a continuous Caddoan presence in the Central plains for the past 1000 years. This represents a significant challenge to the framework within which Plains archaeology has developed, calling into question the conventions of description and analysis that dissociate contact period from pre-contact cultural traditions in the region. In short, there is much to be gained, Echo-Hawk argues, from "a more complete review of Pawnee and Arikara oral traditions and a fuller consideration of the archaeological record…integrat[ing] data from two different sources" (1997, 99).

Echo-Hawk's argument for taking oral history seriously – for reconsidering entrenched norms of justification in archaeology and history that privilege the written and the material record over oral history – turns on an appreciation of the discipline involved in learning and transmitting oral traditions (2000, 2008, 2009).[18] Angela Cavender Wilson describes the early training and lifelong practice in telling and retelling key life and community histories typical among the Dakota. It is assumed, she observes, that "the ability to remember is an acquired skill, one that may be acutely developed or neglected" (Wilson 1998, 29). If learning and maintaining oral traditions is a form of expertise, a rigorous community practice, it should not be surprising that they could be a rich repository of evidence about past events and conditions of life. What Echo-Hawk calls for is not, then, uncritical acceptance but a combination of this contributory expertise with the standard historical practices of reading sources against the grain, cross-examining them, considering the contexts and purposes of their production: a mode of historical inquiry described by Collingwood as the hallmark of "scientific history" (1946, 222-227, 274-282).

Echo-Hawk's purpose is to reframe the polarized debate in which oral sources are written off by archaeologists frustrated with yet another "collision between science and religion" (98), and Native Americans who reject insights from the archaeological record as irrelevant to understanding Pawnee oral tradition on the other. He is intent on drawing all parties to an appreciation that each source has the capacity to refine and enrich other. To return to my purpose, Echo-Hawk's practice illustrates what is to be gained by engaging the "new kind of science" advocated by Zimmerman (Johnson 1996); it constitutes

---

reconstructions based on archaeological and geological evidence going back as far as the late Pleistocene (2000, 244-253). What these examples show is that oral traditions cannot be rejected out of hand as inherently untrustworthy and entirely without evidential value. This is not, however, to endorse the equally strong counter-claim that they are a privileged source of evidence; as Echo-Hawk argues, they require discerning assessment and interpretation, as does any source of evidence. He makes this point explicitly in a sharply critical review of Mason (2006) where he rejects the presumption that oral tradition must be endorsed or rejected in categorical terms (2008, 124).

[18] For comparison with European oral traditions, see Carruthers' account of medieval "memory culture": the now neglected "arts of memory"; the modes and uses of trained memory, and the "recollection devices" that can give oral traditions considerable stability (2008). I think Conor Mayo-Wilson for this reference.

a form of dynamic pluralism in which diverse and hybrid forms of contributory expertise are brought to bear on conventional archaeological problems, reframing focal questions and orienting assumptions.

No doubt a critic like Boghossian would assimilate Echo-Hawk's analysis to his treatment of the Bellarmine and Azande cases: one part translation error and one part vindication of Western knowledge systems in which scientific norms of justification ultimately prevail. From a stance of confident adherence to the epistemic foundationalism and objectivism of "our classical picture of knowledge" (19), if Echo-Hawk contributes anything to our understanding of Central Plains prehistory, it must be because he is positioned to recognize and appropriate scientifically credible insights that have somehow been stumbled upon and incorporated into a non-scientific cultural tradition. His success is just a recent example of a longstanding practice by which the agents of colonial and imperial power have selectively assimilated to their own systems of knowledge what they find useful in the traditional knowledge of subdominant "others." But this, I submit, is to miss the point, indeed, it is to miss several key points.

For one thing, the translation process is much more complex than a simple appraisal that Pawnee oral tradition (somehow) "got it right" historically. It requires attention to contexts of use, transmission practices and, above all, a capacity to distinguish the diverse registers in which the claims constitutive of historical narratives are made.[19] More to the point, it requires that archaeological practitioners develop robust interactive expertise with respect to Indigenous oral traditions. And as both cases illustrate, this process of translation and assimilation has the capacity to destabilize settled assumptions, raising questions about the subject domain and, crucially, about norms of justification that practitioners had never considered.

