

tured by the political order (*polis*) to potentiate as the *good life* while also being excluded as *mere life*, the life shared with animals and other entities in the kingdom of the living.⁷⁴ The threshold of biopolitical viability thus opens in two directions. Somatechnics, as a frame of reference in which body+milieu+means-of-becoming are constantly trading places and trying on each other's clothes, has the capacity to render the human nothing more than a local instantiation of more fundamental processes under special conditions. If transgender looks back to the human with the goal of making it something else, somatechnics faces a posthuman future.

In these repeated trans-movements across the cut of (in)human difference, we find a potential for agential intra-action through which something truly new, something queer to what has come before, begins to materialize itself.

AN INDIGENOUS REFLECTION ON WORKING BEYOND THE HUMAN/NOT HUMAN

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The multiple projects within my knowledge production repertoire are constituted of threads of inquiry woven and looping in multiple directions, away from and back into the growing fabric. A new project always begins inside the coming together of another. It is thus difficult to name discrete research efforts. But let me attempt to describe a few of them as they might cohere under the label “queer (in)humanisms.” Although to be clear, from an indigenous standpoint, my work should not be seen as queering indigenous practice. Rather it should be seen as a twenty-first-century indigenous knowledge articulation, period.⁷⁵ I produce knowledge in concert with other indigenous thinkers both inside and outside the academy with the goal of supporting expanded notions and practices of indigenous self-determination. This is not to say that all indigenous thinkers will agree with my particular indigenous knowledge claims. We are diverse thinkers. On the other hand, my intellectual work might be seen to queer whitestream disciplinary thinking and ontologies in the United States.

My work, which is also newly intelligible within a “queer inhumanisms” framework, stretches back to 1994–2001. During those years I worked as an envi-

ronmental planner and policy specialist for US tribal governments, national tribal organizations, and federal agencies on projects related to waste management at the federal nuclear weapons complex. In addition to funding technical and policy work related to nuclear waste cleanup, the Department of Energy had begun funding human genome mapping research around 2000. The indigenous peoples' research institute I worked for at that time won a DOE grant to facilitate workshops with tribal program managers and community members to assess the implications for US indigenous peoples of human genome mapping. Via work related to remediating contamination of nonhuman communities by humans during the Cold War, I stumbled into forms of inquiry that I continued in graduate school and which involved "purity" and "contamination" narratives involving not "the environment" but human bodies and populations.

Of course my new fields of inquiry related to human genome research on indigenous peoples' bodies cannot sustain a separation between human and non-human. But at that moment in 2000, I saw myself shifting from working on projects related to human-on-less-privileged-human and human-on-nonhuman relations (the contamination of tribal communities and their lands by white-controlled corporations and federal facilities) to a project related to the objectifying and exploitation by a more powerful group (scientists and colonial universities and federally funded researchers) of a set of less powerful humans (indigenous peoples) in the course of human genome research. I remember being confused as to why and how I was making such a transition. I was terribly fascinated with the mapping of the human genome and implications for indigenous peoples. Perhaps, I asked myself, I was not sufficiently directed or committed in my previous work as an environmental planner? I wanted to be a committed environmental thinker, a form of work that combined both pragmatic, sometimes approaching activist, sensibilities with scientific and theoretical knowledges. Perhaps I was a humanist (human exceptionalist?) after all. Doubts in hand, I could not stop myself from taking what I thought was a new intellectual path. But from my vantage point in 2014, I see but one circuitous path through multiple intellectual cultures and communities to arrive at a place where the line between human and nonhuman becomes nonsensical. I work at these complex intersections.

