Under the Earthlodge: Extraction of the MHA Nation

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Under the Earthlodge: Extraction of the MHA Nation

By

Jacqline Wolf Tice

A Thesis

Presented to the Graduate and Research Committee

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UNDERNEATH THE EARTHLODGE: EXTRACTION OF THE MHA NATION
JACQUELINE WOLF TICE

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Abstract

Since 2008, oil and gas extraction on Ft. Berthold Indian Reservation, North Dakota, has brought economic benefit for some, but not without externalized costs, for the Mandan Hidatsa Arikara Nation. Extraction industry practices create stress, which can translate to poor health outcomes. The modern extraction ethic propagated by the normalization of extraction industry practices conflicts with the land ethic implicit in traditional cultural values associated with sacred places. This research explores how the “benefits” of extraction industry practices (wealth, pride) negatively impact sociocultural and self-reported stress as cultural values (reciprocity, trust) are disrupted. This research uses qualitative and quantitative methods to analyze, interview and survey data. In this sample population, stress correlates strongly with Land Ethic dissonance and Extraction Industry Practices satisfaction indices and suggests the need for more culturally relative study of tribal member stress. Policy interventions fostering community participation in planning, decision-making and evaluation are proposed.
Chapter One
Introduction

THE MANDAN, HIDATSA AND ARIKARA tribes of North Dakota, according to their ancestral origin stories, have occupied the north central part of the United States since “they were created” (SHSND, 2016). Fort Berthold Indian Reservation (FBIR) is the homeland of this collective tribe, known by its federally recognized name, the Mandan Hidatsa Arikara (MHA) Nation. The MHA Nation is referred to locally and in some formal documentation as the Three Affiliated Tribes (TAT). The two terms (MHA, TAT) are used interchangeably in this thesis. The words Native, Tribal, Indian, Native American and Indigenous refer to what is commonly understood in governmental sectors as American Indian/Alaskan Native (AI/AN) Peoples. The MHA Tribe functions as a sovereign nation in a legal “trust” relationship with the U.S. Government (USG), meaning that through treaties, acts of Congress, laws and executive orders enacted for the purpose of securing Tribal land, resources and cooperation, the USG has legal duties to Indian tribes under which it “has charged itself with moral obligations of the highest responsibility and trust toward Indian tribes” (BIA, 2016). The trust relationship has been broadly foundational in legal challenges and congressional decisions regarding sovereignty,\(^1\) fiduciary duties,\(^2\) and resource management\(^3\) throughout the history of the USG-Indian relations.

While this thesis examines historical and political influences upon the current social, environmental and cultural issues facing the MHA Nation as they navigate their collective role in an unprecedented oil boom, the intent of the research is to provide a lens whereby the

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\(^{1}\) See the Indian Tribal Justice Support Act of 1993, 25 U.S.C. Secs. 3601-3631

\(^{2}\) See Cobell v. Norton, 240 F.3d 1081 [D.C. Cir. 2001]

\(^{3}\) See Federal Oil and Gas Royalty Management Act of 1983
effects of extraction industry practices (EIP) at FBIR can be witnessed on a continuum of values – from concrete/functional to ideal/conceptual – as it impacts tribal members’ health, environment and cultural perspectives.

Problem Statement

North Dakota’s first conventionally-drilled well began producing crude oil in 1951, just south of Williston, ND (Wells, 2106) where the present day Bakkan oil boom is centered. Conventional drilling is the technique of vertically boring into the earth until oil or gas is “struck” and the extraction process can commence. The oil boom in North Dakota has created a type of 21st century “Gold Rush” in which there are literally thousands of oil wells and tens of thousands of people who have clamored to this once-stark and economically depressed landscape in an effort to increase their wealth. The harshness of the North Dakota climate has sent many back from where they came. But, many have stayed and the migration of populations has bought with it a complex matrix of competing interests and cooperative mechanisms that have provided great benefit for some and great burden for others.

In 2008, this modern boom arrived at Ft. Berthold, 60 miles east of Williston, with just 30 oil wells, but quickly added 100 wells in 2009 (Wood, 2014), and by 2015, over 1300 wells yielded the MHA nearly $250 million in tribal tax revenues (Davies, 2014) from oil and gas drilling on reservation lands. While the highest economic benefits of oil and gas revenues is limited to a small percentage of individuals, as of March, 2016, 15,013 tribal members (both on and off reservation) receive some benefits from the MHA Nation through an bi-annual disbursement ($1,000 per tribal member over age 21) from The People’s Fund.
The People’s Fund is an investment policy of the TAT Tribal Business Council and is meant, for tribal members, to be a “source of revenue long after the last barrel of oil is taken from our lands” (MHA, 2014). Although extraction industry practices (EIP) have provided expanded economic benefit for the MHA Nation as a whole, this prosperity has come with costs. Development of the Bakkan oil reserves under the cultural home of the MHA Nation – the metaphorical “Earthlodge” – introduced a way of life that is unsettling, at best, for some and is directly harmful to others. Externalized social, economic and environmental costs to the reservation population include increased traffic, population growth, truck noise, light pollution, inflated housing prices and food costs, sharp rise in crime rates, human trafficking, drug overdoses, and toxic pollutants in the ambient environment and waterways. Most of the extraction wells on FBIR use the unconventional hydraulic fracturing (fracking) method, which allows for greater access to the shale oil by inserting 1-2 mile long horizontal pipes.\(^4\) Known risks associated with fracking include environmental exposures to airborne toxic chemicals (benzene, volatile organic compounds, particulate matter) as well as ground and surface water contamination (toluene, heavy metals) (Kovats et al, 2014; (Finkel, Hays, & Law, 2013; McDermott-Levy, Kaktins, & Sattler, 2013).

The largest town on the reservation and home to BIA headquarters for the MHA Nation – New Town, ND – saw a 148% increase in traffic, mostly from diesel trucks passing through town transporting oil or water for fracking wells (NDDOT, 2014) before a bypass road routed truck traffic around the town beginning in late 2014. In addition to extreme social costs, the potential health effects from EIP are considerable. Respiratory health risks, based on proximity to traffic, are exacerbated in children with asthma (Brown et al, 2012

\(^4\) Descriptions of this process are extensive in the literature. See e.g. Howarth 2011; Jackson, et al 2014; Vengosh 2016
(Bernstein, 2012). The Health Effects Institute Panel (2010) concluded that living close to busy roads appears to be an independent risk factor for the onset of childhood asthma. Cardiovascular risks to elders increase from high concentrations of diesel truck traffic due to elevated levels of particulate matter (PM$_{2.5}$) (McDermott-Levy, et al, 2012) and black soot as well as CO emissions. In-utero fetuses are especially at risk for congenital heart defects, which are increasing linked to maternal exposure to particulate matter (Zhang, 2016). To date, there have been no formal studies specifically measuring the physiologic impacts of years of increased traffic exhaust on vulnerable populations in New Town, ND.$^5$

Compromised stability of socioecologic factors and resources  (Lin & Ensel, 1989) is associated with stress-induced increased cortisol levels, which can translate to higher rates of cardiovascular disease, and other chronic diseases  (Trasande, Malecha, & Attina, 2016). Research shows stress exerts a significant but moderate influence on wellbeing  (Lin & Ensel, 1989; Thoits, 2010). Stress, and its relationship to extraction industry practices at FBIR, is traced in this study. Positive correlations in this research between stress, land ethic and extraction industry practices infer risks to health status as a result of governance decisions associated with EIP. The impact of stress in these multiple sectors is addressed by policy prescriptions at the end of this thesis.

**Mapping the Research**

The research methodology of this study includes both quantitative and qualitative research. Surveys were returned by 30% (19/60) of the respondents who answered

$^5$ This thesis had intended fill that gap by evaluating secondary health data from pre-EIP timeframe of 2004 through the 2015 to document physiological changes in the aforementioned vulnerable populations (children, elders, pregnant women) since EIP began on FBIR. However, as I address in Chapter 6, epidemiological data availability for the FBIR population was not available.
statements on a Likert scale addressing EIP on FBIR and its effects on physical wellbeing, environmental impacts, sociocultural factors, expectations, expectancies, and decision-making (policy) processes. For evaluative purposes and to improve validity of data interpretation, the questions were sorted and assigned thematically to one of four specific scales/indices, developed to test for and evaluate cultural values disruption (CVD-6), land ethic dissonance (LES), policy satisfaction (PSI) and extraction industry practices satisfaction (EIPSI). As well, Cohen’s Perceived Stress Scale (PSS-4) and the Somatic Symptom Scale (SSS-8) were administered to establish correlations between indices. In-depth interviews were conducted with 8 MHA Nation tribal members on a voluntary basis to further explore the context of answers given on the survey. The survey questions detect cultural values as conceptual and contextual phenomenology, and alight internal and external disturbances to those values as disruption, dissonance, or dissatisfaction. Disruption is revealed by detection of cognitive dissonance between traditional MHA cultural values as represented by concepts such as land ethic, reciprocity and trust associated with communalism in MHA tribal societies and clans (Bowers, 1965; Fenn, 2014; Murray, Zedeño, Hollenback, Grinnell, & Crows Breast, 2011), and what is referred to in this thesis as extraction ethic values, driven by explicit exploitation of natural resources, greed and self-interest. Interviewees include those who have allowed drilling leases on their land and therefore, receive more financial wealth, and those who have not allowed drilling leases on their land and therefore, do not receive more financial wealth.

The impact of physiological effects and socioecological consequences of the extraction industry on individual and collective wellbeing of the MHA Nation are mitigated or exacerbated by the psycho-cultural support mechanisms unique to their culture. For
example, in the creation stories and spiritual ceremonies of the MHA Nation, the Missouri River and Thunder Butte are considered sacred places of ancestral continuity. These sacred places provide the context of Traditional Knowledge that, for indigenous tribes whose place-based lifestyles rely on access to Traditional Knowledge and practices, the loss of access to, or recognition of, these places can become an irreplaceable public good. Sacred places impacted by EIP, and the modern extraction ethic propagated by the normalization of EIP, creates tension with the land ethic implicit in the traditional cultural values of the MHA Nation. This ethic will be explored in detail in Chapter 4.

This research explores questions of whether the “benefits” of extraction industry practices (exploitation, pride, consumption) correlate to negative sociocultural and self-reported stress impacts in MHA Nation members because of an imposed disruption of traditional cultural values (reciprocity, trust, communalism). How do tribal members’ self-evaluations of physiological impacts correlate with disruption of cultural values? Can an instrument to determine potential or actual cultural values disruption be applied as a mechanism for designing policy that is culturally relevant?

In this sample, PSS-4 scores correlate strongly with Land Ethic and Extraction Industry Practices Satisfaction indices and suggest the need for a more comprehensive study of specific spheres of tribal member stress – economic, social, physical – which may be relieved by policy interventions.

In Rich Indians, Harmon (2010) provides ethnohistorical research on bi-cultural acculturation values and assimilation strategies in a discourse frame of Indian-White relationships vis-à-vis economic ethics. By highlighting “enterprising Indians” (2) from the
17th century Powhatans through 20th century tribal casinos ventures, Harmon clarifies the colonialist conceptual expectation of Indians as “poor savages” not to be trusted, yet who are tempted and susceptible to human desires for prestige and influence, whether in Settler-Indian commodities trading or within Indian Country (82). This understanding can open access to intrinsic bias associated with economic development in Indian Country and specifically, as it relates to the MHA. While acknowledging that wealth is a human invention, how wealth gets defined is culturally specific (6). This concept is explored and illustrated in this thesis through multiple quotes from interviewees who question how MHA values have been shaped and misshapen through adaptation and assimilation as exposure to wealth has increased. As the conceptual context of economic sovereignty distorts and disrupts the ecological and land ethic implicit in the patterns of the cultural psyche, we can better understand the tipping point at which tribally-sanctioned defacement of the sacred (land, water) occurs (we can assume vis-à-vis adoption of extraction ethic values). The adoption of these misshapen values are analogous to Ruth Benedict’s (1934) assertion that, “If we justify war, it is because all peoples always justify the traits of which they find themselves possessed, not because war will bear an objective examination of its merits” (32).

Understanding and evaluating these internal components and external mechanisms may provide a framework by which policies of energy development on Indian land may be implemented with a goal of least disruption to cultural continuity and historical preservation.

The decision making process of the MHA Nation is significant in both its culturally historic and modern contexts because these participation systems reinforce (or redact) values. In the case of the MHA, and most of Indian Country, governance structures and policy process were replaced by proxy-U.S. constitutional governance systems through the 1934
Indian Reorganization Act (IRA). A formerly intact trust relationship with traditional tribal structures and leaders became threatened with the adopted Tribal Council format. This thesis asserts “trust,” as a differentiated cultural characteristic of the MHA, is under threat by the extraction industry’s trans-generational impact on the cultural integrity of the MHA Nation. Its impact has the potential to equal that of the 1953 forced removal of 80% of the families of the MHA Nation when the U.S. Army Corps of Engineers’ (COE) built the Garrison Dam on the Missouri River, displacing tribal members to higher, less productive land by flooding their agricultural subsistence lifestyle and condemning reservation towns to the bottom of Lake Sakakawea. Some tribal members consider the Garrison Dam a historical trauma the tribe is still recovering from (Wirfs-Brock, 2015; Murray, et al., 2011). This research echoed this assertion.

Outline

The objectives of this research are:

1. Test my method that impacts of the extraction industry can be measured by determining levels of cultural disruption.
2. Use secondary data to document physiological health changes since extraction industry practices began on Ft. Berthold Indian Reservation. (see supra note 5)
3. Test the hypothesis that the extraction industry has disrupted the cultural identity of some MHA Nation members and created a disruption of cultural values of the MHA Nation by introducing conflicting values such as commodification of the earth (extraction ethic) offset by financial benefits.
4. Test the hypothesis that tribal members’ self-evaluation of physiological impacts correlate with disruption of cultural values.

Chapter 2 will provide historical information about the MHA Nation, including creation stories, which provide a point of analysis of relationships with White Persons (settlers, colonialist military, documentarians) dating back to the 18th century. This analysis provides a sociocultural tone sketch of the MHA Nation as friendly, open, trusting, and helpful to White Persons. This general tone may be responsible for the enthusiasm of the MHA Tribal Council to invite EIP onto reservation lands. By contrast, the Turtle Mountain Band of the Chippewa Indians, whose reservation is located in Northeastern North Dakota, still within the scope of the Bakken Formation, resolutely rejected drilling on their reservation. Their case provides a reference point for alternatives to being “agreeable” to EIP as a means of economic sovereignty. A future separate study with the Turtle Mountain Band, to measure cultural disruption, may provide further insights informing policy. Chapter 3 describes key policies affecting the MHA regarding land use and resource exploration, as well as the decision making process used by the present day MHA Tribal Council (MHA-TC), tribal members participation, and the historic Clan System of the MHA Nation. These contrasting or complimentary mechanisms explain MHA Nation member’s sense of frustration with policy processes, and account for the high degree of dissatisfaction found in the Policy Satisfaction Scale. Chapter 4 discusses the history of the extraction industry in North Dakota and with the MHA Nation. The corrupt origins of EIP on Ft. Berthold are presented in detail here to illustrate unchecked cultural disruption ex ante in a particular Tribal leader who, it appears, put personal gain above tribal ethical responsibility, which has
led some tribal members to expect unjust policies. A review of the methods and findings of this research will take place in Chapter 5. Chapter 6 offers Discussion and analysis of these findings, including a critique of why culturally relative ethical constructs do influence respondents’ policy-related responses, and by extension, policy preferences. Policy Implications is the final chapter, which applies the knowledge of this study to prescriptions for both the MHA Tribal Council and MHA members-at-large. The thesis concludes with a personal Closing Statement.  

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6 This thesis is written in the third person – “this research,” “this researcher” – narrative style. The author wishes to stay “out of the way” as much as possible and let this work be about the MHA People. A thesis is inherently subjective, and there are instances of personal observation, but it is kept to minimum until the final statement.
In keeping with a culturally relative approach to this research, this section includes both published archival archeological accounts of the history of the MHA pre- and post-reservation occupation, and, when available, historical narratives collected in this research with living MHA Nation members, who offer contextualized interpretations within a post-colonial framework and experience.

Creation Narrative

All cultures have origin or creation stories, which some call myths, that conceptualize and construct meaning and identity for that culture’s people. Campbell says, “Myths are a clue to the spiritual potentialities of human life” (Moyers, 1988). They also contextualize lived experience. It is known the oral tradition of storytelling has been a principle component for embedding moral and transactional principles in both Westernized and Indigenous cultures, and that thematic elements direct both content and intent within those myths. Duality - life/death, light/darkness, good/bad, soul/body - is a universal and common theme in many creation narratives (Levi-Strauss, 1967). For Native tribes, the opposition theme between “good and bad” twins is fully developed in creation myths of the Iroquoian-speaking peoples – Huron, Seneca, Oneida and Tuscarora (Leeming, 2010). For the Mandan and Hidatsa, First Creator and Lone Man represent this dyad through a decisive co-creation of the world, which foreshadows, in the view of this researcher, not only the required cooperative “giving” nature of their shared tribal identity, but also foretells the “split” of the Ft. Berthold Reservation by Lake Sakakawea, post-Garrison Dam. What follows is a condensed version of this story, taken chiefly from accounts by Bowers (1934,
1950), whose anthropologic and ethnographic field work with the MHA Nation in the early 20\textsuperscript{th} century is required reading for any serious student of Plains Tribes. Following that, the origin story of the Hidatsa coming from the water – usually thought of as Devil’s Lake – is challenged by an elder. It is being recorded here to contextualize for the reader the MHA’s important relationship to water, which is being directly impacted by the effects of colonization and the EIP on FBIR.

