Chapter 3

Methodologies and Methods

This chapter establishes the methodology and the methods utilized in researching the history of the horse in the Americas and its relationship with the Indigenous Peoples of these same lands. To date, this “history” has been written to reflect a Eurocentric and colonial paradigm, leaving out the traditional knowledge (TK) of the Indigenous Peoples of the Americas and any information that is contrary to the accepted Western academic and cultural view. Not only is this version incomplete and misleading, it also serves to distort truth and deny the accomplishments of Native Peoples.

Melanie Birks and Jane Mills claim, “It is important to understand the difference between a methodology and a set of methods. Stemming from a congruent philosophy, a methodology is a set of principles and ideas that inform the design of a research study. Methods, on the other hand, are practical procedures used to generate and analyze data.” 153

A colonial paradigm has permeated academia for centuries. This phenomenon is addressed in Linda Tuhai Smith’s work titled Decolonizing Methodologies: Research and Indigenous Peoples:

Views about the Other had already existed for centuries in Europe, but during the Enlightenment these views became more formalized through science, philosophy and imperialism, into explicit systems of classification and ‘regimes of truth.’ . . . History was the story of people who were regarded as fully human. Others who were not regarded as human (that is, capable of self-actualization) were prehistoric. 154

Therefore, in order to conduct this research, I utilize an indigenous research paradigm that includes “Critical Indigenous Research Methodologies (CIRM).” 155 CIRM will be applied to this research in many ways, including the following: this investigation is being conducted with the support of Indigenous and/or non-Indigenous Elders from many Nations and communities within the United States and Canada; I plan to work closely with the community members who

participate in this research; respect cultural protocols regarding the exchange and presentation of TK; and the results of this project will be gifted back to such communities in a manner that participants decide would be most beneficial.

Grounded Theory (GT), or the "discovery of theory from data,"\textsuperscript{156} will be applied in tandem with CIRM in an attempt to explain the behavior and reactions of both non-Indigenous and Indigenous Peoples and/or societies surrounding this topic. According to the Grounded Theory Institute:

> Although many call Grounded Theory a qualitative method, it is not. It is a general method. It is the systematic generation of theory from systematic research. It is a set of rigorous research procedures leading to the emergence of conceptual categories.\textsuperscript{157}

If it is indeed a myth that the Indigenous horse of the Americas did not survive the last "Ice Age," and the Native Peoples actually did have a horse culture that preceded the arrival of the Spanish in the late 1400s, how is it that such a belief system has continued for hundreds of years and been accepted and promoted across academic disciplines? How is it that newly arriving explorers - such as Sir Francis Drake - and settlers could see large herds of wild horses, witness Indigenous Peoples with horses, and observe that such peoples had established unique horse cultures, yet still conclude that these Peoples’ knowledge, skills, and animals must be derivative of those provided by the colonizing cultures?

Even though "qualitative research studies [within Western academia] originate from early world explorers who documented their experiences of encountering the tribes of foreign lands while collecting cultural artifacts, all in the name of colonization,"\textsuperscript{158} such methods had been utilized within indigenous cultures to gain understanding for thousands of years. Therefore, the following qualitative methods will be utilized in this study: participant observation, interviews with Native Elders, medicine people, scientists, geneticists, reproductive biologists, archeologists, and horse experts, as well as analysis of written historical, academic, and scientific records.

In conducting this research from a perspective that is aligned with indigenous ontology, epistemology, axiology, and methodology, as well as utilizing Grounded Theory (GT) to help to


\textsuperscript{158} Birks and Mills, \textit{Grounded Theory}, 6.

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determine how Western academia and society, in general, came to be in this current place regarding this topic, it is expected that the dominant Western cultural claim regarding the history of the horse in the Americas and this animal's perceived relationship with the Indigenous Peoples of these same lands will be shown to be inaccurate, incomplete, and filled with cultural bias. In keeping with GT, the following methods will be applied in order to generate a well-grounded theory: "initial coding and categorization of data, concurrent data generation, collection and analysis, writing memos, theoretical sampling, constant comparative analysis, theoretical sensitivity, intermediate coding, identification of a core category, and advanced coding and theoretical integration."  