More fundamentally, to frame the debate in terms of epistemic absolutes is to systematically obscure the contingent nature of the goals and norms of evidential reasoning that animate our own research practice; in dynamic, productive research programs these are the subject of continuous negotiation at the level of practice. Boghossian's claim that "we have no option" but to endorse "[our] classical picture of knowledge" casts our epistemic norms – the norms currently underwritten by the epistemic objectivism of this "classic picture" – as static, settled, necessarily foundational and, in this, unresponsive to critical challenge.[20] By taking our norms and the forms of knowledge they ratify as the baseline for assessing the track record of alternative systems, the only condition under which we can be compelled to critically examine current practice is when we encounter (in the sense of ENC) a mode of inquiry that relies on radically divergent norms of justification but shares our goals and meets our standards of success – one that delivers "advanced science and technological success." In this the terms of ENC foreclose the possibilities illustrated by the examples discussed here, where active engagement with alternative epistemic systems brings into focus cognitive goals we have not thus far considered and, in the process, throws into relief the limitations of practices we have evolved in response to these goals. This openness to learning from perspectives that diverge from our own embodies an epistemic principle that is at least as central to the traditions of inquiry we consider scientific as those captured by the tenets of Boghossian's "classical picture of knowledge": the commitment to hold open to critical scrutiny even our most deeply held convictions, including foundational epistemic and methodological norms. Boghossian's sustained argument for deflecting any challenge to settled conventions of inquiry is an abrogation of this core principle.

Implications for Archaeology

---

[19] This last requires a sensitivity to distinctions of the kind Sperber has drawn between different propositional attitudes and strengths of commitment, with respect to different types of factual and representational belief (1982, 166-177). Koskinen draws on Sperber to make the case that, in fact, Zimmerman's brief for a "different kind of science" is best understood, not as "a mixing of different epistemic practices," but as a juxtaposition of propositions that convey quite different kinds of ethical and epistemic commitment (2011, 102-103). I concur that these distinct purposes should be recognized, but find them much more deeply and productively intertwined than Koskinen allows. See Chang on the complexities of pluralist "co-optation" (2008, 281-282).

[20] Indeed, Boghossian's rebuttal to Rorty's treatment of the Bellarmine case makes this explicit. He rejects the suggestion that the scientific world view in terms of which we now understand the confrontation between Bellarmine and Galileo was in process of formation; there must be "system-independent fact[s]" of justification to which our evidential standards (those that now settle the question for us) approximate (2006, 69).

To draw together the threads of this argument, consider three final questions:
  1) What do collaborative projects contribute to archaeology?
  2) What kinds of pluralism do they represent, and what challenge(s) do these pose to ideals of objectivity?
  3) What is the epistemic rationale for these kinds of pluralism? How do we account for the fact that, despite anxious nightmares about the threat they pose, they can and often do significantly improve archaeological science?

Where the first question is concerned, the Kwäday Dän Ts'ìnchí case illustrates how even consultative engagement – on the face of it a non-interactive, epistemic syncretism – can result in a productive recasting of focal questions, enlarging the research agenda and bringing a critical perspective to bear on assumptions about Indigenous culture that have long informed archaeological, historical, and ethnographic inquiry. Echo-Hawk's brief for a "New Ancient History for Native America" shows how a more dynamic engagement across traditions can destablize entrenched norms of justification, opening space to recognize new lines of evidence and interpretive resources that have the potential to significantly reconfigure received wisdom, empirically and conceptually. Crucially, both examples illustrate how fruitful it can be to bring a critical (outsider) perspective to bear on disciplinary conventions; 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. It provokes a consideration of alternatives that might never have arisen through internal deliberation. In short, archaeologists are finding that, if they take as a point of departure something other than an intellectual version of *terra nullius*, they have potential partners who can significantly enrich their store of facts, expand their repertoire of working hypotheses and keep them epistemically honest, ensuring that their own epistemic norms continue to evolve.

On the second question: I have identified a spectrum of pluralisms ranging from respectful co-existence to much more dynamic and generative forms of collaborative practice.[21] Reflecting on these it is immediately obvious that even respectful co-existence, with no significant cross-fertilization of substantive beliefs and epistemic conventions, depends on cultivating some degree of mutual understanding. It requires that archaeologists and non-archaeologists alike develop a modicum of meta-expertise with respect to each other's knowledge traditions. This sustains what I have referred to as a form of syncretic pluralism: a recognition of difference without significant epistemic engagement.