*The land was chiefly under water. First Creator was alone and wandering by himself. He thought that he was the only one when he met another person named Lone Man. They discussed their origin.*

*Lone Man thought he came from the western wheat grass, for in tracing his tracks he saw blood on the grass, and that his father was the Stone Buffalo, an earth-colored wingless grasshopper. First Creator did not know who his father and mother were but he thought he had come from the water. The two men disagreed over who was older, so Lone Man stuck his staff in the ground while First Creator lay down, turning into a Coyote. Lone Man left and when he returned years later, he found scattered bones. When he grabbed the staff, First Creator came back to life and was declared the older. They decided to make the land inhabitable and seeing a…mudhen (duck) [asked how it could survive, and the mudhen] said there was earth at the bottom of the water. They instructed it to dive down and bring up some mud to show them. When the duck succeeded, Lone Man and First Creator divided the mud and from it, First Creator made the lands on the west side of Missouri from the Rockies*
to the Ocean, with mountains, coulees, cliffs and buffalo, and he made Heart Butte. Lone Man made his east side flat, except for a little Hill north of the present Town of Bismarck, ND. He made spotted cattle with long horns and wolves. First Creator caused the people who were living below to come above, bringing with them garden produce. They continued to come up until the vine they were climbing broke when a heavy pregnant woman was climbing it.¹

The Story continues to tell of the first Pipe, sacred tobacco, bands and villages, and important symbolism (thunderbirds, snakes) represented in the Clans and Societies of both the Mandan and Hidatsa. In checking with an Hidatsa elder about the last part of this story, the informant commented:

_I know that some other people on the Rez of course will probably sneer at me and not really go along with me and think that I’m sadly mistaken, but

Mandans, you know, what we call Awakdaba which we say, the Hidatsa’s say they came out of the mouth of the River. Asdaba means “mouth of the River.”

When they talk about it, they say they were climbing up a vine. This heavy woman broke the vine and she climbed up, but I think it’s - what you call – a metaphor. I think it’s trying to explain something and trying to make it into something that is understandable. But it’s something that actually happened there. I know my grampa used to talk about that. He didn’t talk about Fort Totten – Devil’s Lake. [In the east, where the story is commonly believed to

¹ See Bowers’ Hidatsa Social and Ceremonial Organization and Mandan Social and Ceremonial Organization
have taken place.] What he talked about - the body of water that they were
talking about – was the Gulf of Mexico – around that area. Because the
Mandan came with the Corn and the Corn is only from South America. And it
took the Hidatsas and the Mandans about 50 years to mature that corn, so
today we can grow it in May and have it in September you know.” (2016
interview, female elder)

This elder has clearly thought about the origin stories of the Mandan and Hidatsa
from the place of water, and is proactively shifting the cultural narrative to
accommodate her empirical knowledge base, which includes anthropological and
archeological evidence regarding the origins of Corn, believed by most historians to
have been domesticated 7,000 years ago in the Tehuacan Valley, Mexico, and traced to
the high valleys of the Andes, Chile and Argentina (Gibson & Benson, 2002) and then
spread throughout North America. Bowers (1950) records Scattercorn’s version of
the Mandan-Corn People relationship:

The Corn People were living under the ground by a lake. One day
some of the people saw an opening reaching up to the land above,
and there was a vine growing in this hole. They asked Fox to climb
up and see this land. The Sun burned his nose. They then asked Elk
to go up and dig the hole larger so people could get through. The
people started up, following the vine. They came up continuously for
four days, but on the last day a woman heavy with child broke the
vine and ended the migration forever. All these people had been
raising the corn on this land beneath the earth. There were four leaders—three brothers—Good Furred Robe, Cornhusk Earrings, Uses His Head for Rattle—and a sister named Waving Corn Stalk, who began laying our villages and fields. They laid the lodges in rows like corn. They assigned family garden plots and distributed corn, beans, squash and sunflower seed to each family. The Sun dried the air and the corn wilted but the sister sang holy songs and the corn plants revived four different times. One day, men appeared on the opposite side of the bank and the Mandans called them Miditadi (Hidatsa). The Hidatsa crossed the Missouri, but soon realized their customs were quite different. They agreed to go up River and camp, but Good Furred Robe first gave them seeds from the corn, saying, “My friend, you can take the tip or the butt.” The Hidatsa took the tip, the best part, and went up on to build their village at Knife River. (Bowers, 1950, 195)

The Arikara, on the other hand, believe that they were originally given the “Mother Corn,” a spiritual manifestation of corn sent to earth as a woman, by the Chief Above, to lead the Arikara out of the underworld and to provide food and assistance (Parks, 1996). The personification of Corn as “Mother” is told by the late Alfred Morrisette, Sr., an Arikara singer, speaker, and storyholder:

One day a holy man was examining an ear of corn and he called to his wife to make the corn a dress and shawl because “it just appears I am seeing a woman.” After the corn was wrapped in the clothes, the holy
man made her a relative and threw her into the Missouri River. Later,
a woman no one knew came to the people and the man saw her
wearing the dress and shawl his wife had made. She said, “The Big
Holy One in the Sky – he is the one, the one you call Father. He is
your Father. But you are mine. I am the one, your Mother.

These stories provide an historical basis for the conceptualization of cultural values among the MHA. Cultural values are considered later in this thesis within two separate frameworks. One is the functional/contextual and the other is the idealized/conceptual. Evidence from this sample’s surveys and interviews supports this categorization as relevant to the lived experience of the MHA. As well, these stories can serve to administer a sense of relationship to place, which is the basis for the concept of land ethic. It will be shown that a positive correlation exists between this sense of place - expressed in land ethic – and dissatisfaction with extraction industry practices among the MHA in this sample.

HISTORICAL

Of The Missouri

The Mandan, Hidatsa and Arikara say they come from the Missouri River Valley or, depending on the specific origin story, another close by body of water. This is mostly historically consistent with migration patterns evidenced by archeological sites and anthropological accounts indicating that a sequence of emergent (literal and figurative) forces compelled first, the Hidatsa, then the Arikara, to venture to the Upper Missouri where they found the Mandan. (see Figure 1.)
Historians assert the three tribes traveled from different geographical paths to the region.

The Mandan migrated from southern Minnesota to South Dakota in about 900 A.D. and then up the Missouri ca. 1150 – 1400. The Hidatsa (sometimes called Minnetarees, Big Bellies or Gros Ventres) arrived in the Missouri Valley from the east, from around Devils Lake, as three different groups. First were the Awatixa, who settled upriver from the Mandan sometime between 1400 and 1550; and then the Awaxawi followed, whose villages were nearer to the Mandans. In about 1650, it appears the largest group, Hidatsa Proper, arrived at the Missouri, settling to the north of the others. It should be said that the Crow and Hidatsa are considered of the same tribal origin, having had a split, which eventually resulted in the Mountain Crow and River Hidatsa emerging as different tribes (Bowers, 1965; SHSND, 2016). It is widely accepted that they are relatives. The Arikara (Sanish) are thought to have journeyed north along the Missouri River for more than 200 years, eventually joining with the Mandan villages around 1800. Linguistically, the Mandan and Hidatsa languages are Siouan (Crow, Lakota, Dakota, Assiniboine, Osage) while the Arikara language is a Caddoan linguistic type (Pawnee, Wichita, Skidi, Waco). Language groupings give clues to the geographic history of

![Map of Mandan, Hidatsa, Arikara Migration](http://www.ndstudies.org/resources/IndianStudies/threeaffiliated/maps.html)
tribes. There is evidence all three tribes used Earthlodges for primary dwellings.

Earthlodges (see Appendix A) were between 30-60 feet in diameter, built of thick wood posts (four main central and up to sixteen outer posts) and then layered in a circle around the outer foundation with lighter poles, willow branches, sticks, dry grass and a two-to-three foot thick layer of earth. Traditionally, women design, build and “own” the earthlodge. It is home. Considered a “permanent” and sound structure, it required no killing of animals (unlike hides necessary for tipis), and both heated and cooled efficiently due to the insulated earth design and long “hallways” leading to the outer door. The fire pit was centrally positioned (with “adjustable” smoke opening above) for burning biomass including bison dung. A partitioned area could be used for drying and there was a 3-4 foot underground cache pit for food storage. Reports are varied, but there are estimates from village sites along the Missouri and firsthand reports from LaVerendrye (1738), Mackintosh (1773) and Thompson (1797) of earthlodges in 9-14 villages on either bank of the Missouri River, numbering in the hundreds (Bowers, 1965). Mandan populations were said to be between 12,000-15,000 (Fenn, 2014) before the massive scourges brought by disease. The Missouri River Indian tribes were successful and noted agriculturalists, fluent in trade and in “hospitality,” and this part of the river was known as a “Marketplace of the Central Plains” (SHSND, 2016); also called the “Heart of the World” (Fenn, 2014). The Missouri River was a major trading route and steamboats were destined there as well. The trading of meat, corn, hides and fur pelts by tribes was met with cloth, metal implements, and glass beads from the Europeans. This extra-tribal trading was a hallmark of the Indian people along this route, and contributed to their reputation as living “happily and prosperously.” The “agreeable” nature and openness of the MHA was a characteristic trait, this researcher asserts, which was integral and a
contributing factor to the tribes’ vulnerability to multiple “assaults” by the forces of colonization. Unlike the famously combative Lakota to the south, the Mandan/Hidatsa were essentially cooperative in nature. Bowers (1965) writes of the “reciprocal obligations and duties” (103) between relatives as well as villages “unifying” and “social[ly] integrating populations” (77). The Arikaras formed “kinship ties with nonrelated individuals through ritual adoption” frequently “extended to traders and other whites” (Parks, 1996, 93). These relationships were the basis for, according to Bowers (1950), “restricting warfare and promoting trade” (44). Reciprocity and trust as characteristics became functional and conceptual signifiers of the MHA Nation.

The first smallpox epidemic to hit the Missouri River valley came in 1782.

**First Contact**

The first known recorded accounts of the Mandan came from the French trader, Sieur de la La Verendrye, in the fall of 1738. McKenzie visited the Mandan in 1772 and Louis and Clark came in the Fall of 1804. The story of the Louis and Clark Corp of Discovery launched the national consciousness of the MHA because Sacagawea (as her name is popularly spelled), the Shoshone woman living with the Hidatsa at the time Lewis and Clark first came to them, was a guide and translator for the famous explorers across the western mountain ranges and frontier, to the Pacific Ocean and back. George Catlin, who visited in the spring of 1833, painted many of the familiar images of the Okipa ceremony of the Mandan. Maximilian, Prince of Wied-Neuwied, spent the winter months of 1833-34 among the Mandan and historians consider his accounts highly reliable. Bodmer accompanied him and contributed to posterity the familiar and notable depiction of the famous chief, Four
Bears. Interactions with Europeans meant exposure to other ways of life and increased world knowledge for the MHA, but it also meant threats of disease.

Two devastating rounds of smallpox hit the Mandan, Hidatsa and Arikara villages along the Missouri in 1837 and 1838. The Mandan lost 90% of their population, the Hidatsa lost 50%, and the Arikara, already having endured the scourge multiple times, moved together with the Mandan and Hidatsa to Like-A-Fishook Village up river to the north, and later, to Fort Berthold, where they combined resources and intermarried.

19th-20th Century MHA

![Figure 2: Land Cessions by the Three Tribes](source: North Dakota State Government, ND Studies, [link](http://www.ndstudies.org/resources/IndianStudies/threeaffiliated/maps.html))

A more contemporary picture of the MHA emerges from the period 1850 onward, as the mechanisms of USG interference and oppression begins to push west with the discovery of gold in 1848 and aggressive expansion for control over land and resources.

The MHA were included in the first Fort Laramie Treaty of 1851, where the Three Tribes territory was defined as consisting of 12,618,301 acres. This acreage is reduced multiple times over the following 40 years as can be seen in the Figure 2 map.
In 1870, by Presidential Executive Order, the Fort Berthold Reservation is established. In the process, the MHA lose 7,833,043 of the over 12 million acres considered their territory. In yet another territorial reduction, the final blow comes by an Act of Congress passed May 15, 1886, ratified in 1891, providing for the allotment of the tribal land base. (This and other Acts of Congress will be discussed further in Chapter 3.) The U.S. Government obtained the agreement of the tribes to relinquish lands, and over half of the reservation was ceded, leaving just 965,620 acres. The tribes were paid $80,000 annually for 10 years “for their civilization and education.” Although the communities of Beaver Creek, Charging Eagle, Elbowoods, Independence, Lucky Mound, Nishu, Red Butte, and Shell Creek were gradually settled along the Missouri River during this time, it only takes another generation before devastation and relocation is again cast upon the MHA by the construction of the Garrison Dam at FBIR.

**Garrison Dam(ned)**

The Garrison Dam was part of an extensive energy and flood control plan of the USG that included the Missouri River Basin. The Army Corps of Engineers (COE) devised the Pick-Sloan Plan, which called for five major flood control dams on the main stem of the Missouri River, and over 100 small dams on its tributaries. The first dam was built at the Mandan Bluffs near Garrison, ND and called for a lake 200 miles long and 200 feet deep. Lake Sakakawea caused the flooding of 152,360 acres of MHA primary agricultural land, along with villages, homes, burial grounds, medical and educational facilities, commercial timber sources, wildlife habitat, and irreplaceable flora. The separation of the MHA from their spiritual and cultural birthplace - the Missouri River - and their ancestral way of life has
caused generational trauma. According to Meyer (1977), as early as 1943, tribal representatives resisted the proposed dam, and appealed to their rights as guaranteed by the Treaty of Fort Laramie, arguing, “We have permanently located on these lands, and our forefathers also have lived on these grounds and it is the hopes and plans to have our children and their children to occupy this land continually forever; and money or exchange for other land will not compensate us for the land, landmarks, and other sentimental attachments” (Murray, Zedeño, Hollenback, Grinnell, & Crows Breast, 2011). Despite their pleas, construction began in 1946, and in 1949, the tribe signed a final $7.5 million agreement as compensation for the displacement, even though the loss was independently assessed at over $20 million (MHA, 2016). In 1954, the flooding began. This devastation resulted in 80% of the population relocating to upper prairie land with unsuitable soil for their subsistence agricultural lifestyle. In total, eight communities – Elbowoods, Red Butte, Lucky Mound, Nishu, Beaver Creek, Independence, Shell Creek, and Charging Eagle – were moved. Some members spoke of this in interviews:

> You know people talk about our homelands...everybody was upset about getting moved here. Nobody considered it their home because it wasn’t. It was a terrible place. I mean, I remember my grandparents talking about their house getting moved from the Riverbottoms and that---just getting moved to where there was no water and it was windy and there was no shelter and they were moving them on top of the hills and they [Corps of Engineers] would just put their house wherever they wanted to. So that was --- it’s not our homeland. It is mine but it wasn’t theirs and
they were sad about it. And I’ve heard stories about it all the time. (2016 interview, female business owner)

And, an elder remembers her life before the flood…

I was a big kid, I think, already, when the lake, when the water came. It was 1954, 1955, but we had to leave Elbowoods – that’s where I went to school- Elbowoods - They call it isha buke hisha – like an Elbowwood – looks like an elbow – liken to an elbow you know. That town was called. It’s where those agents sat. It’s where they had that agency. They had a boarding school there where everybody went to school. You had that or you had to go to school off the Reservation and that was called Boarding School. My dad didn’t want us to go and they built that log house, you know, near that school. We could go to school and go home at night. So we stayed at Elbowoods and then after school was out, then we went back into the country and stayed in the country over the summer. Then in the fall, we would come back into Elbowoods.

I was like about maybe 1st grade, 2nd grade, when the flood came.

R: Oh, really?

A: So we had to leave there and…moved to a place called Van Hook and that’s where I went to school.

R: In Van Hook? And they had a boarding school there too?

A: No, no, no. Van Hook is a White town. There was not too many Indian kids there so it was pretty hard. I didn’t really know how to
speak in English so we had quite a struggle (laughs) to understand what the teacher was trying to teach us.

R: Oh, yeah...

A: So it was pretty hard. I think that’s in 1954, 1955 – around that time – when most of the Indian, the Hidatsa People stopped speaking Hidatsa because we, the ones that had struggled in the early days of the Garrison Reservoir, the parents that were parents at that time, did not want their kids to go through the same struggles that we went through. So when they had children, they just started speaking to them in English although they all knew Hidatsa. It’s not like we didn’t. Because before that, back in the 1940’s, Elbowoods was like the last stronghold of the Hidatsa language cause nobody spoke English there. Everybody spoke Hidatsa. And if you spoke English, everybody would kind of look at you like you were a foreigner. (laughs) You know what I mean. Sit up and stare at you because they don’t understand and they don’t understand why you are doing that here. So before that, before then, they – everybody – spoke Hidatsa there. When you went to visit – and you could visit for about a week or so you know, you can stay with somebody, and [they’d] take care of you and feed you. In those days too, it was really bad wintertime when we had that high snows. The doors were left open so if you lived in the country and you went, try to make it to your house, but you couldn’t make it, and you would stop at a house – even if they weren’t home – the door was open so you would go
in there, start a fire, cook a meal, and sleep there a couple nights if you have to. But you clean everything up for them. Clean their house up and leave it the way you found it.

(2016 interview, elder woman)

This elder, by casually telling the story of the effects of the Garrison “Reservoir” on her life, has provided evidence that the relocation/dislocation of the MHA, driven by “development” of infrastructure without proper consultation or support services to tribes, may be the most influential factor contributing to the loss of Hidatsa language continuity. The Arikara and Mandan languages are also endangered, exacerbated by the same mechanisms of colonization, although a modern language reclamation project is presently underway at FBIR. The participant in the above account has also illustrated the inherent characteristic of “trust” within the cultural milieu of the MHA; clearly there exists an assumption and expectation of a common ethos of integrity, fairness, and reciprocity (“the door was open...leave it the way you found it”).

The flooding caused by the Garrison Dam began decades of lost revenue, poverty, mental anguish and loss of cultural context as the Missouri River, the “heart” of the MHA, was now replaced by Lake Sakakawea, a manmade, quasi-spiritual body of water – in many ways, a proxy for what it has erased. Lake Sakakawea now encompasses sacred ancestral places, once living spaces, of MHA culture and those waters are regarded as both a barrier to previously accessible cultural sites and a persistent source of remembrance. (Murray, et al., 2011)

The relocation/displacement narrative, forced upon the MHA is consistent with other conquest policies by the USG against tribes dating back to the 1830 Indian Removal Act by
Andrew Jackson, which legitimized ethnic cleansing by removing 46,000 indigenous people from their homelands east of the Mississippi. Their removal gave 25 million acres of land “to white settlement and to slavery” (Toensing, 2013) in order to advance the colonial agenda of expansion and development. For the MHA, the relocation away from the river and bottomlands reinforced familiar neocolonialist patterns of poverty, increased sickness, distress, social fragmentation and dependency on government resources for the next 50 years.