1. The coconstitution of human genome diversity research concepts and practices with concepts of race, indigeneity, and indigenous governance of science. This is my longest-standing project and resulted in a monograph, *Native American DNA: Tribal Belonging and the False Promise of Genetic Science*, published in September 2013 by the University of Minnesota Press. The book treats the politics of race and "population" that

inform contemporary genome research on indigenous populations, particularly how different parties (scientists themselves, DNA test consumers, and family tree researchers) use DNA concepts to rescript concepts of Native American identity and history. The book ends with a look at how Native American tribes and Canadian Aboriginal peoples have sought to govern genome science research, thus producing some of the world's most innovative bioethical interventions. I also advise multiple scientists and biomedical ethics centers on genomics and indigenous peoples' governance. I hope to expand my advising work to indigenous communities that are grappling with DNA testing for enrollment and with potential genome research involving their citizenries. I recently advised, for example, the Constitutional Reform Committee of the Red Lake Nation (Red Lake Band of Chippewa Indians) in Minnesota. In addition to the book, this research has also resulted in a half-dozen peer-reviewed publications and several policy commentary and op-ed pieces. In addition, I have presented several dozen talks on this research at universities and science museums; at humanities, social science, and genome science conferences; and to indigenous governance and genome policy audiences in the United States, Canada, Australia, New Zealand, and the UK. I have also done nearly two dozen media interviews on radio and television in the United States, Canada, Great Britain, and Sweden.

2. Pipestone materiality and relations. Ceremonial pipes—called “peace pipes” in US popular culture—are sacred to Dakota, Lakota, and Nakota peoples (often called “Sioux”). Pipes and other objects are carved from pipestone, or “catlinite,” as it was named by science, a soft yet durable stone that is deep red in color. Indigenous carvers have longed viewed the quarries in southeastern Minnesota as a prime source of the stone. In 1937 the US National Park Service created Pipestone National Monument in response to white settler encroachment on the quarries. Today, the US Park Service governs quarrying at the site, allowing only Native Americans belonging to federally recognized tribes to quarry there. It also operates a visitors' center with public access where Dakota carvers of pipes and other objects demonstrate their skills for park visitors daily.

My previous work on the cultures and politics of Native American DNA research paves the way for an examination of pipestone, a material with, as I describe below, legendary status as an artifact of “blood” of a people. A shared narrative, that of the vanishing or dying Native, has framed the response to mul-

tiple literal and figurative bodies—indigenous bodies, the land, and the indigenous body politic—by the state. Like bioscientists in the twentieth and twenty-first centuries with their imperative to bleed indigenous peoples before it was too late, a nineteenth-century Euro-American painter and early twentieth-century geologists and government agents saw the place where the red stone lies as an artifact of a waning culture and time. They produced a “National Monument” to conserve it. US Park Service pamphlets from the Pipestone quarry represent pipes as artifacts, as craft objects, and detail the history of white incursion in the area and the regulatory response of the US government. They also reference the site’s geologic uniqueness. Such regulatory and material histories are important to our contemporary understanding of the Pipestone site.

But like producing indigenous biological samples that come to stand for living peoples, making monuments and doing science risk deanimating the red stone. From a Dakota standpoint, the pipestone narrative is one of renewed peoplehood. A flood story tells of the death of a people and the pooling of their blood at this site, thus resulting in the stone’s red color and its description as sacred. The stone is sometimes spoken of as a relative. Unlike with blood or DNA, pipestone does not possess a cellular vibrancy. Yet without it, prayers would be grounded, human social relations impaired, and everyday lives of quarriers and carvers depleted of the meaning they derive from working with stone. Just like indigenous people who insist on their continuing survival and involvement with their DNA, indigenous quarriers and carvers, medicine people, and everyday people who pray insist on living with the red stone daily. And they make decisions—some of them seen as compromised—about how to best work with the vibrant objects of their attention. Just as some indigenous people agree to engage in research or commercial activities related to DNA, others sell pipestone jewelry and craft pieces to earn a living while also holding the stone and pipes carved from it as sacred. In this research, which I have just begun, I investigate via archival research, interviews, and participant observation in the visitors’ center and in the quarries (I am a member of a federally recognized tribe) the extent to which the blood red stone and indigenous relationships with it have been frozen in time or facilitated in more lively ways by both the state and by indigenous peoples’ ongoing engagement with the site into the twenty-first century. The book produced from this research will engage the Pipestone site and the stone itself from multiple standpoints and narratives: indigenous, regulatory, and scientific.