Collaborative practice in its various grades requires, in addition, that archaeologists recognize that their community partners – in the examples considered here, Indigenous peoples – do in fact bring various forms of contributory expertise to their joint projects; they are experts in their own epistemic traditions. As in the case of more familiar forms of inter-disciplinarity, these extra-disciplinary engagements will only succeed if the partners move beyond respectful toleration of epistemic difference and develop significant interactional expertise with respect to the "specialism" in which their partners have contributory expertise. This gives rise to dynamic pluralism of at least two kinds:[22]
  - Limited cross-fertilization: a practice of assimilating to an existing archaeological framework elements of factual or interpretive knowledge that originate in an autonomous epistemic tradition, but are relevant to established lines of inquiry and can be seen to conform to extant norms of justification (a matter of appropriating external resources that pose no challenge to existing disciplinary norms);
  - Epistemic engagement: an exchange in which archaeological partners learn to see their own research traditions from the standpoint of other ways of understanding the world; a comparative,

---

[21] Or, as Chang might describe it, these examples lie along a spectrum that runs from a minimalist "tolerant" pluralism to various forms of robustly "interactive" pluralism that involve cross-fertilization of various kinds between traditions (2012, 254).
[22] On Chang's scheme, the first of these two "interactive" types of pluralism is an instance of what he describes as "co-optation" (2012, 281), and the second is similar to the more pro-pluralism-friendly forms of "integration" he discusses (2012, 279-280).

reflexive stance that throws into relief the limitations and the strengths, the problem and convention-specificity of their own contributory expertise.

While syncretic pluralism poses little threat to Boghossian's epistemic objectivism, this last grade of pluralist engagement does open up the possibility that interaction with external, alternative knowledge systems will destabilize entrenched epistemic and methodological norms. It may not pose the kind of global, all-or-nothing challenge called for by Bhogossian's "Encounter" (ENC), but it can put significant pressure on goals of inquiry and norms of justification insiders to an established research tradition take to be self-evident. Crucially, when these more prosaic pluralist encounters draw attention to the contingent, evolving nature of our disciplinary goals and norms they call into question Boghossian's confident conclusion that our current best practices approximate to "absolute, practice-independent facts" about what counts as justification (2006, 110). The conviction that we have "no option but to think there are [such facts]" can only be sustained as an act of epistemic faith.

Finally, consider the third question: what is the epistemic rationale for these stronger grades of collaborative engagement? The central principle here is articulated by Zimmerman when he observes that, as a scientist, he must be prepared "to constantly learn" (Johnson 1996). Given his longstanding commitment to critical, reflective forms of epistemic engagement,[23] I understand Zimmerman to be taking a stance of openness, not just to a cross-fertilization of useful facts, but to new ways of learning; he sees the need to take distance from the science he practices, to consider its established research agenda and norms of justification in light of other epistemic traditions.

The philosophical rationale for such a stance is captured by the liberal democratic conviction that more ideas, diverse voices and angles of vision is inherently a good thing epistemically. 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. Helen Longino articulates this principle in terms of a proceduralist account of objectivity, arguing that the beliefs we should count as knowledge are those that arise from the right kind of process of critical scrutiny, and the right processes are those which ensure that contending beliefs are subject to "criticism from multiple points of view" (2002, 129). These she characterizes in terms of a set of four jointly social and cognitive norms that govern processes of deliberation within well functioning scientific communities, and that bear not only on specific knowledge claims but also on norms of justification (2002: 128-131).[24] Most relevant here is the fourth of these norms, "tempered equality of epistemic authority" (202, 131-133), which requires that mechanisms be in place to counteract exclusionary practices. Longino argues, in this connection, that "not only must potentially dissenting voices not be discounted, they must be cultivated"; to fail to do this is "not only a social injustice but a cognitive failing" (2002: 132).