An effort to claim recompense for the suffering endured by the MHA as a result of the Garrison Dam began in 1985 when the Garrison Unit Joint Tribal Advisory Committee (JTAC) was established by the Secretary of the Interior. The Missouri Basin project affected not only Ft. Berthold TAT but also the Standing Rock Sioux Tribe (SRST), whose reservation land along the Missouri River was selected as another dam site by the Pick-Sloan Plan. Similar challenges and damages were thrust upon the Dakota with the creation of Lake Oahe. (At present, Lake Oahe is ground zero for Indigenous rights efforts to protect the water from the Dakota Access Pipeline (DAPL) plan to construct an oil pipeline under the lake.) The JTAC studied the impacts of the dams on the respective tribes and determined the Tribes of the Standing Rock and Fort Berthold Indian Reservations shouldered an inordinate share of the cost of implementing the Pick-Sloan Missouri Basin Programs’ mainstream reservoirs (MHA, 2016). In 1992 Congress passed Public Law 102-575, a settlement of $142.9 million granted to the MHA for education, social welfare and economic recovery. The SRST received $90.6 million as part of the same settlement. It is important to understand that these settlements are not lump sums, nor are they without specific legal conditions. The U.S. Treasury “holds” the funds to accrue interest, which is not dispersed for another five years; 43 U.S.C. §3504 states,
(4) The Secretary of the Treasury shall deposit the interest which accrues on deposits to the Three Affiliated Tribes Economic Recovery Fund in a separate account in the Treasury of the United States. Such interest shall be available, without fiscal year limitation, for use by the Secretary of the Interior, commencing with fiscal year 1998, and each fiscal year thereafter, in making payments to the Three Affiliated Tribes for use for educational, social welfare, economic development, and other programs, subject to the approval of the Secretary. No part of the principal of the Three Affiliated Tribes Economic Development Fund shall be available for making such payments. (U.S. Government Publishing Office, 1992)

Beyond the Myth

...the problem is there was no accountability within the tribe. There’s no mechanism set up where there’s checks and balances that if an issue arises, there’s a mechanism in place that focuses on that problem area and devises a plan to address it.

(2016 interview, female elder)

According to some MHA members, when the MHA began receiving the interest revenue from the JTAC settlement in the late 1990’s, the “myth” of tribal trust began to erode. According to informants, corruption and debt became evident after the interest funds were dispersed and accountability for the money, which members “hoped” would be invested in infrastructure, roads, healthcare, housing, and education, was, somehow, lost in the bureaucracy. “There are so many needs...[you hope] something good comes out of it”
(Wolf Tice, 2016 interview, female elder). It is apparent some have lost trust in the process and the tribal council:

...tribal governments were formed by coercion – by design – from the federal government. They’re not ours and they’re not to benefit us. Their interest serves the United States Government. Tribal Councils are extensions of that. It takes a very strong, aware, independent woman or man to see that on the Tribal Council. But when they cross over that threshold where they’re now in that office, and they have that money coming in every two weeks, and they’re surrounded by a cadre of their friends, who they’re paying, and everyone’s telling them, “You’re doing real good” and nobody can get to them unless your filtered in, they kind of start leaning the other way. And pretty soon, your concerns are not received. It’s like “What’s she talking about?” “Why is she talking that way?” “We’re doing everything we can. We’re helping everybody”.

(2016 interview, female elder)
Community participation, a type of contemporary policy process, is a popular concept in academic, environmental and small organizational spheres where progressive institutional entities emphasize broad democratic principles and justice-driven inquiries to ensure transparency and equity in distribution of goods and services. The act of participation by community actors in decisions affecting policy serves as an ethical check on the process in several ways. On one hand, this type of process can be thought of as an extension of purposeful (or substantive) rationality, what sociologist Max Weber called wertrational – values-informed goals – meant to drive policy shaped to the requirements of all parties. It is rational in that reason is determined on a philosophical basis, not a material one. Within another context, this type of policy process can also be thought of as Kantian for two reasons: 1) Persons are treated with dignity, as ends in themselves, not as a means to an end and, 2) As rational beings, we are required to act within the Moral Imperative, which says we cannot act in ways which we would think of as wrong if that same action were performed by another (Beauchamp, 1999). Community participation in policy process provides a strong “checks and balances” system by allowing for varying needs and viewpoints to be expressed and explored. These are two strong and non-oppositional reflections on the ethical qualities of community participation as a mechanism for policy development.

To explain why a particular policy is important to a group or culture, we must understand their values. Clark (2011) argues, “The term value is used in the policy sciences without any metaphysical, ethical, or other connotation, so that this usage differs from its everyday meaning” (26). This lucid observation holds insights at myriad levels of
application when confronting the task of developing policy. Policy, when designed ideally, is culturally relative and relevant (*wertrational*), a *completely* metaphysical and ethical concept. Institutional, social and personal values take on distinct context and attachments to form, which can be, to some degree, collectivized as “wellbeing, wealth, power, respect…” (27), etc., however, the translation of any policy from its base of values has the obligation of *performing ethically*. By defining the values of a community, and addressing them via policy, it follows that a *contextual* and *conceptual* social equilibrium will emerge.

We have seen the evolution of ethical policy design vis-à-vis frameworks addressing Human Rights, Social and Environmental Justice, Health Equity, Employment, Disability, Marriage and Sexual Identity in both international and domestic spheres.¹

Design, though, is not just a noun; it is a verb. The *process* activity by which policies are created, implemented and evaluated becomes a point of follow-through to ensure the principles of ethical process.

Societies have norms that determine the *process of design* and these norms are generally predetermined by ideology and/or culture. When describing policy mechanisms applying to the MHA Nation as an entity of its own design, we observe a clear distinction between inherent Indigenous policy process and the imposed/adopted/colonial form “offered” to the MHA-TC by the USG as a means of “recommended” governance, an easily-implemented, pre-tested, orderly assimilation structure predicated on a values base which is, as Clark describes, “without metaphysical or ethical connotation.” The MHA have altered

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¹ An annotated listing of relevant USG policies and UN Conventions is included in the appendix of this thesis.
these structures over generations, perhaps as an act of co-Indigenizing, but the basic form of public governance by which Tribal Councils function, is Westernized.

U.S. policies, themselves, toward Indian People, are in another universe devoid of substantive rationality or morality, as defined by Weber, Kant and Clark in this chapter. The remainder of this section describes MHA policy mechanisms pre- and post-colonization, and will critique USG policies having directly impacted the capacity of the MHA to ensure governance structures aligned with their cultural identity.

Clan Systems and Societies

In order to faithfully provide a conceptual framework of the decision-making process (policy process) for the MHA Nation as a whole, the distinct variations between the Mandan, Hidatsa and Arikara tribal identities must be acknowledged and secured. This is the subject of volumes in historical, anthropological and ethnographic literature by researchers, scholars and writers with much more proficiency, and who have taken years to accurately convey this information and, in some cases, sacred knowledge. This thesis does not afford the space or scope necessary to undertake such a deserving exploration. What is provided is a brief review of general governance structures within the tribes, and some description of the relevance of the most important aspects of these, including roles within the clan structure.

The word governance is used at times to imply the general polity as well as policy mechanisms recognized as part of the decision-making process. The word “bundle” is used in this section and refers to, in Indigenous tribal contexts, a very specific collection of sacred objects – e.g. feathers, skins, rattles, skulls, stones, cloth, herbs, pipes – which are activated

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2 Co-Indigeneity is a wholly original term developed in this research to describe the contextualization of imposed colonial tools of modernity. It varies from acculturation or assimilation in that it asserts Indigenous Sovereign ideology into pre-established patterns of social organization.
through an assigned ceremony to invoke certain spiritual powers associated with that bundle. The secondary sources for clan information are the MHA Nation history website, Bower’s seminal books on Mandan and Hidatsa Social Organizations and Parks’ Myth and Traditions of the Arikara. Personal affiliation with the MHA also informs this section. Present tense is employed here out of respect for living customs.

*Mandan*

For the Mandan, tribal leadership consigned according to the hierarchy of bundle owners. Two “chiefs” are selected – one by his “warrior” strengths and one who is primarily attentive to ceremonial functions of the tribe. They are from different clans, thereby contributing role-specific qualities to their positions. They cooperate at key junctures in decision-making. Warrior capacity is developed only after a male has been through fasting and vision rituals. Thirteen Mandan clans originally exist, but nine become extinct from the scourge of disease, so there are four today. It is said Lone Man created clans to prevent marriage between relatives. Clans hold property within the tribe, so bundles, robes, and the like are handled by clan members “owning” those things. In a ceremonial context, this is an especially important function, as certain clans have the responsibility for performing ceremonies, like the Okipa, considered critical to the survival of the tribe. It is the clans who are responsible for the elders and are expected to gift them with meat as a sign of respect. Societies are gender specific, such as the Black Mouth Society for men, which enforces
rules; and the Goose Society and Buffalo Cow Society for women, which hold special affinities with the plants and agricultural endeavors.

**Hidatsa**

The Hidatsa governance system is slightly more complex system during the pre-colonial period. Of the three villages - Hidatsa Proper, Awaxawi, and Awatixa - the Awatixa village held collective ownership of the Waterbuster and Knife bundles and those particular clans are of high status. Chiefs and councils exist in villages but also a Council consisting of all three villages comprises the main decision-making body of the tribe. Four men are assigned to “protect” the four directions of the pre-colonial village through ceremonies, a position equal to the dual-chief positions and council members. The council varies in size with decisions. The Black Mouth Society is kept informed of all decisions of the council. Age and experience are considered high status goods, and command respect, and each village council member is encouraged to speak. Any chief can call a council meeting merely by preparing a feast for its members. The council includes the population at large without regard to original village origin and all “households” can offer opinion. Consensus is sought and idealized, but not always successful.

**Arikara**

In the Arikara tribe,chieftaincy is a hereditary position in which the petitioner must be a lineal descendant through the male line. Other types of “chief” status can be achieved through acts of bravery, leadership and
sacrifice. The medicine priest, also a lineal-male hereditary position, serves as mediator between the spirits and people. There are twelve original bands within the Sahnish, each consisting of a chief and three sub-chiefs. Chiefs are chosen for their characteristics of wisdom, selflessness and honor. A chief makes decisions for tribal movements, hunts, order within the tribe and hospitality toward outsiders. Upon the death of any chief, men of the tribe gather at an honoring feast, where the first chief of each band holds the right to make a speech and nominate a candidate for the vacant position. If no votes are cast, the chief is chosen by consensus.

Whether stemming from hereditary rights, achievements by deed, or honored character traits, the primary governance structure among the MHA, within its original tribal context, consisted of chief and councils, and was driven by dialogue, spiritual guidance, cooperation and participation by the People. The characteristic of trust in the governance structure (the process) and selected leaders represented as a strong and important value.

Current Tribal Council Governance

When the 1934 Indian Reorganization Act (IRA) was promoted as the Indian “New Deal,” (Dunbar-Ortiz, 2014) and passed by Congress, its goals were to promote economic development and land restoration for the tribes, provide for organization of tribal governments, and aid in tribal civil and cultural rights (Deloria, 2014; Fixico & Fixico, 2011; Harmon, 2010; SHSND, 2016). The Act (also known as the Howard-Wheeler Act) was enacted under the leadership of John Collier, who was Commissioner of Indian Affairs from 1934-1945, as a direct response to the 1928 Miriam Report, which documented the
impoverished economic and social conditions on reservations since the 1887 Dawes Act (Deloria, 1985; Dunbar-Ortiz, 2014). The IRA was meant to end the selling off of Indian land into allotments and to introduce more self-government/Sovereignty mechanisms into the Indian-USG relationship, including the right of tribes to incorporate. It offered to tribes a new “legitimized” governance mechanism - a version of the “model” (Nelson & Sheley, 1985) U.S. Constitution. Considered by some to be a continuation of the paternalistic policies of the USG by introducing new ways to assimilate tribes into Westernized models of governance, education and resource management, critics insisted the Act launched “Tribal Councils structured [like] corporate boards and empowered to sign off on mineral leases…” (Churchill, 2002). A total of 181 tribes voted for the IRA and 77 tribes rejected it.

In November 1934, the MHA Nation did vote to adopt the IRA and proceeded to draw up a constitution and bylaws, formally enacting it with a corporate charter passed in 1937. The original structure of the charter included the “Council of Ten,” a tribal-based decision-making body used by the MHA pre-IRA. However, in 1961, the MHA changed their constitution to the Tribal Council format by which representatives from the six reservation segments were elected locally, and the election of a tribal chairman was held at large. In 1982 another constitution change gave authority to the Tribal Business Council (TBC) to exercise decision-making jurisdiction over the reservation and its people (SHSND, 2016).

The present MHA-TC functions as the TBC with various committees – Education, Natural Resources, Health and Human Resource, Economic Development and Judicial Committee/Human Resources. TBC members fill the three-member committees. As of this writing, one member is on all six committees, one member sits on three committees, three
members sit on two committees, and two members sit on one committee. The MHA-TC is, by all appearances, a six-member representational government, much less participatory than managerial. According to an MHA Nation member, “Our government system doesn’t work. We have to have checks and balances” (Wolf Tice, 2016 interview, employed male). Others expressed concerns with the level of qualifications required to be part of the TBC, “Now the chairman makes $75/hr and the Council representative makes $70/hour. No education. Our council rep only has a GED”. (female activist). Another insisted,

... there’s a lack of delegation...I think they should all have a cabinet of experts with people under them cause, you know, some of the councilman are experts in one spot but they won’t know this other area and they should have an advisor there...I mean, there are good ones, smart ones, but we’re all not experts in everything and this is our government.

(2016 interview, female elder)

The Dawes Act and Fractionated Land

The 1887 General Allotment (Dawes) Act was one of the most destructive acts of legislation ever perpetrated against Native tribes. It allowed for the fractioning of reservation lands by assigning land allotments in 40, 80 or 160-acre parcels to individual tribal members, which the USG then held in trust for 25 years before “allowing” individual Indians (by declaring them “competent”) any autonomy over the land. These “trust” or allotment lands cannot be taxed by the individual states. The Dawes Act was an aggressive legislative tool for undermining tribal identity, which is historically communal and based on shared
economy. Theodore Roosevelt hailed the Dawes Act as the “mighty pulverizing engine to break up the tribal mass” (Deloria, 1985). The GAA allowed the USG to sell off the “surplus” land (not assigned to individual Indians) to white settlers. These lands are called fee lands and can be taxed by the state. Effectively, the GAA created a checkerboard of ownership on what was originally provided to tribes for cultural continuity and sustenance – in fact, the land was guaranteed by treaties as Sovereign Indian land. *(Except for that device called the Plenary Clause, explained later in this section.)* Fractionated land is the hallmark of the Dawes Act. After an individual tribal member was declared “competent” and wanted to sell some acreage for food or supplies, the land sales were often low-balled to benefit white settlers, thereby reducing further the land base accessible to tribal members. In addition, the hereditary law of allotted land allowed for 2% of unclaimed land (not claimed or assigned to heirs upon the death of an individual allotment holder) to automatically be absorbed by the USG, not by the Tribes to be held in Trust. That land could then be leased by the USG or the white settler to whom it was sold for commercial purposes with no consideration of Tribal interest or protection. By 1934, Indian tribal land in the U.S. had gone from 135 million acres to less than 50 million acres. Over 90 million acres of Indian land was lost to the GAA.

While this thesis is not specifically targeting colonialism per se as an agent of determinism for the present situation at FBIR, there are several ways in which it is implicated. Colonialism evolved over the course of hundreds of years through policies designed to assure the extermination of Indian culture and systematic elimination of Indian land. This is the assimilation strategy which was waged against Native tribes and which advanced the hegemony of Euro-American culture. The intrinsic inconsistencies in a
hegemony which seek to grant Sovereignty while holding land in “trust” is a perfect illustration of what Ruppel (2008) calls “contradictory consciousness” (180). Cultural value distortion and disruption, as cognitive dissonance, exists on a continuum between ideology and reasonable practice. “The most successful hegemonies are…the least irritating for their subordinate subject, bringing forth relatively more compliance than resistance...[where] hegemony is more likely to be felt than thought and ideology is more likely to be thought than felt” (Ruppel, 208, p. 181). Ruppel further asserts that allotment land “delivered earth and place into the colonizer’s world of endlessly replicable, bounded spaces” (100). Not long after the implementation of the Dawes Act, in 1890, then Commissioner of Indian Affairs, Thomas J. Morgan wrote that the “settled policy of the Government” was to “break up reservations, destroy tribal relations, settle Indians upon their own homesteads” thereby dealing not with the Tribes, but with the individuals (Ruppel, 2008, p. 70). Parker (1997) reinforces this, “It is the definition of public good that most often brings tribal sovereignties and the sovereignty of the U.S. state into conflict. But what becomes clear in the longue durée of Native American history in the United States is that the exclusion of Natives from the public good is one of the key constituting oppositions that allowed U.S. sovereignty to develop as it has” (Parker, 2007).

Plenary Power Invites Political Action

The plenary power embedded in the U.S. Commerce Clause in Article I, Section 8, Clause 3 of the Constitution reads,

To regulate Commerce with foreign Nation, and among the several States, and with the Indian tribes.
The policy implications of this Clause have been seen in cases of mineral production and railroad right-of-ways\(^3\) on reservation lands repeatedly. For example, the Cherokee Nation sued the Secretary of Interior, Ethan Allen Hitchcock, from leasing their lands for mineral exploration in a case that went to the Supreme Court. Relying on the Commerce Clause as a basis for plenary rule, the Court maintained,

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\text{The power existing in Congress to administer upon and guard the tribal property, and the power being political and administrative in its nature, the manner of its exercise is a question within the province of the legislative branch to determine, and is not one for the courts. (Cherokee Nation v. Hitchcock, 187 U.S. 294, 1902)}
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The Congress has been given plenary authority over tribal relations from the beginning – meaning, it is a political issue and not a judicial one (Deloria, 1985) and, therefore, required changes in law have required political dissent. Eminent domain qualifies under the Commerce Clause, which is why the Army Corps of Engineers (COE) controls land use on the banks of major waterways within Indian Country. The Dakota Access Pipeline (DAPL) route, currently being contested by the Standing Rock Sioux Tribe (SRST) in North Dakota, is scheduled to begin transporting oil from the Bakkan Formation to Illinois in January, 2017. The DAPL crosses water over 100 times along its 1,172-mile route, posing risks to the water

\(^3\) In Cherokee Nation v. Southern Kansas Railway Co., the Court held that the Cherokees' inherent sovereignty did not exclude the federal government from extending its powers of eminent domain to tribal lands. 135 U.S. 641 (1890).
supply of 17 million people downstream if there are leaks or spills as it passes under the Missouri River and Lake Oahe. However, the lack of an EIS and appropriate consultative mechanisms addressing cultural, environmental and health concerns with the SRST demonstrates gaps in political engagement to secure enforcement of existing laws related to tribal and constitutional rights. The MHA Nation will transport some of its oil through the very pipeline the SRST is fighting against. The MHA-TC has sent a letter of support to the SRST for their efforts to fight the crossing of the DAPL near their tribal lands. How does one Nation simultaneously benefit from and protest the transmission of that same benefit as it affects their “relatives” at the back end? This is an example of land ethic dissonance later explored in this thesis and further illustrates the level of complexities facing tribes who are bound by political leverage associated with a framework of Sovereignty-by-extraction.
Chapter Four
Extraction of the MHA

Extraction on Indian Land

In this thesis, the context of the oil boom on FBIR is viewed through the lens of the socioecological *lived experience* of the MHA Nation. Socioecological approaches consider systems (social, political, economic, organizational, geographic, climatic and religious) within cultures and how their interactions impact physical, societal, and interpersonal environments (Cross, 2011; Oishi & Graham, 2013). Extraction is more than its impacts upon these systems; it is the narrative within a culture that is crucial to socioecological processes and relations, shaping public thinking on ecology, economy and technology, and informing “fetishism and consumption, many of which specifically channel the way we inhabit and use our environment” (Oliver-Smith, 2015). Land as a source of revenue – a *resource* – takes on a particularly specific frame in Indigenous *place-based* cultures.