As stated in Chapter 1, Western science recently completed the genome sequencing for one Middle Pleistocene and one Late Pleistocene era horse from the Yukon area. However, it has yet to complete the genome sequencing for any Ancient South American horses or for Ancient North American horses from other regions or from the Holocene era (beginning roughly 12,000 years ago). Completing such genetic work is critical. As scientists were only able to sequence the human genome as recently as 2003, and the equine genome (of a domestic Thoroughbred mare) was first mapped in 2007, much of the territory surrounding the field of equine genetics is still relatively uncharted. Ernest Bailey and Samantha A, Brooks offer an example that humorously illustrates Western science's learning curve in this area of their book titled Horse Genetics:

... one of the great surprises from sequencing the genome was the discovery that most of our DNA does not code for genes. For a brief time, people simply jokingly referred to such DNA as junk! We just did not know what function it might serve. Since then, we have learned that almost all DNA is transcribed; that is, it is read and used to make corresponding RNA molecules.  

Therefore, although I originally planned to genetically compare many of the horses at Sacred Way Sanctuary to those horses that roamed the Americas before the last extinction period (roughly 11,000 to 13,000 years ago) by running their genetic samples against such genome sequencing results, I will be unable to do so at this time since this work has yet to be completed. In order to address this issue, I have started the process of locating an equine genetics team that would be interested in performing such work, as well as securing the funding to support such work.

159 ibid., 10.

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3.1 Need for an Indigenous Research Paradigm

Despite much of Western academia’s conviction that its research methodologies and methods are without bias, the prejudice that Indigenous Peoples across the globe have endured at the hands of Western academia as a result of the dominant Eurocentric and colonial paradigms that are in place prove otherwise. One such example involves the Hawaiian and other Polynesian cultures. Despite “cultural evidence documenting a purposeful and orderly migration from the central Pacific islands to Hawai‘i in a stepwise fashion,” the dominant Western academic culture chose to support and promote a theory brought forward in the 1950s, which claims that the “migration throughout much of Polynesia, including Hawai‘i, was accidental.” Shawn Malia Kanaʻiaupuni further explains this in the following statement:

His theory of accidental migration was much more palatable than intentional migration at a time when the Western world had an understanding of measuring latitude, but no reliable measure for determining longitude... It was unfathomable that Native Hawaiian navigators may have solved this scientific problem before the invention of the chronometer.

It was only after a Hawaiian canoe successfully retraced the route across the Pacific using solely ancient techniques, that Western science began to recognize that “Native Hawaiians [had] mastered the science of navigating across the world’s largest expanse of ocean long before the Western world was able to overcome the longitude problem.” The following quote in Laura Parker’s article titled “A Hawaiian Canoe Crosses the Oceans, Guided by Sun and Stars” provides background regarding the construction of this canoe:

The canoe, known as Hokuleʻa (“star of gladness”), was built in 1975 by the Polynesian Voyaging Society to promote Hawaiian indigenous culture, in particular the voyaging and navigational traditions that brought Polynesian settlers to the Hawaiian archipelago. Its inaugural voyage in 1976, from Hawaii to Tahiti, was a 2,500-nautical-mile journey.

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161 Wilson, Research is Ceremony.
162 Smith, Decolonizing Methodologies.
164 Ibid.
165 Ibid.
166 Ibid.
This Eurocentric paradigm was present in every part of the world where imperialism existed and colonization occurred. Linda Smith offers the following summary:

There is one particular figure whose name looms large, and whose specter lingers, in indigenous discussions of encounters with the West: Christopher Columbus. It is not simply that Columbus is identified as the one who started it all, but rather that he has come to represent a huge legacy of suffering and destruction ... But there are other significant figures who symbolize and frame indigenous experiences in other places. In the imperial literature these are the ‘heroes,’ the discoverers and adventurers, the ‘fathers’ of colonialism ... In the Pacific, for example it is the British explorer James Cook, whose expeditions had a very clear scientific purpose and whose first encounters with indigenous peoples were fastidiously recorded ... for many communities there were waves of different sorts of Europeans: Dutch, Portuguese, British, French, whoever had political ascendancy over a region.\(^{168}\)

In the case of the Americas, those who were responsible for initially colonizing “The New World,” were men who had survived *La Reconquista*, a brutal conflict between Muslims and Christians that had lasted for almost eight hundred years in the Iberian Peninsula — today’s Portugal and Spain. David Walbert’s explains this further on the LEARN NC website:

The [conquistadores] in short, were the perfect men to cross a dangerous ocean and conquer a ‘New World’ of dense uncharted forests, tropical diseases, and hostile heathens. They were devoted to God, king, and queen, they were tough, and they were eager for wealth and glory. And after 1492, with the *Reconquista* complete, they were in the market for a new crusade. Conveniently enough, Christopher Columbus gave them one.\(^{169}\)

Walbert describes the mindset of the conquistador as follows:

The men who fought in the *Reconquista* were convinced of their superiority to their enemies who had rejected Christianity, and they developed rules of war based on that superiority — including the right to enslave the people they conquered.\(^{170}\)

It is important to note that the concept of slavery was not new for those who came to conquer the Americas, as they had already been affected by it for centuries. William D. Phillips, Jr. offers the following summary in *Slavery in Medieval and Early Modern Iberia*:

Slavery was present in the Iberian Peninsula from the beginning of recorded history. It was prominent in Roman times and in the early Middle Ages under the Visigoths. The Muslims

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\(^{168}\) Smith, *Decolonizing Methodologies*, 21-22.


\(^{170}\) Ibid.
maintained a slave system in Iberia as long as they held territory there. The medieval Christian kingdoms of the peninsula all had slaves and laws governing them, and slavery continued in early modern Spain and Portugal before declining and dying out in the eighteenth century. 171

By the late 1400s, both the Christian and Muslim cultures were long accustomed to slavery and fighting wars “in the name of God.” However, the concept of “religious wars” was not something generally experienced throughout North America. Deloria, Jr. addresses this topic within his book titled The World We Used to Live In: Remembering the Powers of the Medicine Men.

Regarding themselves as unique, [individual tribes within the Americas] rigorously followed the commands of the spirits as they experienced them over countless generations and recognized that other peoples had the same rights and status as themselves. So the idea of quarreling over the traditions by which they lived was felt to be absurd. Religious wars, then, were simply inconceivable, and while they may have fought ferociously over hunting and fishing grounds or launched hostilities in vengeance, the closest they ever came to combat over beliefs and practices was to find medicines – powers – that could negate the medicine and power possessed by other peoples. 172

Indeed, Chief Joseph of the Peoples now known as the Nez Percé was recorded as having said the following regarding why he banned Christian missionaries from their lands:

They will teach us to quarrel about God, as Catholics and Protestants do on the Nez Percé Reservation [in Idaho] and other places. We do not want to do that. We may quarrel with men sometimes about things on earth, but we never quarrel about the Great Spirit. We do not want to learn that. 173

Although much of Western academia does not accept that there is a connection between past prejudices and present day academic research, writing, and teaching practices, “What is often overlooked is the role that research has played as a tool of colonization.” 174 Smith expands upon this:

Research is one of the ways in which the underlying code of imperialism and colonialism is both regulated and realized. It is regulated through the formal rules of individual scholarly

172 Vine Deloria, Jr., The World We Used to Live In: Remembering the Powers of the Medicine Man (Golden, CO: Fulcrum, 2006), xxiii.
disciplines and scientific paradigms, and the institutions that support them (including the state).  

Battiste (2008) echoes this viewpoint on page 503 of her paper titled Research Ethics for Protecting Indigenous Knowledge and Heritage: Institutional and Researcher Responsibilities:

Most existing research on Indigenous peoples is contaminated by Eurocentric biases. Ethical research must begin by replacing Eurocentric prejudice with new premises that value diversity over universality.  

Likewise, Medin, et al. (2014) directly speak to the effect that gender, culture, and the lack of diversity have within Western Science on page 1 of their article titled Point of View Affects How Science is Done:

[Gender and culture] influence what we choose to study, our perspectives when we approach scientific phenomena and our strategies for studying them. When we enter the world of science, we do not shed our cultural practices at the door.

Medin, et al. (2014) provide compelling examples on pages 1-2 regarding the way in which cultural and gender bias has affected research in the field of evolutionary biology:

Despite popular images of Jane Goodall observing chimpanzees, almost all early studies of primate behavior were conducted by men. Male primatologists generally adopted Charles Darwin’s view of evolutionary biology and focused on competition among males for access to females. In this view, female primates are passive, and either the winning male has access to all the females or females simply choose the most powerful male. The idea that females may play a more active role and might even have sex with many males did not receive attention until female biologists began to do field observations … Likewise, Japanese primatologists ‘gave more attention to status and social relationships, values that hold a higher relative importance in Japanese society.’