3. Indigenous, feminist, and queer theory approaches to critical “animal studies” and new materialisms. The Pipestone project is set within this broader research agenda in which I have recently begun to theorize in the

area of indigenous, feminist, and queer theory approaches to animal studies and the new materialisms. In 2011 I co-organized with the Science, Technology, and Society Center at UC Berkeley a symposium on indigenous and other new approaches to animal studies, an already critical field in which thinkers dismantle hierarchies in the relationships of “Westerners” with their nonhuman others. I was also part of another UC Berkeley symposium in 2012 on the new materialisms where I did a talk on the role of indigenous thought. Both symposia helped mark a space for the role of indigenous thought in these related and burgeoning areas of contemporary social theory and new ethnographic practices. They also helped network me with other scholars who likewise see the advantages of inserting indigenous thought and practices into these academic conversations. The recent move to “multi-species ethnography” applies anthropological approaches to studying humans and their relations with nonhumans—beings such as dogs, bears, cattle, monkeys, bees, mushrooms, and microorganisms. Such work is both methodologically and ethically innovative in that it highlights how organisms’ livelihoods are coconstituted with cultural, political, and economic forces. But the field has starting points that only partially contain indigenous standpoints. First of all, indigenous peoples have never forgotten that nonhumans are agential beings engaged in social relations that profoundly shape human lives. In addition, for many indigenous peoples, their nonhuman others may not be understood in even critical Western frameworks as *living*. “Objects” and “forces” such as stones, thunder, or stars are known within our ontologies to be sentient and knowing persons (this is where new materialisms intersects with animal studies). Indigenous approaches also critique settler colonialism and its management of nonhuman others. These and other newer approaches clearly link violence against animals to violence against particular humans who have historically been linked to a less-than-human or animal status.

4. Indigenous thought and the politics of nature and sexuality. Following conversations with critical animal studies and new materialisms scholarly communities, I have most recently become interested in the overlap between constructions of “nature” and “sexuality.” This includes a foray into “queer ecologies” literature (which will increasingly inform my graduate teaching) that queers environmental scholarship and, conversely, greens queer theory. I throw into the mix a greening of indigenous queer theory. As I challenge Western politics of nature, it has become clear that I cannot avoid a similar analysis of sexuality. Nature and sex have both been defined according to a nature-culture divide. With the rise of scientific authority and management

approaches, both sex and nature were rendered as discrete, coherent, troublesome, yet manageable objects. Both are at the heart of struggles involving ideas of purity and contamination, life and death, but which only scientifically trained experts or rational subjects (read historically white, Western men) have been seen as fit to name, manage, and set the terms of legitimate encounter. There are common challenges to democratizing the science and representations surrounding both concepts. Again, indigenous thought has something to offer. I plan to conduct humanities-based and ethnographic inquiry around this topic. I am interested in how indigenous stories—I may start with Dakota stories—speak of social relations with nonhumans, and how such relations, although they sometimes approach what we in the West would call “sex,” do not cohere into “sexuality” as we know it in Western modernity. Our traditional stories also portray nonhuman persons in ways that do not adhere to another meaningful modern category, the “animal.” They feature relationships in which human and nonhuman persons, and nonhuman persons between themselves, harass and trick one another; save one another from injury or death; prey on, kill, and sometimes eat one another; or collaborate with one another. Our stories avoid the hierarchical nature-culture and animal-human split that has enabled domineering human management, naming, controlling, and “saving” of nature. I expect that such theoretical work in indigenous environmental and sexuality studies will link back to support applied thinking about how to democratize environmental science practices and regulation in much the same way that my social theoretical work around the genome sciences links back to applied thinking on how to construct new bioethical frameworks that incorporate indigenous thought, both “traditional” and “modern.”

5. Constituting knowledge across cultures of expertise and tradition: indigenous bioscientists. With National Science Foundation (NSF) funding, in 2011 and 2012 I conducted anthropological fieldwork with indigenous bioscientists to examine how they navigate different cultures of expertise and tradition, both scientific communities and tribal communities. I also focus on scientists-turned-regulators and other policymakers in government agencies and in professional organizations who act as culture and policy brokers between indigenous and scientific knowledge communities. I am particularly interested to see if there are cross-fertilizations of genomics and indigenous knowledges and values as the field and laboratory are made more diverse. Do new research questions, theories, methods, and governing arrangements emerge when indigenous peoples act as researchers and not simply as subjects?