Resource mining has been a threat to the lived experience of tribes on Indian reservations since the 1870’s and the discovery of gold in the sacred Black Hills of the Lakota (Harmon, 2010). At a time when development of mineral resources was becoming more prevalent throughout its territories, the U.S. Government recognized the revenue potential of opening up Indian land to what was then called “mining,” and what is referred to in this thesis as “extraction.” The 51st U.S. Congress passed the 1891 Act\(^1\) that did just this, adding a previously missing, but important, requirement of tribal consent (Grogan, Morse, & Youpee-Roll, 2011) to explore and exploit resources on Indian land. The Osage Tribe (whose reservation was occupied on Cherokee land) began drilling for oil in 1897 and

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created a steady prosperous enterprise through a series of smart economic negotiations with
the U.S. Government involving retaining subsurface rights (Harmon, 2010). The unique
“trust” relationship between tribes and the U.S. Government has historically mired ownership
of resources and the role of consent of tribes has been an ongoing arbitration factor in USG-
Tribal relations. Protection of sovereignty and of trust lands, in the “best interest” of tribes,
is the mandate of the Federal trust. However, political agendas and paternalistic attitudes
have led to mismanagement of assets. While late 19th and early 20th century allotment lands
have been negotiated and renegotiated, with and without access to subsurface rights, and,
with and without tribal consent, the first act to reserve minerals unconditionally to the tribe
was at Fort Berthold in 19122 (Royster, 1993). Subsequent legislation related to mining for
energy resources, and passed by Congress over the last hundred years3, has brought the MHA
into the 21st century with plenty of knowledge in negotiation. But, whether the wisdom of

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2 “The Fort Berthold allotments here in question were made in the field prior to the passage of the act of June 1, 1910,
and as before stated were not made pursuant thereto. They were regularly scheduled and thereafter submitted to the
Department for approval, and approved for trust patent by this Department (September 16, 1910), all long prior to the
report and classification respecting coal (April 17, 1911) and to the withdrawal order (June 27, 1911) under the act of
June 1, 1910. I am, therefore, of the opinion that these allotments and the departmental approval of the same should stand…”
(DOI Decisions Relating to Public Lands, 1916),

3 These include the (1) Mineral Leasing Act of 1920 (30 USC 181 et seq.), which established the authority of the U.S.
Department of the Interior (DOI) to oversee oil and gas operations on federal land; (2) Mineral Leasing Act for Acquired
Lands of 1947 (30 USC 351 et seq.), which extended the DOI authority over oil and gas operations to federal “acquired
lands;” (3) Mining and Minerals Policy Act of 1970 (30 USC 21 et seq.), which established modern policy regarding
mineral development in the United States of encouraging private enterprise while mitigating adverse environmental
impacts; (4) Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.), which defined the Bureau of Land
Management (BLM) responsibilities with respect to oil and gas development; (5) Indian Mineral Leasing Act of 1938 (25
USC 396a-g), which provides for leasing of minerals on tribal lands; and (6) Indian Mineral Development Act of 1982 (25
USC 2102 et seq.), which provides for tribes to enter into energy development agreements with DOI approval. The BLM and
Bureau of Indian Affairs (BIA), agencies within the DOI, have issued regulations relevant to oil and gas development under
the authorities of these laws; portions of these regulations establish requirements related to environmental protection. Title
Section 2604 is amended to require that the U.S. Department of the Interior (DOI) establish a process by which a tribe can
obtain a Tribal Energy Resource Agreement (TERA) granting authority to the tribe to review, approve, and manage leases,
business agreements, and rights-of-way for energy development on tribal lands. (Office of Indian Energy and Economic
Development, 2016) http://teeic.indianaffairs.gov/Ir/Wcab6b7602257c.htm
that knowledge has been translated and will be ultimately advantageous for the People of Ft. Berthold, is still in question.

Development of the hydraulic fracturing (fracking) process provided the “eureka” momentum whereby access to the Bakkan Formation’s estimated 300 billion barrels of oil (USGS, 2008) turned into a windfall for the MHA Nation. Under the leadership of Tribal Chairman Marcus Levings until 2010 and then, from 2010-2014, the succeeding Tribal Chairman, Tex “Red-Tipped Arrow” Hall, the drilling began in earnest at FBIR in 2008 and progressed at a feverish pace through 2014. The infrastructure of FBIR had neither capacity for, nor was the MHA-TC accustomed to, the revenue stream or the tsunami of socioeconomic impacts that followed when the extraction industry flooded the reservation.

Literature addressing the mining and extraction industry on Native Land over the last 125 years is plentiful (Acosta, 2011; Deloria, 2014; Grogan et al., 2011; Royster, 1993). The process by which Tribes have functioned in real time as a society, and evolved as a culture in the wake of EIP, is not. However, the MHA have been in the spotlight since the beginning of their journey with this industry. The oil boom just west of the reservation near Williston, ND has been called a “modern day gold rush” in film and media reports (Fixico & Fixico, 2011; Marcus, 2014), documenting the influx of population, increased costs of living for locals and transient workers who have travelled thousands of miles to cash in on the employment opportunities, $17/hour Walmart employee starting salaries, man camps, sex trafficking, truck and vehicle crashes and increased drug activity. Since 2006, rural North Dakota annually has had 33% more crash fatalities than the national average. Williams County, ground zero for the Bakkan boom, and neighboring McKenzie County, encompassing the western part of FBIR, have the highest traffic fatality rates in the state.
(NDDOT, 2015). The predominant outside attention to the MHA Nation, though, has been investigations into the questionable dealings of former Tribal Chairman, Tex Hall, and his direct business conflicts of interest, which ended in two murders linked to Hall’s nefarious business partner on FBIR (McDonald & Sontag, 2014). These events have put the MHA in the uncomfortable and undesired lines of sight of reporters, researchers and swindlers, alike, looking to explore or exploit prospective inputs for their respective field interests. Hall’s story is one of the main reasons for the sense of tiredness that has befallen some MHA members who feel embarrassed by outsiders wanting to know more about the effects of the extraction industry on FBIR. As one elder said in an interview, “…people look down on us because of that” (2016 interview, elder woman).

Briefly, Tex “Red Tipped Arrow” Hall was an early proponent of oil and gas development on FBIR. As Tribal Chairman, beginning in 2010, he had the power to overlook or enforce environmental and regulatory standards, which were often lax in the face of expansive revenue for the tribe from oil drilling. Hall coined the phrase, “Sovereignty by the Barrel,” which became a clarion call for tribal independence in light of decades of high poverty, dependence on government commodities and over 50% unemployment on the reservation. While he was Tribal Chairman, Hall was also the owner of a private oil company, Maheshu Energy, and used his influence as a decision maker and power player to profit from drillers on FBIR. In 2012, he worked with a non-Native outsider, James Henrikson, to sublease trucking services, doing business under the name, Blackstone. Henrikson, a 5-time convicted felon (Spotted Bear, 2016), had access to more contracts on FBIR through his relationship with Hall, and, as a result, local Native-owned companies were disadvantaged by Blackstone’s business dealings (Dentons, 2014). Although Hall
eventually ended his partnership with Henrikson, a different male employee of Hall’s
suddenly went missing after an argument over money with Henrikson. In a related incident
soon after, Hall was caught mishandling storage of 200 environmentally unsafe fracking
socks on his private property in Mandaree. This is in direct violation of TAT Environmental
Codes, of which Hall was aware. This incident triggered an investigation into Hall and
Henrikson’s alliance – an association that yielded Blackstone millions in profits (Dentons,
2014) and over $500,000 directly from the tribe’s coffers, which Hall had unilaterally
approved payment of, but, of which Hall withheld disclosure of his conflict of interest from
the Tribal Council. The Tribal Business Council (TBC) enacted emergency policies barring
elected tribal council members from doing business with oil companies. A former U.S.
district attorney was called by the TBC to investigate the relationship between Hall and
Henrikson after news of the 2013 contract killing of a potential FBIR oil investor from
Spokane, WA, was linked to Henrikson. The resulting Dentons Report was published in
August of 2014, and Tex Hall was soon voted out of his Chairman position. Henrikson was
federally charged with two murders-for-hire and sentenced to life in prison (Associated
Press, 2016). The MHA Nation has spent the last two years trying to recover from this literal
and figurative bloodstain on its land, reputation, and spirits. Even though the MHA is
making a recovery from these corrupt dealings, tribal members, according to interviews in
this sample, are still reeling from the experience:

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4 The Dentons Report was conducted by the international law firm in 2014 and looks into the dealings of Tex Hall and his former business partner, since convicted – see [http://newsok.com/article/feed/736782](http://newsok.com/article/feed/736782), and [http://www.grandforksherald.com/news/crime-and-courts/3821321-council-wants-federal-investigation-former-tribal-chair-linked-murder](http://www.grandforksherald.com/news/crime-and-courts/3821321-council-wants-federal-investigation-former-tribal-chair-linked-murder) and [https://static1.squarespace.com/static/53af83f0e4b0e70ca61c2df/t/541ad540e4b0e98b8ca6f191/1411044672122/Investigative-Report+on+Tex+Hall.pdf](https://static1.squarespace.com/static/53af83f0e4b0e70ca61c2df/t/541ad540e4b0e98b8ca6f191/1411044672122/Investigative-Report+on+Tex+Hall.pdf)

It resulted in the review of allegations of abuse of tribal contracts and funds being referred for federal investigation.

5 In 2016, Hall testified in the case against Henrikson, who was sentenced to life in prison. Hall has never been formally charged with ethics violations by tribal authorities and denies wrongdoing.
So I don’t understand how we lost who we are... you have leadership that made decisions for us and who wheel and deal in the oil and gas and who only think of the money right now and don’t think of the aftermath.

(2016 interview, female activist)

Another respondent said,

*The Tribe puffs up its chest and talks about Tribal Sovereignty – “don’t tell us what to do” – thuggish behavior – but in reality, they don’t have the Codes, they don’t have the Law.*

(2016 interview, elder woman)

Hall has defended his altruism and commitment to the sovereignty of the MHA. And others do to. He has been a national champion for Indian political identity for decades, having served two terms as president of the National Congress of American Indians, co-chair of the National Indian Education Task Force and as an adviser to the U.S. Department of Health and Human Services’ first tribal advisory committee. He initiated a class action lawsuit that brought a historic settlement of $760 million for Native American farmers and ranchers. Hall’s accomplishments were acknowledged in 2013 when he received the Wendell A. Chino Humanitarian Award, named for a beloved contemporary Indian Country figure so revered that even the New York Times eulogized Wendell Chino upon his death in 1988. While Chino was a humanitarian for his people, it is well known how he deftly used the
mechanisms that drive colonialism as tools to take his people from “rags to riches,” becoming known for employing what became termed, “red capitalism.” Hall exercised that same approach, which, according to some, may qualify and justify his actions and conflicts of interest while he was MHA Tribal Chairman.

**Bakkan Boom Economic Windfall**

According to the TAT Title 15 Tribal Environmental Codes 2.1.044.3 (adopted January, 2012):

*It is in the Tribes’ interest to foster, encourage, and promote the development, production, and utilization of natural resources of oil and gas on the reservation in such a manner as will minimize and properly manage all wastes resulting from such operations and to authorize and provide for the operation and development of oil and gas properties in such a manner that the Tribal members, landowners, royalty owners, producers, and the general public realize and enjoy the greatest possible good from these vital natural resources while minimizing and preventing any adverse impacts to public health or the environment.*

Oil was first tapped in the state of North Dakota at the Iverson farm in 1951. Less than five miles from there, and within a year, the Bakkan Shale Play, named for landowner, Henry Bakkan, began producing its “light-sweet crude” oil from 10,000 feet below the surface. *(see Figure 3)* Conventional vertical wells were employed with relatively limited capacity until the 1980s when horizontal technology was introduced. The US Geological
Survey estimated 3-4.3 billion barrels are yet undiscovered in the Bakken (Wells, 2016). Those estimates are now upwards of 24 billion barrels of recoverable oil (Cross, 2011). The first oil well in the Bakken Formation on Fort Berthold Reservation was drilled in April 2008 (MHA, 2012). The revenue stream and drilling increased from about 10K bbl/d in 2009, to 170K bbl/day in 2013. The BIA reported MHA tribally owned land oil revenues in 2012 reached $27,707,715 and allotted land revenues on FBIR were $106,665,439 (MHA, 2013). This is a far cry from the MHA pre-drilling estimated annual budget of $5 million (Lustgarten, 2013).
Every binding act or resolution of the TAT Tribal Business Council, the governing body having authority to lease land for oil and gas extraction on FBIR, is documented in each month’s minutes, and publicly posted on the MHA Nation website. (see Appendix C for a sample Resolution.)

Leases for oil rights generally work like this: A drilling company will pay a one-time payment upfront, called a bonus, to ensure its right to drill for oil underneath an acre of land. Additionally, they pay a percentage of the profits earned on the well, known as a royalty. Additional laws apply on Indian lands and determine who can negotiate for whom and how the government has to oversee the agreements (Lustgarten, 2013) An actual typical transaction of a lease, recorded as a “Resolution” in the minutes of the MHA-TC, might read as follows:

“WHEREAS, the Tribal Business Council seeks, by resolution, to formalize its December 22, 2008 action to approve the leasing of 40 acres to Petro Hunt, LLC for oil and gas development on the Fort Berthold Reservation, for the consideration of $500.00 per acre bonus, twenty (20) percent royalty and $2.50 per acre rental for a five (5) year lease,

NOW THEREFORE BE IT RESOLVED, That the Tribal Business Council of the Three Affiliated Tribes hereby formalizes its approval action on December 22, 2008, to lease 0 acres of tribal lands for oil and gas development to Petro-Hunt LLC, for the consideration of $500 per acre bonus. 20% royalty and $2.50 per acre rental for a five year lease.

BE IT FURTHER RESOLVED, That the Tribal Business Council of the Three Affiliated Tribes hereby affirms and ratifies its approval of the lease for
oil and gas development of said tribal trust mineral acreage located within the following:

*T.148 N-R94 W. Section 36 – NWSE  40 acres…”* (MHA, 2016)

Leases average between $50 and $1000 per acre, depending on the tract and the negotiating parties. In the beginning, though, most individual landowners had no sense of the “market value” of land. Neither context nor precedent was yet established. One of the common complaints from tribal members interviewed for this thesis, was that before the oil “hit,” there were “oil runners” (Native and non-Native) conning Tribal members to sign cheap leases to fill the runners’ own pockets and to protect the interests of oil drillers:

...when the leasing situation came out, [my mother] would get these random letters in the mail to sign a lease to so and so, or XTO, or whoever the oil company was, and she has no idea what, where her land was, where her minerals were, where it was even at at, but she’d get X amount of dollars. She was like, “I don’t even know where this is at – I’ll just sign it.” You know, so she was signing $15 leases – because it actually hadn’t hit yet. They weren’t drilling yet. They were just getting all the leases signed so when it got right down to it...with some knowledge...she certainly would have never signed $15 leases. You know with having more information, I’m sure she would’ve done things differently.

(2016 interview, female, self-employed)

And…
We got ripped off just like everybody else. Why don’t you get [X]’s lease and see what [X]’s lease says? It just doesn’t seem right. How come he’s a multi-millionaire and my mom isn’t?

(2016 interview, female activist)

Between 2008 and 2015, over 1300 leases were granted to drilling companies looking to benefit from the Bakkan boom on FBIR. The asymmetrical force of wealth disparity taking place within the MHA community is apparent in the above quote. Unlike the socioeconomic status of tribal members prior to EIP on FBIR, the familiar factors of colonization driving the oil boom and fueled by a likely unconscious cognitive and ethical dissonance, directly upset societal and familial balancing mechanisms, which had been previously secured by cultural continuity.

The assault of EIP upon other indigenous cultures, especially in the Global South, is denoted in literature, by both scholars and activists, with the modernist word, extractivism. The effects of extractivism are correlative to corporate and governmental colonization of Indian land, as Acosta (2011) tells us, “extractivism is a mechanism of colonial and neocolonial plunder and appropriation…exploitation of the raw materials essential for the industrial development and prosperity” (63). The concept of neoeXtractivism describes a decidedly localized or state-controlled aspect to development, but which still allows for the environmental and social ills that accompany the pursuit of capitalistic and consumptive ideology (Ripplinger, 2013). In addition to irreversible environmental damage, some of these ills include wealth disparity/poverty, consolidated power, political corruption, disruption of societal institutional structures and reduced democratic participation (Acosta, 2011). While the MHA Nation, and indigenous cultures in general, want to benefit from the public “goods”
of having control of tribal resources vis-à-vis the concept of “Sovereignty by the Barrel,” it is misguided to imagine that public “ills” of such pursuits are not its likely outcomes. Further, it speaks to an internalized locus of colonization and assimilation (neoextractivism) within tribal government officials who adopt these practices of colonialism as a substitute or representation for what is true sovereignty. Through extractivist/extraction practices, and the ethical constructs upon which they are based, the Doctrine of Discovery is being invoked to include the metaphorical blood (water) and plasma (oil) of the Mother Earth. The MHA-TC, in its efforts to secure the financial future of the tribe, is perhaps mistaking this framework of development as the only means of obtaining public goods.