The paradigms and research methodologies put forth by Western academia have led us to where we are today with regard to the history of the Indigenous Peoples of the Americas and their relationship with the horse. We have arrived at a place where all future scientists, paleontologists, historians, anthropologists, zoologists, and archeologists are taught “the Western academic truth” beginning at a very young age. This version of history is reinforced through all

175 Smith, Decolonizing Methodologies, 8.
media forms. By the time that these individuals reach adulthood, it is virtually impossible for them to see outside of the dominant Western cultural paradigm with regard to this topic.

The discovery of recorded evidence connecting the horse and humans within the Americas prior to first contact goes back to 1895, with archeological work done in the Yucatan by Henry C. Mercer. Although these remains were not scientifically dated, he concluded that they must have been from modern horses based upon the predominant theory at the time. Mercer recorded the following in his work titled *The Hill-Caves of Yucatan, a Search for Evidence of Man’s Antiquity in the Caverns of Central America*:

European horses must have been cooked and eaten in the caves of Sayab, Lara, and Chekt-a-leh since the fifteenth century, to account for the fragments of bone and teeth discovered there; for we find no reason for supposing that the people of Yucatan knew the American fossil horse, or scattered its remains in late portions of their culture-layers.\(^{177}\)

More than a century later, a statement by Dr. John Clark, Director of the New World Archeological Foundation, as provided on the *FairMormon Answers website*, shows that despite technological advances that allow for the accurate dating of fossils, past assumptions still prevail. He describes what has occurred in his experience at Pre-Columbian (before AD 1500) archeological sites when horse bones are discovered. He states:

The problem is archeologists get in the same hole that everybody else gets in. If you find a horse – if I am digging a site and I find a horse bone – if I actually know enough to know that it is a horse bone, because that takes some expertise – my assumption would be that there’s something wrong with my site. And so archeologists find a horse bone and say, “Ah! Somebody’s screwing around with my archeology.” So we would never date it. Why am I going to throw away $600 to date the horse bone when I already know [that they’re modern]?\(^{178}\)

As this dominant culture version of history has been - and continues to be - taught to all students who have matriculated or are matriculating through the United States school system, it has also affected Native Peoples. The following is a portion of an interview with Suzan Harjo, a Cheyenne and Hodulgee Muscogee woman who is described as a “poet, writer, lecturer, curator, and policy advocate who has helped Native Peoples recover more than one million acres of land


and numerous sacred places." Ms. Harjo was asked the following question in an interview:

"Columbus was just 'a man of his times.' Why are you so critical of him? Why not look at the positive aspects of his legacy?" Her answer was recorded as follows:

What are those "positive aspects" of the Columbus legacy? If we are talking about the horse, yeah, that's good. We like the horse. Indians raised the use of the horse to high military art, especially among the Cheyenne people and the tribes of the plains states. Was that a good result of that invasion? Yes. Is it something we would have traded for the many Indian peoples who are no longer here because of that invasion? No.

It is possible that Harjo does understand an alternative history of the horse that is aligned with her People's TK and she is protecting it or the interview setting does not meet the cultural protocol requirements necessary to pass sacred knowledge forward. However, it is also possible that it simply was not handed down to her or that the predominant culture's training did the job intended.

3.2 Methodology

In an attempt to avoid undue influences from such biases, I utilized an indigenous research paradigm and Critical Indigenous Research Methodologies (CIRM) to perform this research. As explained by Brayboy et al., CIRM is defined as follows:

CIRM [is] an overarching line of thinking about methods and philosophies, is rooted in indigenous knowledge systems, is anticolonial, and is distinctly focused on the needs of communities … CIRM is rooted in relationships, responsibility, respect, reciprocity, and accountability... Research must be a process of fostering relationships between researchers, communities, and the topic of inquiry.