Longino is clear on the point that this norm of "tempered equality of epistemic authority" raises complex questions about community membership; it "makes us ask who constitutes the 'we' for any given group" (2002, 134). As formulated, however, it delineates "duties of inclusion and attention" (132) that apply to the members of a community of scientists; it includes no provision for seeking out external communities that might be the locus of relevant expertise or critical perspective and extending this norm of epistemic authority to them.[25] This carries the risk that communities of epistemic peers who share cognitive goals

---

[23] Zimmerman has been an outspoken internal critic of archaeologists who have refused engagement with Native Americans, and was an early advocate within archaeology of Indigenous archaeology (e.g., 1989).

[24] These four social-cognitive norms require the following: that there be public venues for criticism which ensure that dissent can be voiced; that criticism gets uptake; that the standards by which theories, hypotheses, evidential claims are evaluated are publicly recognized and themselves open to critical assessment; and that research "communities… be characterized by equality of intellectual authority" (2002, 131). The rational for this suite of practices is that an epistemic community must maintain conditions of critical adjudication that secure the possibility of "transformative criticism" (1990, 73-74).

[25] In *The Fate of Knowledge* Longino does emphasize that "a diversity of perspectives is necessary for vigorous and epistemically effective critical discourse" (2002, 131), so the research community has an obligation to ensure that alternative views are "developed enough to be a source of criticism and new perspectives" (132). More recently, she has argued that, to counter the risk that idiosyncratic assumptions may dominate a research community, it may be

and conventions of practice will also share cognitive lacunae, about their subject domain and about the epistemic, methodological standards "by appeal to which criticism is made relevant to the goals of the inquiring community" (130).

To motivate a discerning extension of Longino's norm of "tempered equality of intellectual authority" to external communities, I argue that we need the resources of a sophisticated standpoint theory.[26] As a form of social empiricism, the central tenet of standpoint theory is a "situated knowledge thesis": the recognition that what we experience and what we know (well) is conditioned by our social experience. Standpoint theorists formulate this thesis in structural terms. They emphasize the ways in which epistemic situatedness is not just idiosyncratic, a consequence of our individual talents, dispositions, and unique personal histories, but must be understood to arise from contingent yet powerful lines of social differentiation that make a systematic difference to the material conditions of our lives, to the relations of production and reproduction that shape our identities and opportunities, and therefore to our capacities as knowers. These conditions are understood to shape not only our standing as knowers – whether we will be recognized as epistemically credible – but also our cognitive and epistemic resources.[27]

A distinctive feature of standpoint theories of particular relevance here is an appreciation that those who are socially marginal may, in fact, have considerable epistemic advantage that typically goes unrecognized. Most prosaically, they may be privy to evidence and may develop the interpretive heuristics necessary to understand and to effectively navigate negotiate dimensions of the social and natural world that the comparatively privileged rarely engage, or are invested in avoiding. More controversially, this "inversion thesis" draws attention to distinctive forms of knowledge that arise from non-mainstream social locations, embodied in tacit knowledge, sensibilities, and conceptual resources that have taken shape independently of, on in opposition to, the traditions that constitute dominant culture. Finally, the experience of exclusion or marginalization may itself be as source of insight. The stance of an insider-outsider may give rise to the kind of "double consciousness" made famous by W.E.B. Du Bois; it may require robust interactional expertise with respect to the norms of the dominant culture, affording comparative perspective and throwing into relief assumptions and conventions of practice that those in positions of comparative privilege take for granted. In the process this may catalyze counter-narratives and counter-norms that have the conceptual resources to capture forms of experience, dimensions of the world (social and natural) and ways of navigating it that are absent or excluded from the dominant culture. Sometimes this dissident experience gives rise to a critical "standpoint on" knowledge production (Weeks 1996).

Taken together these considerations constitute grounds for a principle of contingent epistemic advantage on the margins: those who are socially marginal may be epistemically advantaged in ways that are relevant to specific epistemic projects and that conventional working indicators of epistemic credibility do not track.[28] In particular, they 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.