In June 2015, the first official MHA 100% tribally-owned oil production company, Missouri River Resources (MRR), began operating at FBIR (Holdman, 2016). The royalty rate return is over 26% as opposed to the common 18% for outsider oil production (Holdman, 2016). This entrepreneurial venture localizes more of the revenue from drilling, which translates to tribal jobs and economic benefit in the community. In addition, MRR has teamed with the San Juan College of Energy and the FBIR-based Nueta Hidatsa Sahnish College to offer an associate degree program in the field of oil industrial studies, such as petroleum production operations, industrial processing, instrumentation and controls, occupational safety, and industrial maintenance mechanics (Holdman, 2016). Building the capacity of tribal youth is another step in the right direction of utilizing EIP resources to advance the sovereignty of the tribe. However, the temptation of more and more revenue from EIP still threatens the land and culture of the MHA as a byproduct of imposed extractivist values or, what is called in this thesis, the Extraction Ethic. Scott Momaday, Kiowa Pulitzer Prize winner for Fiction, speaks of traditional indigenous knowledge
possessing the essential understanding of the earth as vital, “a spiritual dimension,” of which it “follows logically that there are ethical imperatives in this matter” (Callicott, 1989).

**Extraction Ethic: Land Ethic Dialectic**

According to Annas (1993), “nature gave us the starting point for ethics” (Gillroy, 2000, 135). Gillroy (2000) argues that because nature is a functional entity predating humanity, it “persist[s] and evolves (131),” and by its functionality, we humans, as moral agents recognizing this value, are required to activate our duty [ethical obligation] to ensure its Ecosystems are “protected, empowered, and allowed to persist over time” (132). It is important to clarify the philosophical basis of protecting nature parallel to the indigenous cosmological and relational framework. Somewhere between the Greeks and Enlightenment, Western Civilization became removed from the concept of panentheism – realizing the Divinity (the common thread) extent and intent of nature – and, instead, keeping with the development of scientific analysis and Pythagorean quantification, adopted a grossly misshapen conceptuality of Nature as a literally materialized expression of atomic particles without intrinsic value (Callicott, 1989). Callicott explains this chasm between the interactive ecosystem function found in Leopold’s ecological theory, for example, vs. the theory of functional component biological species, as a continuation of the philosophical theory of ideas advanced by Plato, which, when combined with the empiricism of Aristotle’s biological “material atomism” (183), and further fused with Judeo-Christian themes of man’s dominion over nature, have led to an isolating, nonconsequentialist understanding of nature.

Each individual or specimen “participated,” according to Plato,
in a certain essence or form and it derived its specific characteristic from that form in which it participated. The various species are determined
by the static logical-mathematical order of the formal domain and then the individual organisms, each with its preordained essence, are loosed into the physical arena to interact clumsily, catch-as-catch-can. Nature is thus perceived, like a room full of furniture, as a collection, a mere aggregate of individuals of various types, relating to one another in an accidental and external fashion…it is possible radically to rearrange parts of the landscape without the least concern for upsetting its functional integrity and organic unity. (Callicott, 1989, 183)

Such minimalist projections of biotic relationship assert a form of environmental determinism as the basis for function and teleology of Nature. The modernist extraction ethic stems from this construct. Market justice economics, with its values gradients of status, income and entitlements (Beauchamp, 1989), upon which colonialist venturism is found, rounds out the triad of taxonomic-theocratic-capitalistic justification that provides the philosophical proviso of extraction ethic models rampant in corporate and governmental sectors today. A demonstrable and foundational basis for the cause of a more progressive and persistent engagement, which embraces intrinsic and intuitive valuation of natural ecosystems, exists in the counter theory of land ethic.

In direct opposition to the “laws” upon which the extraction ethic is founded, the conceptual and functional ideals of land as an end to itself, as having both intrinsic and inherent value, is enlivened in the spiritual and cultural traditions of the MHA and in the philosophy and writings of Kant, Thoreau and Leopold. Contemporary writers like Kolbert, Klein and Pollan occupy a more urgent, but no less important, action-driven space and
agenda. The common frame is animated by the moral imperative implicit in socioecological thinking – that we are part of an interdependent Ecosystem requiring conscious cooperation to persist.

Leopold (1949) begins his “Good Oak” chapter in *The Sand County Almanac* with the following,

There are two spiritual dangers in not owning a farm.

One is the danger of supposing that breakfast comes from the grocery, and the other that heat comes from a furnace. (2)

Leopold contends that knowing and experiencing self-sufficiency, consciously participating in acts of sustenance, activates internal mechanisms by which humans become more attuned to their role within the communal biospheric realm of interdependency and further, they will then comprehend the reciprocity requirement inherent in this closed system. He goes on to document history through the lens – the metaphorical experience - of an oak tree. In a sense, anthropomorphizing “oak tree,” giving it consciousness, to compel his point.

“All ethics…evolved upon a single premise: that the individual is a member of a community of interdependent parts…the land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land (Leopold, 1949, 12). A simply elegant concept that perfectly aligns with MHA cultural identity: “Hills are sacred because there’s spirits living in them…this water is really holy, it’s sacred, and we live through the water…we still continue to communicate and beseech for help in the rains that come…for medicinal plants and for red paint [clay earth].” (Grinnell, n.d.)

In the 1970’s, Stephen Kellert (1993) began developing a hypothesis, which he calls
biophilia, in which he identifies nine “typologies” of affiliation or perspectives concerning the nature-human relationship. Through an extensive survey structure, he categorized the responses and perceptions to various taxa (i.e. bears, marine life, endangered species) from nearly 4,000 individuals of varying socioeconomic status, professions and locations. From this analysis, Kellert distinguished nine evolutionary type characteristics of “biophilia tendency” (43). They are utilitarian, naturalistic, ecologistic-scientific, aesthetic, symbolic, humanistic, moralistic, dominionistic, and negativistic (59). While there is some crossover within types of tendencies as Kellert describes the functions of each type, and while his “hypothesis” assumes genetic predisposition toward nature that is linearly more or less antagonistic or protagonistic, these categories can help with understanding motivational forces and ethical implications that could contribute a framework or scale-of-forms approach in environmental policy design by asking, “How does this group of people relate to nature and how do we move them to the next evolutionary phase?”

Theories allow us to explain and predict patterns in nature and human nature. The conceptual and contextual application of the moral theory embedded in the land ethic can be summed up by Kant’s passages in his 1783 Lectures on Philosophical Teleology, which addresses the Realm of Causality (nature) and the Realm of Freedom (human perfection) and then, in his 1803 Opus Postumum:

The physical perfection of the world is the system of all ends
in accordance with the nature of things...without such a physical
perfection of the world, the rational creature might certainly have
an excellent value in himself, but his state could still be bad, and

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6 I learned this concept and term in John Gillray’s Philosophical-Policy and The Law graduate class. It describes and applies to evolving applications, inclusive of metaphysical and historical frameworks.
vice versa. But if both moral and physical perfection are combined, then we have the best world.

…it’s organizing force has so arranged for one another the totality of the species of plants and animals, that they, together, as members of a chain, form a system (man not excepted). That they require each other for their existence, not merely in respect to their nominal character, but (similarly) their real character (causality) – which points in the direction of a world organization (to unknown ends) of the galaxy itself). (Gillroy, 2000, 186)

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7 John Gillroy’s *Justice & Nature: Kantian Philosophy, Environmental Policy, & the Law* provides essential comprehension to operationalize Kant’s theories into philosophically-based functional Ecosystem policy applications.
Chapter Five
Methods and Results

This research explores three primary questions: Do the “benefits” of extraction industry practices (exploitation, pride, consumption) correlate to negative sociocultural and self-reported stress impacts in MHA Nation members because of an imposed disruption of traditional cultural values (reciprocity, trust, communalism)? How do tribal members’ self-evaluations of physiological impacts correlate with disruption of cultural values? Can an instrument to determine potential or actual cultural values disruption be applied as a mechanism for designing policy that is culturally relevant?

From these questions, several hypotheses were explored and answered by the research. *Hypothesis 1*) *The extraction industry has disrupted the cultural identity of some MHA Nation members and created a disruption of cultural values of the MHA Nation by introducing conflicting values such as commodification of the earth (extraction ethic) offset by financial benefits.* This hypothesis is disproved by the assigned CVD-6 Scale, but is further examined in this chapter and in the Discussion, and *Hypothesis 2*) *Tribal members’ self-evaluation of physiological impacts correlate with disruption of cultural values.* The Somatic Symptom Severity Scale disproves this. However, what emerges is a series of complex relationships between stress and various socioecological factors impacting *lived experience.*

**Methods**

The research design of this thesis includes both quantitative and qualitative methods. Instruments (survey and interview questions) were reviewed and approved by Casagrande, Burke and Lehigh University’s Institutional Review Board. Surveys were distributed to
approximately fifty (50) people on Ft. Berthold Indian Reservation. Only nineteen (19) surveys were returned to the researcher for this thesis. A total of eight (8) in-depth interviews were conducted with MHA Nation members. In order to obtain all data necessary to answer the research questions, there are three distinct parts of the survey. *See Appendix D*  Part 1 is a 30-statement Likert scale survey designed to reveal individual opinions about environmental impacts of EIP, cultural beliefs about EIP, ethical considerations, socioeconomic effects, personal cultural identification and policy process perceptions relating to EIP. Survey questions were compared and benefitted from the examination of a different survey used by Casagrande (2014) to measure the broad effects of natural gas extraction (Teske & Nelson, 1974) upon Pennsylvania residents. However, all survey statements involving cultural context in this thesis were developed from the researcher’s personal experience and observations of traditional indigenous knowledge and practices among the MHA Nation. Part II of the survey *See Appendix G.5* employed Cohen’s Perceived Stress Scale-4 (PSS-4) (Cohen, 2006) to correlate relationship of Part I survey statements to an established instrument as well as to document measurement of perceived stress in this community. Part III of the survey *See Appendix G.6* utilized the Somatic Symptom Severity Scale-8 (SSS-8) (Glerk et al., 2014) to document respondents’ physical symptomatology existing in real time with the presence of EIP at Ft. Berthold. Neither the PSS-4 nor the SSS-8 is meant to extrapolate causal relationship to EIP, but rather, serve to illustrate existing self-reported stress and physical symptoms occurring now, which may be exacerbated by the influences of EIP. Answers to all parts of the survey were coded and analyzed using t-tests, crosstabs, and Pearson bivariate correlations.
In-depth interviews consisting of approximately one-hour each were conducted with 42% of survey respondents to clarify and further explore their survey answers. Although a set of specific questions was designed (see Appendix E) for these interviews, the interviewee provided the “lead” by which this researcher then was able to more deeply inquire about specific interpretations and experiences with EIP at FBIR. Therefore, not all questions were asked at every interview.

Original Scales and Indices (OSI)

Four distinct and original scales/indices (OSI) were designed by the researcher to address the cultural domain of the MHA Nation. They are Policy Satisfaction Index, Cultural Values Disruption Scale, Land Ethic Dissonance Scale and Extraction Industry Practices Satisfaction Index. Each scale contains variables unique to that specific scale. Higher scores on OSI indicate stronger levels of dissatisfaction, disruption, stress or dissonance, according to the stated measurement.

The Policy Satisfaction Index (PSI) (see Appendix G.4) was created from 5 survey statements addressing respondents’ answers to how MHA Tribal Government (MHA-TG), on a policy level, has communicated information and functioned with the challenges and responsibilities of EIP on FBIR. This instrument tested well for reliability, Cronbach’s \( \alpha = .866 \).

Measurement of policy satisfaction helps to frame respondents’ perceptions related to tribal governance practices, democratic participation, policy proposals and information dissemination, as well as inferring considerations of environmental and social justice related to EIP on EPIR.
The Cultural Values Disruption Scale (CVD-6) (see Appendix G.1) contains six statements specific to EIP within the cultural sphere of the MHA Nation. Cultural values and cultural identification occupy related conceptual domains within this index and analysis. However, the influence of cultural practice as value or identity has been isolated from this framework due to the diffusion of religious practices associated with assimilation and the influences of colonialism on Ft. Berthold. For example, Christianity has been actively proselytized and adopted at FBIR since the arrival in 1876 of the missionary, Charles Lemon Hall (SHSND, 2016), and his Congregational Church teachings.

The Land Ethic Scale (LES) (see Appendix G.3) measures dissonance between the culturally relative land ethic, intrinsic to the tribal historical and cultural preservation of the MHA Nation, and the extraction ethic, introduced to the MHA by the scale of revenue-generating oil development on FBIR. The LES is comprised of 5 survey statements, which speak to the intrinsic land and landscape aesthetic, panentheistic perception and to the empathic, reciprocal relationship implicit within the cultural milieu of Indian people, in general. Leopold (1949) writes, “That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics” (viii, iv).

Finally, the Extraction Industry Practices Satisfaction Index (EIPSI-7) (see Appendix G.2) combines 7 survey statements measuring the level of personal approval of EIP through a lens of subjective economic security as well as extant and long-term impacts of this development on progeny.
Results

While the rate of distribution and return on surveys equals about half of the researcher’s target sample for this research, significant correlations have been found to allow these data to serve as a representation of some MHA Nation tribal members (this sample).

Nineteen (19) surveys were completed by thirteen (13) women (68.4%) and six (6) men (31.6%). Four (4) respondents were ages 18-34 (21.1%), nine (9) respondents were ages 35-54 (47.4%) and six (6) respondents were ages 55-75 (31.6%). Fifteen respondents live in New Town (78.9%), three (3) live in Mandaree (15.8%) and one person is from Parshall. New Town is considered the “capital” population center of FBIR, and is the location of MHA-TG offices, the Four Bears Casino, TAT museum, health clinic, large-scale food stores, Nueta Hidatsa Salish College, and most public services. Of the 5 respondents who returned surveys and were non-enrolled members of the MHA Nation, 3 were non-Indian. All of these 5 respondents have lived and/or worked on Ft. Berthold Indian Reservation for at least five years. The decision to include them in the survey was based on their longevity in relationship with the MHA Nation and investment in the FBIR community. Some non-Indians marry MHA Nation members, but cannot claim enrolled status (membership) without 1/8 degree Mandan, Hidatsa, or Arikara blood quantum (MHA, 2010). Of the five (5) respondents who are business owners, 3 are MHA Nation members. Not all survey respondents are included in every statistical test. This condition is identified by n value.

Listed above is the hypothesis that the extraction industry has disrupted the cultural identity of some MHA Nation members and created a disruption of cultural values of the MHA Nation by introducing extraction ethic values through extraction industry practices.
For this research, *cultural values disruption* (CVD) is understood as strain, tension and antagonism of self-identifiable cultural beliefs and characteristics, which contribute to cultural continuity within the MHA population. According to the CVD-6 Scale, a symmetric crosstabulation with gender of this sample shows 66.7% of women reporting moderate CVD, 25% reporting high CVD and 8.3% reporting some CVD. None of the respondents reported low CVD, the least rating on the scale. 80% of men reported a moderate level while 20% showed a high level of CVD. Of men and women together, 94.1% of all respondents showed either moderate or high levels of CVD. A t-test reported men in this sample have higher levels of *cultural values disruption* than women, $t(15) = 1.15, p = .05$. The source of the *disruption* is not clear, but it does exist at a higher level for men than for women. This is noteworthy because this is the only scale in which men show higher mean values. Further, 66% of questions within this scale specifically reference degree of agreement *since*, *with*, *from* and *of* extraction industry practices began on Ft. Berthold Indian Reservation, so the implication of CVD resulting from EIP is explicit within this index. While these data show high CVD levels, a Pearson correlation showed no relationship between the model’s *values disruption scale* – CVD-6 - and any other scales or indices used to measure culturally relevant information. *(see Table 1)* It is possible the CVD-6 is not a valid or reliable scale to measure *cultural values disruption* in the form first intended of this instrument. It is also possible that what the CVD-6 *is* measuring is significant (though not statistically) *because* of its absence of correlative value. In other words, *cultural values disruption* may not be visible through expected signifiers nor explicitly appear without unequivocal context. *(See *Discussion for the relationship of CVD to land ethic.)*
The Somatic Symptom Scale (SSS-8) was included in the survey to address this thesis’ hypothesis, that *tribal members’ self-evaluation of physiological impacts correlate with disruption of cultural values*. The SSS-8 frequency distribution (n=19), reports 47.4% *very low symptom severity*, 36.8% *low*, 5.3% *medium*, and 10.5% *high*. No significant correlation is found between the CVD-6 Scale and SSS-8 and therefore, we fail to reject the
null hypothesis \((H_0)\) for this hypothesis as there is no statistically significant relationship between self-reported somatic symptoms and cultural values disruption, according to, again, the CVD-6 Scale. However, two individual survey statements within the CVD-6 Scale, addressing the cultural value of land and sacred sites (S-12 and S-26) were identified by a Pearson correlation as statistically significant with the SSS-8 at the .05 level (1-tailed), \(S-12: n=14, r=.536; S-26: n=18, r=.443\). These correlations may suggest that examining impact to and relationship with specific sacred sites could provide insight into how internal physical manifestations of dislocation/disruption may connect to desecration of identifiable landforms such as the Missouri River or Thunder Butte.

Cohen’s PSS-4 (Perceived Stress Scale) frequency statistics reported low or moderate perceived stress levels. \(n=19, M=1.52, SD=.512\). None of the respondents reached the upper threshold \((x=15)\) of the moderate level for PSS-4. A t-test reported women have higher levels of stress, \(n=13, M=1.61, SD=.506\) than men, \(n=6, M=1.33, SD=.516\). The PSS-4 Stress scale is correlated and statistically significant to both the Land Ethic (dissonance) Scale, \(r=.463, p=.046\), and the EIPS1-7, \(r=.479, p=.038\), suggesting stress levels are related to increased dissatisfaction with EIP at FBIR.

The Land Ethic Scale reports a skewed 89.5% of respondents \((n=19)\) experience high or very high dissonance levels, with 10.5% reporting moderate dissonance. About 25% of responses to this scale report the maximum score \((max=25)\). This measure of dissonance describes the magnitude at which these respondents are challenged by the “signal:noise” ratio of EIP’s bearing upon MHA cultural/ethical responsibility to respect and protect the land, also known as Traditional Cultural Properties (TCP) (Grinnell, 2008), as keepers, for ancestral spirits, medicines and ceremonies. Unsurprisingly, The LES shows a significant bivariate correlation exists at the .05 level with both the Policy Satisfaction Index (PSI) and the EIPS1-7, suggesting
that philosophical/ethical constructs influence respondents’ policy preferences regarding EIP on FBIR.