Jo-Ann Archibald includes a variation of this theme, which she learned from her work with First Nations Elders, in her book titled Indigenous Storywork: Educating the Heart, Mind, Body, and Spirit:

The Elders taught me about seven principles related to using First Nations stories and storytelling for educational purposes, what I term storywork: respect, responsibility,
reciprocity, reverence, holism, interrelatedness, and synergy ... I learned that stories can ‘take on their own life’ and ‘become the teacher’ if these principles are used. 182

In addition, as stated by Michael Anthony Hart in his article titled Indigenous Worldviews, Knowledge, and Research:

Indigenous methodologies are those that permit and enable Indigenous researchers to be who they are while they are actively engaged as participants in the research process... an Indigenous methodology implies talking about relational accountability, meaning that the researcher is fulfilling his or her relationship with the world around him or her. It required researchers to be accountable to “all my relations.” 183

The term “all my relations” is paramount in many Plains Indian cultures. It is specifically prominent in the Lakota culture, where most every prayer ends with the phrase “mitakuye oyasin,” or “all my relations,” in acknowledgement of their foundational cultural belief system that all life is connected, and that mankind is related to and literally a part of all creation. It can also be understood as a prayer for all life. To my knowledge, there is no English word or phrase that can adequately describe this concept.

Shawn Wilson offers the following explanation to show the reason Indigenous scholars have found indigenous research paradigms to be a necessary component of their academic research:

Like myself, other Indigenous scholars have in the past tried to use the dominant research paradigms. We have tried to adapt dominant system research tools by including our perspectives into their views. We have tried to include our cultures, traditional protocols and practices into the research process through adapting and adopting suitable methods. The problem with that is that we can never really remove the tools from their underlying beliefs. Since these beliefs are not always compatible with our own, we will always face problems in trying to adapt dominant system tools to our use. 184

As a result of such experiences, “Indigenous people have come to realize that beyond control over the topic chosen for study, the research methodology needs to incorporate their cosmology, worldview, epistemology, and ethical beliefs.” 185 186 Wilson goes further to explain

184 Wilson, Research Is Ceremony, 13
185 Ibid., 15
the significance of “relationality” within indigenous research paradigms. He proposes that the relationship between indigenous methodology, axiology, ontology, and epistemology be viewed not as “four separate ideas or entities” as is common in Western academic paradigms, but rather as a “circle”:

Relationality seems to sum up the whole indigenous research paradigm ... Just as the components of the paradigm are related, the components themselves all have to do with relationships. The ontology and epistemology are based upon a process of relationships that form a mutual reality. The axiology and methodology are based upon maintaining accountability to these relationships ... An indigenous research paradigm is relational and maintains relational accountability.  

As Wilson states within his article titled What Is an Indigenous Research Methodology? the concept and importance of “relationality” is one of the major differences between the dominant culture paradigm, which is built upon the “fundamental belief that knowledge is an individual entity, the researcher is an individual in search of knowledge, knowledge is something that is gained, and therefore, knowledge may be owned by an individual.” He explains the following:

An Indigenous paradigm comes from the fundamental belief that knowledge is relational. Knowledge is shared with all of creation. It is not just interpersonal relationships, not just with the research subjects I may be working with, but it is a relationship with all of creation. It is with the cosmos, it is with the animals, the plants, with the earth that we share this knowledge. It goes beyond the idea of individual knowledge to the concept of relational knowledge.  

As the purpose of my research was multi-faceted, I chose to utilize a Grounded Theory (GT) methodology in tandem with CIRM. The purpose of GT in research is to provide an “integrated and comprehensive grounded theory that explains a process or scheme associated with phenomenon.” As Birks and Mills state:

Theory as the product of the investigative process is the hallmark of grounded theory research. This theory is directly abstracted from, or grounded in, data generated and collected by the researcher.

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187 Wilson, research Is Ceremony, 70.
189 Ibid., 176-177
190 Birks and Mills, Grounded Theory, 13.
191 Ibid., 17.
For this research project, GT was applied in tandem with CIRM in order to develop an explanation as to the social behaviors and responses of both non-Indigenous and Indigenous Peoples and societies with regard to this topic. Glaser and Strauss explain what they understand to be the strengths of GT in the following excerpt:

... such a theory fits empirical situations, and is understandable to sociologists and layman alike. Most important, it works – provides us with relevant predictions, explanations, interpretations and applications. 192

As Helene Starks and Susan Brown Trinidad state within their article titled “Choose Your Method: A Comparison of Phenomenology, Discourse Analysis and Grounded Theory”:

[Grounded Theory] examines the “six Cs” of social processes (causes, contexts, contingencies, consequences, covariances, and conditions) to understand the patterns and relationships among these elements... 193

As GT “relies on theoretical sampling, which involves recruiting participants with differing experiences of the phenomenon so as to explore multiple dimensions of the social processes under study,” 194 I believe its application will enable a solid – and more unbiased - theory to be developed regarding the behavior and responses of both Indigenous and non-Indigenous societies with regard to this topic. Since the typical GT sampling size ranges from 10 to 60 people, the data collection strategies are a combination of “observation, interviews, and close reading of extant texts,” 195 and the concept of “process” is critical to both methodologies, CIRM and GT are compatible.