---

important to "require openness to criticism both from within and from outside the community" (2004, 134). She notes, however, that communities with the resources to "demonstrate the non-self-evidence of shared assumptions or to provide new critical perspectives may be too distant, spatially or temporally, for contact" (134). I argue here that it should be a priority, in some contexts at least, to seek out interlocutors who can bring external, critical perspectives to bear on the knowledge claims and norms of justification that define a research community's practice.
[26] This account of standpoint theory summarizes an argument for reconceptualizing its central tenets that I originally proposed in Wylie (2003) and have since developed in Wylie (2012).
[27] I draw here on Fricker's distinction, in *Epistemic Injustice,* between forms of testimonial injustice which involve the misrecognition of epistemic credibility, and hermeneutical injustice in which a lack of conceptual resources in the dominant culture precludes uptake of critical or dissident perspectives (2007).
[28] I emphasize that what I posit here is not automatic epistemic privilege but contingent epistemic advantage that (may) accrue to a structurally location and standpoint on knowledge production (Wylie 2012, 62).

To make sense of the kinds of epistemic advantage associated with pluralist, collaborative practice in archaeology, I propose the following standpoint theory-derived principle for extending Longino's norm of tempered equality of intellectual authority:

> In order to counteract the risks of insularity and the effects of dysfunctional group dynamics that can insulate foundational assumptions and norms of justification from critical scrutiny, well functioning epistemic communities should actively cultivate collaborations with external communities whose epistemic goals, practices, and beliefs differ from their own in ways that have the potential to mobilize transformative criticism.

On this principle the impetus for dynamic, interactive pluralism is not just that it may fill lacunae and correct errors in the substantive beliefs of a research community, but that it can bring community members to a critical standpoint on their established knowledge making and ratifying practices. It is one way to cultivate an awareness of the contingency of our current epistemic goals and standards, to open them to critical scrutiny and, in this, to ensure that we "constantly learn" from our evolving practice. Where archaeology is concerned, the rationale for duties of "attention and response" to collaborative partners thus arises both from moral obligations to descendant and affected communities, and from an epistemic obligation rooted in norms of critical engagement that are constitutive of scientific inquiry.

Acknowledgements

Bibliographic References

Atalay, Sonya. 2012. *Community-based Archaeology: Research With, By, and For Indigenous and Local Communities*. Berkeley CA: University of California Press.

Beattie, Owen, B. Apland, E. W. Blake, J. A. Cosgrove, S. Gaunt, S. Greer, A. P. Mackie, K. E. Mackie, D. Straathof, V. Thorp, and P. M. Troffe. 2000. "The Kwäday Dän Ts'inchi Discovery From a Glacier in British Columbia." *Canadian Journal of Archaeology* 24(1): 129-148.

Boghossian, Paul. 2006. *Fear of Knowledge: Against Relativism and Constructivism*. Oxford: Oxford University Press.

British Columbia, Ministry of Forests Lands and Natural Resource Operations, Archaeology. 2011. "*Kwäday Dän Ts'ìnchí Chronology*. British Columbia Provincial Government 2000. [Cited December 20, 2011]." Available from http://www.for.gov.bc.ca/archaeology/kwaday_dan_tsinchi/chronology.htm.

Brown, Chris. 2008. "Scientists Find 17 Living Relatives of 'Iceman' Discovery in B.C. Glacier." *CBC News, British Columbia*, April 25.

Carruthers, Mary. 2008. *The Book of memory*. Cambridge: Cambridge University Press.

Chang, Hasok. 2012. *Is Water H_2O? Evidence, Realism and Pluralism*. London: Springer.

Clark, Geoffrey. A. 1996. "NAGPRA and the Demon-Haunted World." *Society for American Archaeology Bulletin* 14 (5): 3, 15 (2): 4.

———. 1998. "NAGPRA: The Conflict Between Science and Relition, and Political Consequences." *Society for American Arhcaeology Bulletin* 16 (5): 24-25.

Collingwood, Robin G. 1946. *The Idea of History*. Oxford: Oxford University Press.

Collins, Harry, and Robert Evans. 2007. *Rethinking Expertise*. Chicago: University of Chicago Press.

Corr, Lorna T., Michael P. Richards, Susan Jim, Stanley H. Ambrose, Alexander Mackie, Owen Beattie, and Richard P. Evershed. 2008. "Probing Dietary Change of the Kwäday Dän Ts'ìnchí Individual, An Ancient Glacier Body from Biritsh Columbia." *Journal of Archaeological Science* 35 (8): 2102-2110.