Issues around the policy process and community participation mechanisms, which can protect from unintended (or intended) environmental or social consequences within a population, are common in large-scale resource development ventures (Finkel, Hays, & Law, 2013). This researcher expected reported EIPSI-7 values to be much higher, meaning higher levels of dissatisfaction. However, many of the respondents receive revenue from oil leases in which they own fractionated or sole parts of a parcel being developed by EIP. Though nearly 48% reported they were dissatisfied with EIP on FBIR, a full 41.2% of respondents were satisfied, and less than 6% were very dissatisfied. This suggests the changes to life as a result of EIP on FBIR, although not risk-free, are mitigated by some of the benefits of EIP for over a third of the respondents in this sample. While this may be true, it is interesting to note a one-tailed Pearson correlation test revealed EIP Satisfaction and Policy Satisfaction have a statistically significant relationship at the .01 level, r=.552, p=.008. While there is not enough data, nor statistical evidence, to conclude how policy and extraction industry practices may change one another, this correlation suggests different policies related to EIP on FBIR would have produced different levels of satisfaction with EIP. Therefore, in the concluding chapter, this thesis will provide considerations for policy interventions that may improve PSI scores.
Chapter Six
Discussion

This research explores whether the “benefits” of extraction industry practices (consumption, wealth, pride) correlate with negative sociocultural and health impacts in the MHA Nation because of an imposed disruption of MHA cultural values (land ethic, reciprocity, trust). How does tribal members’ self-evaluation of physiological impacts correlate with disruption of cultural values? Can instruments to determine potential or actual cultural values disruption be activated as mechanisms to inform policy design that is culturally relevant? Upon assessing the scope of data collection attempted by this researcher ex post, the development of original surveys/indices (OSI) proved essential to explain what the three-part survey data are showing. The OSI serve, not only, as a way to classify the data, but also, because specific survey statements target issues of policy, cultural identity, environment, economic outlook, etc., the OSI identify gaps in semantics, and regulate interpretation of MHA lived experience within the data.

Policy

The statistically significant positive relationship at the .01 level between the EIPSI-7 and the Policy Satisfaction Index is a meaningful finding. EIPSI-7 is a measure of the level of personal “approval” of EIP through a lens of economic impact and security as well as extant and long-term impacts on progeny. The correlation suggests that if different policies did exist regarding EIP on FBIR, there would be different EIPSI-7 scores. Nearly 78% of respondents were dissatisfied or very dissatisfied with policies concerning The People’s Fund, as evidenced in this statement:

"...it was a good idea but they were kind of relying on..."

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oil revenues to keep flowing. Now that they’re (oil revenues) stopped, they kind of started dipping into that (People’s Fund) and they’re not supposed to have.

(2016 interview, employed male)

It is the perception by some MHA members that the MHA-TC has been fast-tracking policies and ordinances for the benefit of oil drillers (and by extension, revenue streams to the tribe).

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
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<td>5.3</td>
<td>5.3</td>
<td>5.3</td>
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<tr>
<td>Satisfied</td>
<td>2</td>
<td>10.5</td>
<td>10.5</td>
<td>15.8</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>6</td>
<td>31.6</td>
<td>31.6</td>
<td>47.4</td>
</tr>
<tr>
<td>Very Dissatisfied</td>
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<tr>
<td>Total</td>
<td>19</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2 Policy Satisfaction Index Frequencies

A more historically and culturally relative approach to information dissemination may have resulted in greater numbers of MHA members participating in decision-making regarding how to responsibly balance the needs of the MHA Nation with the newly lucrative revenue stream. As one interviewee stated, when asked about the tribal council’s level of preparedness in handling the realities of EIP,

We’re a screaming freight train right now and...no brakes [laugh]...no brakes...just trying to slow down a little bit. We could’ve planned better...you know...

(2016 interview, employed male)

As well, because "fast-tracking" policy was the norm in relation to EIP on FBIR, an Environmental Impact Statement (EIS) was never completed on FBIR to address the environmental risks of fracking to water supplies nor to the culture. This lack of policy
oversight is viewed as posing greater potential health risks to tribal members and has resulted in greater distrust of the entire process of resource development with respect to the actual priorities of MHA-TC. One frustrated MHA member said,

*Anything that affects our wellbeing, according to our constitution, [like] protecting our future generations, protecting our environment, affecting the wellbeing of our people. It hasn’t ever been brought to us.*

(2016 interview, female activist)

Women are significantly more dissatisfied with EIP on FBIR; \( t(15)=2.9, p=.01. \)

This statistic aligns with national statistics citing stronger economic vulnerability of women as not only a consequence of gender (Hegewisch, A. and DuMonthier, A., 2015) but also as primary caregivers (National Alliance for Caregiving & AARP Public Policy Institute, 2015). In Native populations on rural reservations, these conditions are intensified (Austin, 2015).

**Stress**

Levels of perceived stress measured by the standardized PSS-4 correlate with several of the OSI used in the research. Although frequency statistics reported low or moderate perceived stress levels, PSS-4 is correlated to the Land Ethic (dissonance) Scale, \( r=.463, p<.05, \) and with the EIPS-7, \( r=.479, p<.05. \) Medical literature shows elevated stress levels increase cortisol production in the body, increasing risk for poor health outcomes associated with stress, i.e. heart attack, hypertension, obesity (Lin & Ensel, 1989; Miller, Chen, & Zhou, 2007). It follows that those who experience stress as
a direct result of EIP may be at greater risk of heart attack, hypertension, and obesity.

Again, since we already know that women have higher mean stress scores - $n=13$, $M=1.61, SD=.506$ than men, $n=6, M=1.33, SD=.516$ - and women have significantly more dissatisfaction with extraction industry practices in this sample, $t(15)=-2.9, p=.01$, a link can be inferred between stress, EIPSI-7 and a disproportionate effect upon the health of women on Ft. Berthold. (See Table 3)

<table>
<thead>
<tr>
<th>Independent Samples Test on Gender</th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
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<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
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<tr>
<td>Policy Satisfaction</td>
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</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-1.799</td>
<td>11.369</td>
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<td>Cultural Values Disruption</td>
<td>Equal variances assumed</td>
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<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
</tr>
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<td></td>
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<td>EIP Satisfaction Score</td>
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<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
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</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-1.701</td>
<td>10.217</td>
</tr>
</tbody>
</table>

Table 3: Independent Samples Test On Gender for Original Scales and Indices
Cultural Disruption

The Cultural Values Disruption scale requires discussion as there are missing distinctions in the definition of “cultural values” that may better explain answers given by respondents. The CVD-6 scale, as an instrument, asks for a conceptualization of cultural values, based on imprecise language. For example, the survey statement, “My cultural values have strengthened since EIP began on FBIR,” neglects the nuance of not only cultural values, but also, strengthened. Which cultural values? Strengthened how?

Another example, “My cultural values, as I interpret them, agree with EIP on FBIR” negates a common framework by which MHA Nation cultural values may be defined – a “local customary idiom” by which social systems are maintained and expressed (Sahlins, 1999). A third, a virtual inverse of the last example, “I am committed to my cultural identity,” assumes homogeneity of an identifiable MHA cultural identity. There is neither clarifying context nor substantive content within these statements. They fail to “ground” the concept of cultural values, and therefore, neglect to describe or infer disruption as an unambiguous measure.

The first question in the field interviews for this research asked each respondent to describe what is most important (valuable) in their life at FBIR. This question turned up a few surprising, yet mostly, collectively similar, answers: environment, land, homeland, be close to the “people,” children, family, Indian ways, spirituality, commitment to prayer, health, culture, work ethic (mentioned in two interviews), education, communication, respect. The contrast of conceptual vs. functional cultural values is apparent within this list. Functional values are bounded by their bearing on the lived experience - land, children, family, health, education, work, spirituality; whereas,
conceptual cultural values such as respect and homeland express a type of idealized felt experience. Values such as reciprocity, humility, gratitude and compassion are embedded conceptual values of the MHA Nation, yet only one interviewee off-handedly identified this essence, and quite remarkably, the spirit of the MHA, by saying, “We are a giving people” (Wolf Tice, interview). Most identifiers posing as values in this sample are of the instrumental/functional type. Sahlins (1999) asserts that the functional is structural, and depends on historical context of values and relationships of the culture for its potential realizations (408). Therefore, I contend the CVD-6 may actually be saying more about subjective context and lived experience than disruption of the conceptual values to which it was initially assigned to describe. The subjective context of the MHA is shaped by the individual within the common culture of its community and influenced by the historical processes of assimilation and acculturation, but it is defined (identified) by the socioeconomic, sociopolitical and socioecological experience of life at Ft. Berthold. Harmon (2010) describes the “inconsistencies inherent in hegemony” (181) as dominated cultures navigate the distortion between ideology (felt experience) and practice (lived experience). This is why, I suggest, CVD-6 showed no significant correlations amongst the other OSI. The conceptual and contextual live at opposite ends of the continuum of culture. Meanwhile, there are correlations between EIPSIC-7, LES and PSI scales, which specifically define socioeconomic, socioecological and sociopolitical factors. Further, when we break down the components of values, we are left with home, economy, community, family and environment - signifiers more indicative of civil society, or even, of social determinants of health (SDOH), which are found to be especially sensitive in Native American communities (Knibb-Lamouche, 2013).
The conceptual context of MHA values, vis-à-vis the magnitude of disruption, may be more clearly found in what is described as “land ethic.” Semantically, the LES, though, names and describes dissonance (instead of disruption) as its target measure.

**Land Ethic**

Quantifying dissonance within the land ethic-extraction ethic dialectic is important, as it suggests a different level of dispossession, or covert culture conquest (Teske & Nelson, 1974) threatening the MHA by undermining the ethical construct normalized within this unique group. The Land Ethic Scale shows 89.5% of respondents experience high or very high dissonance levels, with 10.5% reporting moderate dissonance. About 25% of responses to this scale report the maximum score (max=25). This measure of dissonance suggests respondents are challenged by the “signal-noise” ratio of EIP’s bearing upon their ethical relationship with the land. Unsurprisingly, the LES shows that a significant positive correlation exists at the .05 level with both the Policy Satisfaction Index and the EIPSI. Extraction industry practices (EIP) are causing disruption according to Land Ethic Scale, PSI and EIPSI values. This finding suggests culturally relative ethical constructs do influence respondents’ policy-related responses, and by extension, policy preferences, regarding EIP. Land ethic, as a conceptuality of relationship with homeland, is a more persuasive argument for the disruption affecting the functional/contextual elements in the lived experience of MHA Nation members. Gillroy (2000) contends, philosophically, the deontological purpose of humanity to support the functional integrity of nature provides an intrinsic moral framework that describes land ethic. It is an argument that puts the purpose of nature at
the service of humans. However, even by expanding this Kantian anthropocentric view into a wider lens of higher good (178) or lending Hume’s *sentimentality* of nature insight into an “is/ought” argument (Callicott, 1989), it still does not adequately express the essential and existential construct of *land ethic* in an indigenous context. As evidenced in the interviews and historical section of this thesis, formalized ceremonies and sacrifices are regularly made for the “spirits” of nature - animals, bodies of water, plants, earth as Mother (Fixico, 2011; Byrd, 2011) and hardly a high school student in America has not read the words of Chief Seattle to President Franklin Pierce in 1854:

*This we know: the earth does not belong to man, man belongs to the earth. All things are connected like the blood that unites us all. Man did not weave the web of life, he is merely a strand in it. Whatever he does to the web, he does to himself.* (Anton, 2011)

Writer and Anishinaabe activist, Winona LaDuke, describes it simply,

*According to our way of looking, the world is animate.*

*This is reflected in our language, in which most nouns are animate...Natural things are alive, they have a spirit.*

*Therefore, when we harvest wild rice on our reservation we always offer tobacco to the earth because, when you take something, you must always give thanks to its spirit for giving itself to you.* (LaDuke, 1996)
Western civilization’s imperialistic conquests, on the other hand, have advanced a decidedly anti-land ethic by essentially indoctrinating expansion, development and capitalistic pursuits within its own cultural milieu through industrialization of agriculture, excessive mining of natural resources and creation of concrete urbanized population centers that endure and persist in market-based economies and globalized value-based patterns of consumption. This is what is referenced as the epitome of extraction ethic.

The ceremony of living – of the lived experience - is a function of the conceptual and symbolic. It’s a non-dualistic experience. We, as humans, attempt to define, understand and explain our place, this place within our biosphere, which we share with all its inhabitants, big and small. For those who are restricted from the relativity of naturalism, ecoism and similar philosophical concepts of the “web of life” variety described by Chief Seattle, Leopold, Callicott and others, I assert they may be the truly dispossessed. Urbanites, colonialists and expansionists who have lost their essential sense of bio-ethicism, upon which Homo sapiens have relied for survival and aesthetic renewal much longer than not, suffer the great void of psychobiological homelessness; a state of which they are cognitively unaware, but which, I contend, impacts individual and collective health and wellness.

In a Native vernacular, we would simply say they have lost their way.

...this land has the elements of the bodies and the parts that lived before us. It’s used over again and again. It’s going to be part of us again... (2016 interview, employed male)
Chapter Seven
Policy Implications

Identifying stress, disruption, dissonance or dissatisfaction within a population requires certain presuppositions. For example, culturally relative definitions by an outside agent cannot be made within the context of a small sample such is presented here. Despite familiarity with customs and capacities of the MHA Nation, and kinship relationship to tribal members, the social and physical environment at Ft. Berthold is beyond the capacity of this researcher to comprehend as a “like member” of the tribe unless such definitions are established at the outset, which they were not. Since environmental stimuli are mediated by cognition, a minimum requirement for identifying a situation as stressful requires that those studied appraise and define it in the same way (Spradley and Phillips, 1972). While interviews confirmed and refuted definitions of some important keywords within survey statements, this study would have benefitted from closer attention to culturally relative definitions and culturally relevant instruments to evaluate these definitions. Although specific measurement instruments exist to address AI/AN indigenous lived experience, such as The Historical Loss Scale and Historical Loss Associated Symptoms Scale (Yellow Horse Brave Heart, M., Elkins, Tafoya, Bird, & Salvador, 2012), they are unsuitable for the research questions of this thesis. The four OSI developed for this research are a unique and original contribution to address the gap in measurements instruments specific to indigenous and non-indigenous place-based cultures encountering extraction industry development.

Sample size is a strong limitation of this study. A larger sample would have yielded more reliable and valid data by which to assess and evaluate the thesis questions regarding
specific impacts of EIP on FBIR. This statement, though, does not negate the findings of this sample, nor the correlations existing within these data. In fact, this sample suggests a surprising amount of evidence from which to deduce negative impacts of EIP on FBIR in multiple spheres – political, physiological, environmental, cultural and social. Issues of timing and access to more key informants would have expanded the range of exposure to potential survey participants. The powwow/sundance season is active during the summer months, during which time this research took place. It is the season of ceremonial and cultural recharge for the MHA and, as a result, minds and hearts are focused elsewhere. As one respondent commented, “I wish all the researchers would just leave us alone” (elder woman interview). In fact, her sentiments reflect an even deeper shared feeling succinctly expressed by noted Native American historian/author, Vine Deloria, Jr., who wrote in his 1969 classic, Custer Died for Your Sins, “Compilation of useless knowledge ‘for knowledge’s sake’ should be utterly rejected by the Indian people. We should not be objects of observation for those who do nothing to help us” (Deloria, 2014).

A lack of existing baseline data and lack of access to long range tribal epidemiological data presented barriers in understanding how environmental factors associated with EIP at FBIR have impacted health in MHA children, elders and pregnant women. The Great Plains Tribal Epidemiological Center (GPTEC) in Rapid City, SD compiles state and county-level public health data for Native Americans living in ND, however, GPTEC cannot isolate reservation-specific data without cooperation of MHA Nation-affiliated health clinics operating at FBIR. Several failed attempts to gain access to these data in person and via email, as well as through direct conversations with tribal members, suggest four possible scenarios: 1) there is no data collected; 2) there is no
organizational effort to aggregate and evaluate longitudinal health data as it relates to EIP; 3) access to existing data is obstructed due to potential implications regarding the MHA-TC’s duty to protect MHA members from the harms of EIP on FBIR; 4) access to existing data requires conditional provisions not offered to this researcher.

The primary questions of this research addressing the concept of “cultural values disruption” of the MHA requires understanding and some knowledge of the history of U.S. laws and policies related to Indian People. This is covered in the historical and policy chapters of this thesis. Cultural disruption of Indian people, as an ethnic group, has been documented in anthropologic, psychological, health and sociological literature, referring to cultural continuity (Weaver, 2001), historical trauma (Yellow Horse Brave Heart, M. et al., 2012), addiction studies (Koss et al., 2003) and the condition of Native American society (Churchill, 2002). Intended or not, bi-cultural exchange has always been part of the historical dynamics in colonialist endeavors. The value of trade for goods and services between Indians and Europeans existed before the allotment, relocation and termination periods (Harmon, 2010). In fact, the Upper Missouri River provided an important trading post between Europeans and Indians where Mandan and Hidatsa agricultural methods and merchandise were sought after (Bowers, 1950; Fenn, 2014) commodities. The domain of resource revenue has, as well, been embraced by the MHA. In 1977, historian Roy W. Meyer offered this view of a basically mixed culture, “with the non-Indian elements dominant but Indian elements tenaciously and consciously preserved by a people as adaptable as their ancestors and determined to have the best of both worlds” (Murray, Zedeño, Hollenback, Grinnell, & Crows Breast, 2011). Sahlins (1999) suggests resistance to other as a cultural response to technology and capitalism does not resolve the issue of
differentiation within a hegemonic context, but rather, the “indigenization of modernity” (410) compels a more appropriate “cultural space” (410) through which to solve the threat of hegemony. In order to identify the appropriate “cultural space” of EIP on FBIR, the MHA must come to terms with how and why its own indigenousness is being compromised. This research sheds some light.

You gotta learn how to deal with it. At first I was upset, angry, but I thought, “it’s here no matter what.” It’s not gonna go away, but we have to make sure and hold industry accountable, liable for what they’re doing to us. But we also need to create laws, and enforce them, and have people who are passionate who want to enforce and protect the people.

And that’s one thing that we’re having a challenge on.