According to Birks and Mills, “process” is addressed in the following manner:

The concept of ‘process’ is often described as a characteristic feature of grounded theory... Emphasizing process during analysis forces you to identify relationships evident in your study arena. 196 The value of adopting process as central to grounded theory is enhanced when we broaden our conception of what we mean by the term itself. Corbin and Strauss define process as an ‘ongoing action/interaction/emotion taken in response to

194 Ibid., 5
195 Ibid.
situations or problems. Process, therefore, need not be limited to conceptions of time, phases, or stages, but can be seen as occurring in all aspects of the natural, dynamic nature of life.

In light of this, applying CIRM and GT in tandem throughout this investigation will only serve to strengthen the research being performed.

3.3 Transmitting and Receiving Sacred Knowledge:

It is important to acknowledge that there is a distinct differentiation between knowledge that is considered “sacred” and knowledge that is considered “secular” within Indigenous communities. As ancient knowledge surrounding the horse is considered “sacred,” the data gathering process for this project necessarily differs in significant ways from standard Western research practices. As Ron Eglash acknowledges in his article titled “Computation, Complexity and Coding in Native American Knowledge Systems,” “research in the knowledge systems of indigenous societies can be hampered by both cultural and technological assumptions.” It is my understanding that much of the information included in this section has not been previously published. Accordingly, in order to explain the methodologies and methods utilized within this research fully and accurately, I recognize that more explanation is necessary. It is my hope that the information within this section might enable researchers to recognize past errors, and stimulate them to correct future processes so that Indigenous protocols regarding the transmission of sacred knowledge are respected and effectuated.

As will become clear in later chapters, ancient knowledge surrounding the horse is considered “sacred” by many Indigenous Peoples in the Americas. Before colonization, Indigenous communities had distinct and precisely organized societies. These societies were responsible for carefully holding, guarding, and cultivating such knowledge. Many Native Peoples had societies that held and cultivated knowledge around hunting, medicine, and battle. Likewise, there were societies for women and others for men. Therefore, in order to be considered worthy to carry traditional knowledge regarding the horse, it was necessary for me to

198 Birks and Mills, Grounded Theory, 19.
have stepped into a number of "societal realms." For example, the reader will note that this research contains TK regarding the care and husbandry of the horse, the horse in ceremony, and the horse in war and battle. These realms are reflected here because the traditional knowledge bearers who participated in this research observed my life path, behavior, intent, and the battles I have overcome before they determined that I was able to carry sacred knowledge within these realms.

Each of the traditional knowledge bearers interviewed in this study are keepers of a portion of sacred knowledge regarding this four-legged relative. What I learned during this journey is that they were only able to gift the knowledge to me to carry if I genuinely met the original conditions for the safe transmission and acceptance of sacred knowledge. Sacred knowledge cannot be transmitted simply "for the sake of research." Each of these knowledge bearers made a personal determination regarding my status before our interview began. They also prayed and received spiritual guidance prior to passing their knowledge to me. Only at that point could they decide whether or not I would be a responsible "holder" of such sacred knowledge. Yes, Indigenous societies have broken down due to the effects of colonization. However, this does now stop serious holders of traditional knowledge from looking for the same conditions that originally needed to be met before they pass sacred knowledge forward.

The methodology regarding the safe transmission of sacred knowledge -- or knowledge that is a sacrament -- is not a "new methodology." It is an ancient methodology that was designed with the help of the Creator (God) and the Ancestors. As the aim of this research project was to tell a truthful story, to unveil such truth requires the trust of project participants. In order to garner such trust within Indigenous communities, the following steps must be taken:

1.) Differentiate the knowledge: Is the knowledge you are seeking secular in nature or non-secular (sacred)?

2.) If the knowledge is sacred in nature, you must determine which "Society" or category of knowledge keeper would be responsible for carrying such knowledge.