Dickson, James H., and Petra J. Mudie. 2008. "The Life and Death of Kwäday Dän Ts'ìnchí, an Ancient Frozen Body from British Coloumbia: Clues from Remains of Plans and Animals." *The Northern Review* 28 (Winter): 27-50.

Dickson, James H., Michael P. Richards, Richard J. Hebda, Petra J. Mudie, Owen Beattie, Susan Ramsay, Nancy J. Turner, Bruce J. Leighton, John M. Webster, Niki R. Hobischak, Gail S. Anderson, Peter M. Troffe, and Rebecca J. Wigen. 2004. "Kwäday Dän Ts'ìnchí, the First Ancient Body of a Man From a North American Glacier: Reconstructing His Last Days by Intestinal and Biomolecular Analyses." *The Holocene* 14 (4): 481-486.

Douglas, Heather. 2009. *Science, Policy, and the Value-Free Ideal*. Pittsburgh: University of Pittsburgh Press.

Echo-Hawk, Roger. 1997. "Forging a New Ancient History for Native America." In *Native Americans and Archaeologists: Stepping Stones to Common Ground*, ed. Nina Swidler, Kurt E. Dongoske, Roger Anyon and Alan S. Downer, 88-102. Walnut Creek, California: AltaMira Press.

———. 2000. Exploring Ancient Worlds. In *Working Together: Native Americans and Archaeologists*, ed. Kurt E. Dongoske, Mark Aldenderfer, and Karen Doehner, 3-7. Washington DC: Society for American Archaeolgy.

———. 2008. Review: *Inconstant Companions* by Ronald J. Mason. *Great Plains Research* 18(1): 124-125.

Fricker, Miranda. 2007. *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford: Oxford University Press.

Gates, Michael. 2009. "Kwäday Dän Ts'ìnchí Teaches Us How to Work Together." *Yukon News,* March 20.

Johnson, George. 1996. "Indian Tribes' Creationists Thwart Archaeologists." *The New York Times* October 22, 1996.

Kellert, Stephen H., Helen Longino and C. Kenneth Waters, eds. 2006. *Scientific Pluralism*. Minneapolis: University of Minnesota Press.

Kincaid, Harold, John Dupré, and Alison Wylie, eds. 2007. *Value-Free Science? Ideals and Illusions*. Oxford, Oxford University Press.

Koskinen, Inkeri. 2010. "Seemingly Similar Beliefs: A Case Study on Relativistic Research Practices." *Philosohy of the Social Sciences* 41 (1): 84-110.

Lacey, Hugh. 2005. *Values and Objectivity in Science: The Current Controversy about Transgenic Crops*. New York: Roman & Littlefield.

Longino, Helen E. 1990. *Science as Social Knowledge: Values and Objectivity in Scientific Inquiry*. Princeton, N.J.: Princeton University Press.

———. 2002. *The Fate of Knowledge*. Princeton, NJ: Princeton University Press.

———. 2004. "How Values Can Be Good for Science." In Machamer et al. 2004, 127-142.

Lowie, Robert H. 1915. "Oral Tradition and History." *American Anthropologist* 17 (3): 597-599.

Machamer, Peter K., and Gereon Wolters, eds. 2004. *Science, Values, and Objectivity*, Pittsburgh: Pittsburgh University Press.

Mason, Ronald J. 2006. *Inconstant Companions: Archaeology and North American Indian Oral Traditions*. Tuscaloosa: University of Alabama Press.

McGhee, Robert. 2008. "Aboriginalism and the Problems of Indigenous Archaeology." *American Antiquity* 73 (4): 579-598.

Mihesuah, Devon A., ed. 1998. *Natives and Academics: Resarch and Writing About American Indians*. Lincoln Nebraska: Univesity of Nebraska Press.

Nicholas, George P. 2010. "Introduction." In *Being and Becoming Indigenous Archaeologists*, ed. George Nicholas, 9-18. Walnut Cree, California: Left Coast Press.

Nicholas, George P., and Alison Wylie. 2009. "Archaeological Finds: Legacies of Appropriation, Modes of Response." In Young and Brunk 2009, 11-55.