Because we don’t know the overall impact of what’s happening. (2016 interview, female activist)

Culturally responsible design in research with indigenous cultures requires adaptation to temporal and spatial considerations existent within the context of that culture, as well as estimation of internal perturbations affecting the respondent’s ability to focus consistently, speak freely and comprehend fully within interviews. These factors, singularly, can make information access difficult. Therefore, deference to interviewees’ preferences for settings, activity level, time of day and length of time for the interview process is fundamental to ensuring context. The variance of interview locations
(e.g. business office, car ride, restaurant, library, sitting outside while 18-wheeler trucks passed by) for this sample illustrates the desire of interviewees to tell their stories, under any situation. It also is an indicator of the range of normal daily life at FBIR. Again, the contextual lived experience eclipses the conceptualized ideal.

A primary conclusion of this research is that, in this sample, land ethic dissonance is not unbound from tribal members’ dissatisfaction with policy. Changes in MHA Nation Tribal Council policies regarding EIP have the opportunity to change what has become a social and environmental justice issue imposed through the same mechanisms of trade/exchange between colonial “forces” and Indian tribes dating back to the 1700’s (Harmon, 2010). Europeans introduced market-based economies to North American Indians, an economic system dependent on competition and capitalism to drive revenue. Wealth disparity drives poverty, and that disparity is seen in infrastructure and access to services. As one interviewee stated,

What have we seen in infrastructure? What stores...?

Look at this building...the tribe owns this building.

I[’s] flooded every time it rains. What improvements have we seen to our community? Mandaree still looks the same.

We got a new powwow grounds. There’s [sic] no stores in Mandaree. Nothing has changed. I’m sure Ryan Chevrolet in Minot is reaping huge benefit from it, because that’s the first thing we do – go buy new vehicles. You know...

people should get more of that revenue than the tribe.

(2016 interview, female business owner)
The flooding that came with the Garrison Dam in 1953 traumatized MHA Nation members living at Ft. Berthold Indian Reservation by causing the entire frame of reference of functional and conceptual values to be unquestionably altered overnight as the MHA went from traditional agriculturalists to ranchers and industrialists (MHA, 2016). Although this new modern version of dislocation, in the form of oil rigs, flaring, truck traffic, crime and health risks demands a different kind of skillset to navigate drilling leases, palpable social stratification and “inspections” by outsiders, the trauma of disruption and dissonance is no less oppressive than the Garrison Dam relocation was to the “cultural viability” (et al., 2011) of place, so profoundly integral to the MHA.

Policy Prescriptions

This research provides a lens whereby the effects of extraction industry practices at Ft. Berthold can be witnessed on a continuum of values – from concrete/functional to ideal/conceptual – as it impacts tribal members’ health, environment and cultural perspectives. In order to respond to the disruption, dissatisfaction and dissonance amassed between policy satisfaction and land ethic, extraction industry practices and stress, and other correlative indicators, actionable items can be considered by community institutions, the MHA-TC, and MHA members at large to enact various participatory mechanisms at Ft. Berthold. What follows is a list of policy prescriptions, based on these research findings, from community initiatives to governance structures, which, if pursued, encourage a values-driven approach akin to those described previously in this thesis within the philosophical frameworks of Clark, Kant and Leopold. While some of these policy recommendations may
exist already at FBIR, evaluation tools should regularly be applied to determine if culturally relative or other prescriptions are more appropriate.

1. **Communication dissemination mechanisms.** In this population sample, 89.5% of survey respondents agreed or strongly agreed with the statement, “I would have liked to know more about EIP before it began.” Knowledge of policies or intended policies can directly impact respondents’ satisfaction with Tribal Council representatives. The MHA-TC can respond to this by providing consistent and accurate information about all issues regarding EIP on FBIR. This researcher was never offered or directed to an official copy of policies when visiting tribal offices, but later discovered there is access to Council meeting minutes, resolutions, segment newsletters, and environmental policies on the mhanation.com website. This information can be viewed freely, and is certainly in line with the USG model of information availability and dissemination. One barrier to access by all MHA members is that not all households at FBIR have computers, nor are all MHA members technology-literate. An MHA Nation App for Smartphones may offer a better mechanism for transparency and access to information by more members. As well, an FAQ (frequently asked questions) information sheet, addressing “real” questions from MHA members can be compiled and distributed via US Mail and published in the MHA Times.

2. **Health data collection and access.** Public health epidemiological data is one of the most powerful tools for identifying health disparities due to environmental factors. Availability of data informs professionals of target
areas to reduce negative impacts of public health risks. For every $1.00 investment in public health initiatives, $5.60 is saved in health care spending (APHA, 2016). Positive correlations in this research between stress, land ethic and extraction industry practices infer risks to health status as a result of governance decisions associated with EIP. Community health data collection is essential as a minimum effort to document the rates and incidence of diseases and conditions over time. Active epidemiologic data collection efforts can be coordinated by the MHA-TC, Community Health Representatives (CHR), Elbowoods Memorial Health Center, schools and community members, to ensure a broad partnership of various parties, with all having access to a universal data access portal to track trends and risk factors. This effort will positively impact trust in the processes by assuring active surveillance and analysis of the health needs of the community.

3. **Community Board of Advisors in all Segments.** Tribal Council representatives should work with community members and citizen groups to assess community needs, desires and concerns of MHA members. Citizen groups have taken on some of this charge on a volunteer basis, but it is the responsibility of the MHA-TC to serve MHA Nation enrollees and ensure effective solutions to housing, health, mental support, economic, spiritual and cultural requirements are being met. Community needs assessments can be channeled through existing or customized mailed survey instruments, focus groups and large community gatherings, like powwows, to gather data and
feedback. By engaging community members in problem definition, policies will more likely effectively address community needs.

4. **Environmental Monitoring.** This research shows nearly 90% of respondents are “worried” about environmental impacts associated with EIP. These concerns can be addressed. Efforts by Nueta Hidatsa Sanish College environmental science experts and students as well as MHA Environmental Division can be employed to set up persistent water, stream, lake, air and traffic monitoring throughout reservation Segments. Real-time reporting implemented via feeds on the mhanation.com website, social media sites and MHA Radio can offer transparency and secure rapid response systems in the case of an environmental emergency.

5. **Community leaders.** Several interviewees for this research were self-educated in the area of environmental law and policy. These community leaders are the soul of the MHA Nation. They have retained and maintain Sovereignty as more than a “…by the Barrel” proposition. Developing a network of community leaders who can provide local outreach in educational and skill-based initiatives is an invaluable resource in securing optimization of communication and resources. Participation in community events promotes social cohesion and wellbeing.

6. **Women’s health.** Historically, women are the backbone of the MHA Nation. Maintaining and supporting the health of women as caregivers and lifegivers secures the lives of families. Family is the first circle in ecological and indigenous models. This study suggests MHA women are at higher risk for
stress-induced conditions such as hypertension, diabetes, obesity and cardiovascular disease as a response to EIP. Implementing a women’s health initiative at FBIR targeting stress can decrease risks of these. Health and wellbeing can be improved by meditation, yoga and walking groups, which build social inclusion, improve work attendance (Shonin, Van Gordon, Dunn, Singh, & Griffiths, 2014) and decrease incidence of fatigue and depression (Harvard, 2009). Among all women, Native American/Alaskan Native women have the 2nd highest rate of suicide in the United States (Centers for Disease Control, 2015). Understanding the mechanisms that contribute to these conditions means making women’s health a priority on FBIR.

7. **Youth Projects.** Survey respondents are concerned about the youth at FBIR. The influx of drugs onto the reservation since EIP was a repeated theme in interviews. As well, the lack of programs for youth who no longer have to go to work because “gramma is giving you oil money” (2016 interview with employed male) introduces “values” issues regarding entitlement and non-engagement in adult rights of passage. Providing ATOD\(^1\) prevention and mental health education programs, as well as service learning opportunities for youth, builds tribal capacity. Integrating technology, youth can do community-mapping projects, create political statements, document personal histories, and find solutions through arts and apprenticeships.

8. **Create Accountability.** All public policies require mechanisms for evaluation. Building these tools into the existing structure addresses concerns

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\(^1\) Alcohol, tobacco, and other drugs
interviewees expressed regarding “checks and balances” (2016 interviews with female activist, elder, male elder). While the governance structure of a staggered Tribal Council does allow for some accountability through the elections process, in the spirit of the traditional governance norms, the integration of accountability mechanisms that are unique and culturally relative are suggested as a start to reestablished a trust-based relationship with Tribal Council representatives and their Segment populations.

9. **Outreach.** Invite the counsel of other Native Nations who have been through the process of cultural reclamation, re-Indigenizing lost values and extraction industry protection. The Cheyenne River Sioux just completed a reservation-wide research project, including a household survey of over 800 families that has created a historic set of baseline data for the Cheyenne River Sioux Tribe and others serving the reservation population to address issues of poverty on the reservation. “Reinventing the wheel” (2016 interview, female elder) is a waste of time and resources. A Tribal Council that is implementing evidenced-based approaches to these issues will incur more confidence from community members, resulting in less stress overall.
Closing Statement

All colonizing forces are not Western in origin, but within this thesis, the influence of Westernization – corporatism/capitalism manifest by an extraction ethic - has been critiqued. While the most identifiable USG expression antithetical to the extraction ethic appears in the pre-Modern era as the preservation of Nature through National and State Park Systems, even those treasures are under threat with modern EIP. Uranium mining endangering the Colorado River flowing through the Grand Canyon, and oil and gas drilling adjacent to, ironically, Theodore Roosevelt National Park are two examples. The current Sustainability movement and Paris Accords, focused on slowing human-induced Climate Change, offer hope for normalization of something akin to a universal land ethic. As development and adoption of carbon neutral and carbon capture technologies become more commonplace, viewpoints will change and policies in governance spheres can better control for the incidences of environmental and social justice challenges relating to Indigenous populations, found to be particularly vulnerable to effects of fossil fuel exploitation (Vickery & Hunter, 2014) It is clear some MHA Nation members are not uncomfortable with certain outcomes of EIP at FBIR, such as having expendable income and the possibility of ensuring a monetary inheritance for progeny; in a sense, a modern legacy that may prove to be more valuable for the generations to come. This research has shown it is not possible to generalize the mechanisms, within the historical framework of colonization, that lead some MHA members, but not others, to embrace EIP. The MHA have taken the concept of Sovereignty, an identifiable Indigenous construct, and mapped it onto the exploits associated with oil extraction. In a way, an effort to “own” it has made the MHA-TC responsible for the outcomes. Some would say they drank the Kool-aid. I would say they are co-Indiginizing the
situation. Perhaps the binary concept of One and Other – colonizer and colonized - is transformed by occupying a space of *hybridity*, which Bhabha (1994) explains is “in-between the designations of identity…that entertains difference without an assumed or imposed hierarchy” (4). This idea can be further contextualized in the sense that *trust* in the social structures referenced earlier in this thesis may play a greater role in the psychosocial adaptability of the MHA. The MHA Nation, as I have known and experienced them in social and personal spheres, are not self-identifying as *victims* of colonization. They make the best of it by *co-Indigenizing* the values brought to the reservation with EIP.

In spite of or because of this characteristic, as evidenced in the quote below from an MHA member who has engaged tools of technology to enhance her knowledge of environmental and land use laws, it is still the *protection* of the land, the *relationship with* the land, which cuts through like a lighting bolt over Thunder Butte or a gas flare on the prairie. This overarching value cannot be taken away, replaced or hybridized.

*I know that any anticipated action on federal land that anticipates environmental impacts requires an Environmental Impact Statement in that decision-making process. And that’s a federal process. It’s not a Tribal process. But it’s a federal process. And in the Department of Interior, Bureau of Indian Affairs, Hydraulic Fracturing, Oil And Gas Drilling Program here on Ft. Berthold, which is what this is, they are in violation of the NEPA Act. In full violation of it. Now maybe there’s all kinds of loopholes, but they’re in violation of it.*

(2016 interview, female elder)
This thesis is essentially addressing layers of a pre-existing 500-year old issue affecting the MHA today; that is, development and expansion of empire for capitalistic gain on Sovereign land. It is impossible to speak of Native American *lived experience* without consideration of colonialism and postcolonialism elements and outcomes. In a modern context of policy, we have evolved in finding juridical answers to the problem for the last 50 years as evidenced by The Indian Civil Rights Act (1968), the Indian Religious Freedom Act (1978), The Indian Self-Determination Act (1975), The Indian Child Welfare Act (1978) the more recent Cobell Settlement.\(^1\) Yet, we are still left with ongoing political issues – there is no EIS for the Standing Rock Sioux and there is no EIS for fracking at Fort Berthold. The juncture of corporate influence and government actions converge in as baffling a merger as ever, if we consider the reality of externalized costs for vulnerable populations. When will the political sphere meet the moral obligation of the oft-heard adage, “People Over Profits?” At what point does Sovereignty-as-extraction become synthesized for internalized communal value without externalized costs which erode *trust*, the fabric of the MHA cultural milieu? Policy and action require culturally relative and relevant processes and defined norms. An informed public can exercise care, express community concern, engage in meaningful *fact-based* dialog and hold tribal representatives accountable by showing up for council meetings, publishing letters that speak truth to power and using tools (education, social media, affiliations) of influence to support and legitimize arguments for improvements. The spirit becomes “broken” when we no longer feel the intrinsic drive to thrive, personally and socially. It is truly my hope that documenting dissatisfaction, revealing dissonance, providing evidence of stress in association with EIP and recommending action items for

\(^1\) *see Appendix for annotated listing of significant Indian policies and decisions since 1750.*
community members and policy makers will mobilize action on the part of the FBIR-TC and in the community at large to demonstrate active Sovereignty by taking responsibility for these conditions and enlisting Tribally-based solutions, on MHA terms, with the same spirit of resilience and ethical relationship toward the land which is both intrinsic to the People, and an ancestral birthright.
Bibliography


doi:[http://faculty.georgetown.edu/irvinem/theory/Bhabha-LocationofCulture-chaps.pdf](http://faculty.georgetown.edu/irvinem/theory/Bhabha-LocationofCulture-chaps.pdf)


Brown, M. S., et al. (2012). Residential proximity to a major roadway is associated with features of asthma control in children. *Plos One, 7*(5)


Centers for Disease Control. (2015). *Special feature on racial and ethnic health disparities.* United States: CDC.


Cross, R. (2011). Development's victim or it's beneficiary: The impact of oil and gas

Davies, P. (Oct 6 2014). Bakken has brought prosperity, challenges, to Fort Berthold Indian
Reservation. Retrieved from

https://www.minneapolisfed.org/publications/fedgazette/the-bakken-effect

Davis, R. C. (1932). *Ability in social and racial classes; some physiological correlates*. New
York: The Century co. for the Institute for research in the social sciences, University of
Virginia.

Deloria, V. (1985). In Vine Deloria (Ed.), *American Indian policy in the twentieth century*

of Oklahoma Press.

Dentons. (2014). *Report to the tribal business council of the Mandan, Hidatsa, and Arikara


doi:10.1093/toxsci/67.1.4


doi:10.100/jamainternmed.2014.12179


Holdman, J. (2016, Apr 6). Tribal oil company partners with energy educators. *Bismarck Tribune*

ICTMN. (2016). 'Sovereignty by the barrel': Tribe takes control of oil production. *Indian Country Today*


Knibb-Lamouche, J. (2013). Culture as a social determinant of health

. *Institute of Medicine Roundtable on Health Equity and the Elimination of Health Disparities, Seattle Washington.*


Lustgarten, A. (Feb 23 2013). Land grab cheats North Dakota tribes out of $1 billion, suits allege. *Propublica*


doi:10.1525/aa.1972.74.3.02a00190


Toensing, G. C. (Apr 13 2013). Tex hall receives Wendell A. Chino humanitarian Award. *Indian Country Today*


Weinberg, R. A. Coming full Circle—From endless complexity to simplicity and back again.  
*Cell, 157*(1), 267-271. doi:10.1016/j.cell.2014.03.004


Yellow Horse Brave Heart, M., Elkins, J., Tafoya, G., Bird, D., & Salvador, M. (2012). Wicasa was'aka: Restoring the traditional strength of American Indian boys and me.  