3.) The researcher must recreate the conditions necessary for that traditional knowledge bearer to understand that it is safe to transfer that knowledge. "Safe" means that the researcher must honor the responsibility and the "burden" that the knowledge keeper carries for The People, the Ancestors, Creator, and the relations at issue (in this case
the horse. All four of these must be addressed for successful and respectful transmission to occur.

4.) In order to create these circumstances, the recipient must be a person who the knowledge keeper considers to be qualified to receive such sacred knowledge. Once the knowledge is transferred, the recipient becomes a knowledge bearer. Therefore, he or she must have the wisdom to understand how to responsibly utilize the sacred knowledge for the benefit of The People.

Based upon the teachings that I have received from Indigenous American Elders, it is my understanding that the above steps address the correct methodology to follow when seeking sacred knowledge from these cultures. The person seeking such knowledge must recognize the sacredness of each step of the way. They must understand that such knowledge was gifted to the Peoples by Creator and the Ancestors. To try to secularize this in anyway does not show respect for the process and, therefore, it will not function. It is important to note that I am not seeking to create a methodology or method to help researchers gain access. Rather, I have spoken to Elders regarding what is required to receive and honorably carry sacred knowledge from a variety of different Indigenous American cultures. This necessarily involves many steps.

3.4 Methods

My journey with this topic did not begin in a Western academic classroom setting or in a library, nor was my education in this area componential or decontextualized.\textsuperscript{200} Kawagley and Barnhardt explain this further:

While Western science and education tend to emphasize compartmentalized knowledge which is often decontextualized and taught in the detached setting of a classroom or laboratory, Native people have traditionally acquired their knowledge through direct experience in the natural environment.\textsuperscript{201}

In keeping with the traditions of my Plains Indian ancestors, my education began with a spiritual experience I had involving a gift from an Indigenous “medicine man and woman” who lived on a New Mexico Pueblo. During a time when I was in desperate need of healing, they


\textsuperscript{201} Kawagley and Barnhardt, “Education Indigenous to Place,” 1-2.
gifted me with two horses - a red roan mare that had been trained (according to their People’s traditions) to protect others during spiritual battle - and her four-day-old paint foal. My education continued with a vision that I experienced from my Ancestors. I gained this initial knowledge through firsthand observation, the utilization of all of my senses, and other experiential learning methods. Thus, began my role as a participant-researcher. 202

Experiential learning in education is one that is prominent in indigenous cultures. James Johnson III explains, "Many protocols were not taught verbally but learned through observation. My father taught me to hunt and fish and other traditional skills through his mentoring." 203 Indeed, Indigenous Peoples also learned a great deal regarding survival and developing sustainable ways of living and being by observing animals: "The starkness of the primitive land seemed to demand it, as the people, to survive, were forced to imitate some of the ways of the animals." 204

This gift of two “spirit horses” came during a time when I was critically ill and modern medicine had no cure for me. In keeping with the traditional medicinal practices of my People, this couple had prayed to be able to help me. In response to these prayers, the man received a vision from his Ancestors with regard to my healing. He was “shown” that his pregnant mare would give birth to a paint foal, and that if the mare and foal were gifted to me in a specific manner, they could serve as powerful vessels that would aid in my healing process.

I describe the injury that I suffered during that time on page 12 of this work. The emotional, psychological, and physical injuries that I was left with were severe, and they were considered “incurable” by modern medicine. However, Indigenous communities throughout the Americas originally had traditional knowledge systems regarding healing that were effective in combating Post Traumatic Stress Disorder (PTSD) and repairing even the severest of injuries. As such avenues were available to me, I made the decision to pursue them.

Roughly two years later, when I was healed from my psychological and emotional trauma and from my physical injuries, my journey with this research topic became more intensive due to a vision that I received on a mountain known today by the dominant Western culture as “Bear Butte.” This hill, which is located in South Dakota, has been a place of pilgrimage for my ancestors for thousands of years. In this vision, I was shown a “key” that my Ancestors said had the power to expose “the great lie.” Through this vision, my Ancestors explained to me that if I would be willing to research the history of the Indigenous Peoples of the Americas and the horse and bring this story back to The People and to the world, that “great medicine” would be returned. At the time of this vision, I did not know anything about the “history of the horse in the Americas” other than what I had been taught within the United States public school curriculum. The version that I was taught is summarized succinctly in the description of a documentary titled America Before Columbus as follows: “Some 12,000 years ago, North American mammoths, ancient horses, and other large mammals vanished. The first horses in America since the Pleistocene era arrived with Columbus in 1493.” These personal experiences and events helped to shape my role as a participant-researcher.