———. 2013. "'Do Not Do Unto Others…': Cultural Misrecognition and the Harms of Appropriation in an Open-source World." In Scarre and Coningham, 2013, 195-221.

Pullman, Daryl, and George P. Nicholas. 2011. "Intellectual Property and the Ethical/Legal status of Human DNA: The (Ir)relevance of Context." *Érudit* 35(1-2): 143-164.

Richards, Michael P., Sheila Greer, Lorna T. Corr, Owen Beattie, Alexander Mackie, Richard P. Evershed, Al von Finster, and John Southon. 2007. "Radiocarbon Dating and Dietary Stable Isotope Analysis of Kwäday Dän Ts'ìnchí." *American Antiquity* 72 (4): 719-733.

Richardson, Alan W. 2006. "The Many Unities of Science. Politics, Semantics, and Ontology." In Kellert et al. 2006, 1-25.

Rorty, Richard. 1991. *Objectivity, Relativism, and Truth*. Cambridge: Cambridge University Press.

Scarre, Chris, and Geoffrey Scarre, eds. 2006. *The Ethics of Archaeology: Philosophical Perspectives on Archaeological Practice*. New York, Cambridge University Press.

Society for American Archaeology. 1996. "Principles of Archaeological Ethics." *American Antiquity* 61: 451-452.

Wylie, Plurality of Pluralisms
2015

Scarre, Geoffrey, and Robin Coningham, eds. 2013. *Appropriating the Past: Philosophical Perspectives on the Practice of Archaeology*. Cambridge: Cambridge University Press.

Sperber, Dan. 1982. "Apparently Irrational Beliefs." In *Rationality and Relativism*, ed. Martin Hollis and Steven Lukes, 149-180. Cambridge, Massachusetts: MIT Press.

Thomas, David Hurst. 2000. *Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity*. New York: Basic Books.

Ubelaker, Douglas H., and Lauryn Guttenplan Grant (1989). "Human Skeletal Remains: Preservation or Reburial? ." *Yearbook of Physical Anthropology* 32: 249-287.

Watkins, Joe. 2000. *Indigenous Archaeologies*. Walnut Creek CA: AltaMira.

Weeks, Kathi. 1996. "Subject for a Feminist Standpoint." In *Marxism Beyond Marxism*, ed. Saree M. Makdisi, Cesare Cesarino, and Rebecca Karl, 89-118. New York: Routledge.

Whitt, Laurie Anne. 1998a. "Cultural Imperialism and the Marketing of Native America." In Mihesuah 1998, 139-171.

———. 1998b. "Indigenous Peoples, Intellectual Property and the New Imperial Science." *Oklahoma City University Law Review* 23 (1-2): 211-259.

Wilson, Angela Cavender. 1998. "Grandmother to Granddaughter: Generations of Oral History in a Dakota Family." In Mihesuah 1998, 27-36.

Wylie, Alison. 1999. "Science, Conservation, and Stewardship: Evolving Codes of Conduct in Archaeology." *Science and Engineering Ethics* 5 (3): 319-336.

———. 2003. "Why Standpoint Theory Matters: Feminist Standpoint Theory." In *Philosophical Explorations of Science, Technology, and Diversity*, ed. Robert M. Figueroa and Sandra Harding, 26-48. New York: Routledge.

———. 2005. "The Promise and Perils of an Ethic of Stewardship." In *Embedding Ethics*, ed. Lynn Meskell and Peter Pells, 47-68. London: Berg Press.

———. 2012. "Feminist Philosophy of Science: Standpoint Matters." Pacific APA Presidential Address. In *Proceedings and Addresses of the American Philosophical Association* 86 (2): 47-76.

———. Forthcoming (2014). "Cognitive/Social Norms in Community Based Collaborative Research." *Philosophy of Social Science: A New Introduction*. N. Cartwright and E. Montuschi. Oxford: Oxford University Press.

Young, James O., and Conrad G. Brunk, eds. 2009. *The Ethics of Cultural Appropriation.* Oxford: Wiley-Blackwell.

Zimmerman, Larry J. 1989. "Made Radical By My Own: An Archaeologist Learns to Understand Reburial." In *Conflict in the Archaeology of Living Traditions*, ed. Robert Layton, 61-68. London: Unwin Hyman.