Appendix A - Photos of Earthlodge, Ft. Berthold Indian Reservation, 2016

All photos © 2016 Jacqueline Wolf Tice
### Appendix B – Selected Annotated Listing of Relevant Legislation by Act of Congress (A), Executive Order (EO), or Court Decision (C) Affecting Indian Country and MHA Nation

<table>
<thead>
<tr>
<th>Year</th>
<th>A/EO/C</th>
<th>Name</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1776</td>
<td>A</td>
<td>U.S. Constitution, Art. 3, Sec. 2</td>
<td>Recognizes Indian tribes as Sovereign entities</td>
</tr>
<tr>
<td>1823</td>
<td>C</td>
<td>Johnson v. M’Intosh</td>
<td>Marshall writes for majority that Indians are “occupants” of land and cannot transfer land titles¹</td>
</tr>
<tr>
<td>1825</td>
<td>Treaty</td>
<td>Atkinson and O’Fallon Trade and Intercourse Treaty</td>
<td>Known as a “Friendship” Treaty, Indians acknowledged the supremacy of the United States, and promised “protection” in return. Tribes agreed only to trade with authorized American citizens. Also agreed to litigate injury of American citizens by Indians and vice versa via United States law.²</td>
</tr>
<tr>
<td>1831</td>
<td>C</td>
<td>Cherokee v. Georgia</td>
<td>Marshall writes Indians are “domestic dependent nations” deserving of protections³</td>
</tr>
<tr>
<td>1832</td>
<td>C</td>
<td>Worcester v. Georgia</td>
<td>In reverse of previous rulings, Marshall for majority argues for mutual consent in US-Tribal relationship; gives “treaty-making powers”³ to tribes</td>
</tr>
<tr>
<td>1851</td>
<td>Treaty</td>
<td>Fort Laramie Treaty</td>
<td>Established land base for Plains Tribes due to U.S. expansion. Over 10,000 Lakota, Cheyenne, Arapaho, Crow, Mandan, Arikara, Assiniboine, and Gros Ventres (Hidatsa) in attendance. MHA “given” over 12 million acres. “In exchange for $50,000 a year for 50 years, the nations agreed to allow the United States to construct roads and military posts through their country. The tribes also established the boundaries of their territories and agreed to maintain peaceful relations with one another and with the United States”²</td>
</tr>
<tr>
<td>1870</td>
<td>EO</td>
<td>Fort Berthold Reservation</td>
<td>Fort Berthold established. MHA Tribes lose 7,833,043 of the over 12 million acres considered their territory</td>
</tr>
<tr>
<td>1871</td>
<td>A</td>
<td>Indian Appropriations Act End of Treaties</td>
<td>US abruptly ends treaty making as mechanism of USG-Indian relations. Treaties are protected under Art. 6, Cl. 2 of US Constitution as “Supreme law of the land”⁴</td>
</tr>
<tr>
<td>1880</td>
<td>EO</td>
<td>Executive Order of 1880</td>
<td>Further reduced MHA territory due to Northern Pacific Railroad route right-of-way</td>
</tr>
<tr>
<td>1887</td>
<td>A</td>
<td>Dawes Act (General Allotment Act)</td>
<td>Imposed privatization of land by “giving” allotment acres to individual Indians and selling off “surplus” to White settlers, effectively breaking up Indian Territory guaranteed by treaties¹</td>
</tr>
<tr>
<td>1892</td>
<td>Code issued by BIA</td>
<td>Indian Religious Crimes Code</td>
<td>Illegal to engage in Indian ceremonies or dances. The Ghost Dance vision by Wovoka, Northern Paiute, caused fear in USG as the vision called for Indians reunite with ancestors and Whites to disappear. Meant to lessen resistance to Christian indoctrination ³</td>
</tr>
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<table>
<thead>
<tr>
<th>Year</th>
<th>Act</th>
<th>Description</th>
</tr>
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</table>
| 1903 | C Lone Wolf v. Hitchcock | U.S. Supreme Court ruled that the United States Congress had “plenary power” over Indian tribes. Those powers are balanced against USG ongoing responsibilities to treaty tribes to act in the tribe’s “best interest” as legal trustee.  
| 1906 | A The Burke Act | Granted Sec. of Interior legal authority to name heirs of allotted Indian land (34 U.S. Stat. at Large 182)4 |
| 1912 | A Act of 1912 | Fort Berthold secured this first act to reserve minerals unconditionally to the tribe. Act of Apr. 3, 1912, 37 Stat. 631.5 Previous to this, allotment owners kept rights or USG had subsurface rights.5 |
| 1938 | A Indian Mineral Leasing Act | Provides for leasing of minerals on tribal lands6 |
| 1953 | A Termination Act | Removal of 109 tribes from federal subsidy roles. 2.5 million acres of tribal land taken out of “trust”; sold to non-Indians. |
| 1954 | A Public Law 280 | Police power (civil and criminal) on reservations transferred from federal to state jurisdiction. |
| 1956 | A Indian Relocation Act | BIA financed Indian individuals and families to specific urban cities (e.g. LA, Denver, Phoenix) for job training, housing, work. Broke up families on reservations. |
| 1975 | A Indian Self-Determination and Education Act | Reversed Termination Act by creating direct grants and contracts with government agencies. |
| 1982 | A Indian Mineral Development Act | Tribes can enter into energy development agreements with Department of Interior approval6 |
| 2004 | A American Indian Probate Reform Act (AIPRA) | Provided uniform code for owners and heirs of trust property4 |

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RESOLUTION OF THE GOVERNING BODY OF THE
THREE AFFILIATED TRIBES OF THE
FORT BERTHOLD INDIAN RESERVATION

A Resolution entitled, "Appointing George Abe and the TAT Legal Department as The Three Affiliated Tribes' Point of Contact or the Director and Staff of the Land Buy-Back Program for Tribal Nations"

WHEREAS, This Nation having accepted the Indian Reorganization Act of June 18, 1934, and the authority under said Act and having adopted a Constitution and By-Laws pursuant to said Act; and,

WHEREAS, The Constitution of the Mandan Hidatsa and Arikara Nation (MHA Nation) generally authorizes and empowers the Tribal Business Council to engage in activities on behalf of and in the interest of the welfare and benefit of the MHA Nation and of the enrolled members thereof; and,

WHEREAS, Article III of the Constitution provides that the MHA Nation Business Council is the governing body; and,

WHEREAS, The Court Approved Settlement in the Cobell v. Salazar case provided for the creation of a $1.9 billion Trust Land Consolidation Fund and charged the Department of the Interior with using those monies to consolidate fractionated interests in trust land; and

WHEREAS, To achieve this objective, the Secretary of the Interior created the Land Buy-Back Program for Tribal Nations (Buy-Back Program); and

WHEREAS, That Buy-Back Program has been directed, by the Secretary of the Interior, to focus its initial attention on acquiring fractionated interests on the forty (40) reservations which have the largest number of fractionated parcels, one of which is the Fort Berthold Indian Reservation; and

WHEREAS, To implement this approach, the Buy-Back Program has established initial purchase ceilings for each of those forty (40) reservations. This was done using a formula which took into consideration three factors: the total number of purchasable fractionated interests within the reservation, the number of fractionated tracts within the reservation, and the number of acres related to those fractional interests; and

WHEREAS, Applying this formula, the Buy-Back Program has determined that the initial purchase ceiling for the Fort Berthold Reservation will be $56,602,000; and
WHEREAS, To expedite its purchase efforts, the Buy-Back Program has offered the Federally Recognized Tribes on each of those forty (40) reservations the opportunity to participate in the Program's land consolidation efforts by, among other things, consulting with the Program on the approach the Program will use to implement its work on their respective reservations and by assisting the Program in its outreach to tribal members; and

WHEREAS, In March of 2014, the MHA Nation submitted a letter to the Program advising it that the MHA Nation wished to participate with the Buy-Back Program and on its efforts on the Fort Berthold Indian Reservation. The Program acknowledged receipt of that letter in May of 2014; and

WHEREAS, As an initial step, the Buy-Back Program has requested that the Tribe name an initial tribal point of contact to serve as a liaison between the Buy-Back Program's staff and the Tribal Business Council until a more formal working relationship can be established between the Program and the Tribe through the negotiation and execution of a Cooperative Agreement; and

WHEREAS, The Tribal Council has determined that appointing such an initial point of contact is in the best interest of the Tribe and has determined that George Abe and the Legal Department have the knowledge and skill to serve in this position.

NOW THEREFORE BE IT RESOLVED, that the Mandan Hidatsa and Arikara Nation hereby appoints George Abe and the Three Affiliated Tribes Legal Department to serve as its initial Tribal liaison between the Director and staff of the Land Buy-Back Program for Tribal Nations and the Tribal Business Council of the Three Affiliated Tribes. George Abe and the Three Affiliated Tribes Legal Department are authorized to represent the Tribe during involvement in the Buy-Back Program. The Tribe will notify the Buy-Back Program in writing of any changes to the Tribe's point of contact.

(SIGNATURE PAGE TO FOLLOW)
CERTIFICATION

I, the undersigned, as Secretary of the Tribal Business Council of the Three Affiliated Tribes of the Fort Berthold Reservation, hereby certify that the Tribal Business Council is composed of 7 members of whom 5 constitute a quorum, 7 were present at a Regular Meeting thereof duly called, noticed, convened, and held on the 9th day of November 2016; that the foregoing Resolution was duly adopted at such Meeting by the affirmative vote of 7 members, 0 members opposed, 0 members abstained, 0 members not voting, and that said Resolution has not been rescinded or amended in any way.

Chairman [ X ] voting. [ ] not voting.

Dated this 9th day of November 2016.

ATTEST:

Tribal Secretary, Fred Fox
Tribal Business Council
Three Affiliated Tribes

Tribal Chairman Mark N. Fox
Tribal Business Council
Three Affiliated Tribes
Appendix D

Extraction Industry Practices Research Survey
Ft. Berthold Indian Reservation

Survey Consent Statement
Researchers at Lehigh University are conducting a study of how extraction industry practices on Ft. Berthold Indian Reservation affect health, environment and cultural perspectives. You have been invited to participate in a short survey.

The survey takes about 20 minutes to complete. Your responses will help improve state and national policies regarding oil and gas development. This research is funded by Lehigh University. It is not funded by any organization with a potential interest in the research results. Your participation in this study is completely voluntary. Your answers will be stored in a way that will not allow you to be identified by your name, email address, or mailing address. No local, state, federal, tribal or private agencies, or your employer will be able to identify you as the source of information you provide. By completing and returning this survey, you are providing your consent to participate in this research. You will receive a copy of this Consent Statement.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researchers, you are encouraged to contact Susan E. Disidore at (610) 758-3020 (email: sus5@lehigh.edu) of Lehigh University’s Office of Research and Sponsored Programs. All reports or correspondence will be kept confidential.

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Check box if you are a member of the MHA Nation

<table>
<thead>
<tr>
<th>Age:</th>
<th>Gender (M or F):</th>
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The following acronyms are used in this survey:
EIP = Extraction Industry Practices (drilling, flaring, oil extraction)
FBIR = Ft. Berthold Indian Reservation

PART I
Please read each statement carefully and place a check under the answer that best describes your response.

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don’t know</th>
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<tbody>
<tr>
<td>1 The extraction industry has had a positive impact in my community.</td>
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<td>2 The extraction industry has had a positive impact on my personal life.</td>
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<td>3 Extraction industry practices have improved economic conditions on FBIR.</td>
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<td>4 I experience more financial security since EIP began on FBIR.</td>
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<td>5 MHA Nation children from FBIR have a better future because of EIP.</td>
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<td>6 It is disturbing to see the FBIR landscape change.</td>
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<td>7 I am easily adapting to the changes caused by EIP on FBIR.</td>
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<td>8 I am not worried about the environmental impacts on FBIR.</td>
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<td>9 FBIR will be protected by the spirits from potential harms of extraction industry</td>
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<td>10 I benefit from the extraction industry practices on FBIR.</td>
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<td>11 My cultural values have strengthened since EIP began on FBIR.</td>
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Please complete both sides
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<tr>
<th>QUESTIONS</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don’t know</th>
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<tr>
<td>12 Thunder Butte was more important to my ancestors than it is today.</td>
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<td>13 The environmental risks (air/water/soil) and costs (traffic/population/higher prices) of EIP on FBIR are worth the benefits of extra money.</td>
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<td>14 I feel safer (than before) since EIP began on FBIR.</td>
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<td>15 I am committed to my cultural identity.</td>
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<td>16 My cultural values have changed since EIP began on FBIR.</td>
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<td>17 I support EIP on FBIR</td>
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<td>18 The Tribal Council effectively communicates any problems relating to EIP on FBIR.</td>
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<td>19 The People’s Fund is a fair exchange for the changes occurring with EIP on FBIR.</td>
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<td>20 The Tribal Council makes good use of revenue from EIP on FBIR.</td>
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<td>21 I was well informed by my Tribal Council of all risks and benefits before EIP began on FBIR.</td>
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<td>22 I would have liked to know more about EIP before it began.</td>
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<td>23 In general, I feel sad when I look at FBIR since EIP began.</td>
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<td>24 My cultural values, as I interpret them, agree with EIP on FBIR.</td>
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<td>25 I look forward to leaving my grandchildren a legacy that includes EIP on FBIR.</td>
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<td>26 Grandmother Earth is suffering from EIP on FBIR.</td>
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<td>27 My ancestors in the spirit world approve of extraction industry practices on Ft. Berthold.</td>
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<td>28 I am concerned the Sundance will go the way of the Okipa now that we have EIP on FBIR.</td>
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PART II
Stress Scale
This section contains questions about stress. We are asking these questions to determine how much general stress may play a role in your answers on the rest of the survey.

In each case, please indicate your response by placing a “✓” (check mark) representing HOW OFTEN you felt or thought a certain way.

<table>
<thead>
<tr>
<th>During the last 30 days, how often have you thought or felt the following?</th>
<th>Never</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In the last month, how often have you felt that you were unable to control the important things in your life?</td>
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<td>2. In the last month, how often have you felt confident about your ability to handle your personal problems?</td>
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<td>3. In the last month, how often have you felt that things were going your way?</td>
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<td>4. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?</td>
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</table>

Part III
Somatic Symptom Scale
This section contains questions about physical (somatic) symptoms. We are asking these questions to determine how physical symptoms may play a role in your answers on the rest of the survey.

<table>
<thead>
<tr>
<th>During the last 7 days, how much have you been bothered by the following problems?</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>Very much</th>
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</thead>
<tbody>
<tr>
<td>1. Stomach or bowel problems</td>
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<td>2. Back pain</td>
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<td>7. Feeling tired or having low energy</td>
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<td>8. Trouble sleeping</td>
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<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>Very much</th>
<th>No answer</th>
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<tr>
<td>29. I engage in MHA cultural and/or ceremonial healing practices for stress.</td>
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<tr>
<td>30. I engage in MHA cultural and/or ceremonial healing practices for physical symptoms.</td>
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Appendix E

Interview Questions

Ft. Berthold Indian Reservation

1. What is most important to you when it comes to life here on Ft. Berthold Indian Reservation?
2. What do you see as the impacts of extraction industry practices on Ft. Berthold Indian Reservation?
3. In what ways have you been impacted by these – from before until now?
4. How have things gotten better or worse since extraction industry practices began?
5. How have impacts of resource extraction on the land changed your feelings about this land?
6. What do you think is the connection between physical-mental-spiritual?
7. How do changes in the environment affect that connection?
8. How do changes in socio-economic status effect that connection?
9. Have the extraction industry practices created stress for you?
10. What kind of stress?
11. How do your cultural values/practices help you deal with the stress?
12. If things could be done differently, what would you suggest?
13. Of the following, choose the three/six that are most important to you
14. How have these been impacted by EIP on FBIR?
Appendix F.1

Cultural Values Disruption Scale – 6

Below are six statements that you may agree or disagree with. Using the 1 - 5 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item.

- 1 - Strongly agree
- 2 - Agree
- 3 - Neither agree nor disagree
- 4 - Disagree
- 5 - Strongly disagree

___My cultural values have strengthened since EIP began on FBIR.

___Thunder Butte was more important to my ancestors than it is today.

___I am committed to my cultural identity.

___My cultural values, as I interpret them, agree with EIP on FBIR.

___Grandmother Earth is suffering from EIP on FBIR.

___My ancestors in the spirit world approve of extraction industry practices on Ft. Berthold.

6 - 12 Low Disruption
13 - 18 Some Disruption
19 - 24 Moderate Disruption
25 - 30 High Disruption
Appendix F.2

Extraction Industry Practices Satisfaction Index (EIPSI)

Below are nine statements that you may agree or disagree with. Using the 1 - 5 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item.

- 1 - Strongly agree
- 2 - Agree
- 3 - Neither agree nor disagree
- 4 - Disagree
- 5 - Strongly disagree

_____ The extraction industry has had a positive impact in my community.

_____ The extraction industry has had a positive impact on my personal life.

_____ It is not disturbing to see the FBIR landscape change.

_____ MHA Nation children have a better future because of EIP.

_____ I am easily adapting to the changes caused by EIP on FBIR.

_____ I support EIP on FBIR.

_____ In general, I feel happy when I look at FBIR since EIP began.

8 - 15 Very Satisfied
16 - 24 Satisfied
25 - 32 Dissatisfied
33 - 40 Very dissatisfied
Appendix F.3

**Land Ethic Scale (LES)**

Below are five statements that you may agree or disagree with. Using the 1 - 5 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item.

- 1 - Strongly agree
- 2 - Agree
- 3 - Neither agree nor disagree
- 4 - Disagree
- 5 - Strongly disagree

___In general, I feel sad when I look at FBIR since EIP began.
___It is disturbing to see the FBIR landscape change.
___I am not worried about the environmental impacts on FBIR.
___The environmental risks (air/water/soil) and costs (traffic/population/higher prices) of EIP on FBIR are worth the benefits of extra money.
___Grandmother Earth is suffering from EIP on FBIR.

5 - 10 Low Concern
11 - 15 Moderate Concern
16 - 20 High Concern
21 - 25 Very High Concern
Appendix F.4

Policy Satisfaction Index (PSI)

Below are five statements that you may agree or disagree with. Using the 1 - 5 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item.

- 1 - Strongly agree
- 2 - Agree
- 3 - Neither agree nor disagree
- 4 - Disagree
- 5 - Strongly disagree

___The Tribal Council effectively communicates any problems relating to EIP on FBIR.
___The People’s Fund is a fair exchange for the changes occurring with EIP on FBIR.
___The Tribal Council makes good use of revenue from EIP on FBIR.
___I was well informed by my Tribal Council of all risks and benefits before EIP began on FBIR.
___I would have liked to know more about EIP before it began.

5 - 9 Very Satisfied
10 - 15 Satisfied
16 - 20 Dissatisfied
21 - 25 Very dissatisfied
Appendix F.5

Cohen Perceived Stress Scale (PSS-4)

1 Never
2 Almost never
3 Sometimes
4 Fairy often
5 Very often

___ In the last month, how often have you felt that you were unable to control the important things in your life?

___ In the last month, how often have you felt confident about your ability to handle your personal problems?

___ In the last month, how often have you felt that things were going your way?

___ In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

4-9 Low stress
10-15 Moderate stress
16-20 High stress
Appendix F.6

**Somatic Symptom Severity Scale - 8**

<table>
<thead>
<tr>
<th>During the last 7 days, how much have you been bothered by the following problems?</th>
<th>Not at all 1</th>
<th>A little bit 2</th>
<th>Somewhat 3</th>
<th>Quite a bit 4</th>
<th>Very much 5</th>
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<tbody>
<tr>
<td>1. Stomach or bowel problems</td>
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8-12  Low to minimum  
13-18 Low  
19-25 Medium  
26-33 High  
34-40 Very High
Biography

Jacqline Wolf Tice, from Center Valley, Pennsylvania, attends Lehigh University as a Master of Arts candidate and teaching assistant in the Environmental Policy Design program, concentrating on Environmental Justice and issues related to health outcomes in vulnerable populations. She serves on the College of Arts and Sciences Dean’s Graduate Advisory Council. She holds a B.S. in Public Health, with minor studies in Health Service Administration. Jacqline is a Certified Health Education Specialist (CHES) and has been employed as a Community Health Educator with St. Luke's University Health Network. She has done extensive research and presentations on the international Baby Friendly Hospital Initiative and Maternal Child Health, and is the former Vice-Chair of the Lehigh Valley Breastfeeding Coalition. Her recent work has included educational sessions and coordination for the Lead Awareness Project (funded by the Pennsylvania Department of Health). Jacqline is active with the American Public Health Association and was the 2015 recipient of their Campus Liaison of the Year Award. She has presented research on public health and environmental justice issues at both national and regional conferences, including the 2016 American Public Health Association Annual Meeting.

In her personal life, Jacqline is a musician, singer, poet, mother, medicinal plants harvester, avid walker, philosopher, Shakespeare-lover, and award-winning songwriter.