As Battiste explains, such experiences – and the epistemologies derived from such experiences - are aligned with those of Indigenous Peoples around the world:

Indigenous people’s epistemology is derived from the immediate ecology; from people’s experiences, perceptions, thoughts, and memory, including experiences shared with others; and from the spiritual world discovered in dreams, visions, inspirations, and signs interpreted with the guidance of healers or elders.

Communication with the spiritual realm is one of the primary methods traditionally utilized by indigenous people to access knowledge. Shawn Wilson addresses this by sharing a story about an elder woman who was helping to teach a class of students about the medicinal properties of plants.

So, when the class was over I asked her, ‘How did our ancestors know that this plant could do this?’ So she threw the question back to the class. ‘So, how do you think they knew, or what did they do?’ And so the student in the class said, ‘ohhh ...’ It didn’t make sense to them that they would take the grasses and experiment and run trials. Because there in the

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205 Elders from my Plains Indian heritage taught me that the term “medicine” within Native American cultures traditionally referred to “anything that helped you to get closer to the Creator.”


forest, there’s so many varieties, and how do you know? And so her answer was, ‘It came from above.’ They were faced with certain conditions or problems that they needed solutions to, and they went and prayed for an answer, and received an answer and got direction.’

Likewise, Archibald explains in her work that, “dreams can be a source of Indigenous knowledge and they can provide guidance for indigenous research methodology.” Although I had no previous experience or “expertise” with horses, and I was not raised with any traditional knowledge regarding the way in which the Indigenous Peoples of the Americas prayed, worked, and lived with these creatures, the people who gifted me these animals during my time of need did have understanding as to their capacity to be used in healing, and they did grow up with access and exposure to their People’s traditional knowledge surrounding the horse.

As a result of the spiritual experiences I had with these creatures, the physical healings I received through them, and the clearly ancient connection some of these Elders and medicine people had with these sacred animals, it became clear to me that the relationship that my ancestors had with these horses went much deeper than the dominant Western culture understands (or is willing to admit.) Once I began to live amongst these animals in larger numbers, I was able to observe them in a more natural, herd environment. The insight that I gathered as to their mating, reproduction, and relationship habits, patterns, and instincts, allowed me to discover what I perceive to be misstatements, misunderstandings, and misinformation within Western academia with respect to this topic. Had I not, “followed in the footsteps of my Ancestors,” regarding the way in which they traditionally perceived and cared for these animals, such discrepancies would never have been apparent to me.

Semi-directed interviews with Native Elders, medicine people, scientists, and horse experts also played a key role in this research. Deborah Cohen and Benjamin Crabtree state the following about semi-directed or semi-structured interviews of their work titled Qualitative Research Guidelines Project:

Such interviews are often preceded by observation, informal and unstructured interviewing in order to allow the researchers to develop a keen understanding of the topic of interest necessary for developing relevant and meaningful semi-structured questions. The inclusion of open-ended questions and training of interviewers to follow

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208 Wilson, Research Is Ceremony, 111.
209 Archibald, Indigenous Storywork, 3.
relevant topics that may stray from the interview guide does, however, still provide the opportunity for identifying new ways of seeing and understanding the topic at hand.\textsuperscript{210}

It is important that the interviews conducted are aligned with protocol that is culturally appropriate. In order to ensure that this was done as respectfully as possible, I consulted with the Native Elders who serve on my advisory committee and asked for their guidance.\textsuperscript{211} Through this process, I was taught that I must always participate in such interaction with Native participants in a sacred manner. For me, this meant making prayers for guidance, as well as always seeking to understand the different protocols inherent to the different Nations to which the participants belonged. Although Western academia does not consider it necessary, I applied this process to both Native and non-Native participants as a sign of respect and recognition that "we are all Creators children" no matter our skin color, socioeconomic status, religion, gender, or ethnicity.

As is consistent with the principles inherent in CIRM, I spent many years conducting pre-research and developing relationships with the people who I thought might likely have been interested in participating or who expressly told me that they believed this project was important and indicated that they wished to contribute. As is aligned with indigenous protocols, each person who agreed to be interviewed was gifted with something that is culturally relevant and traditionally appropriate for such an exchange of knowledge. I use the word "exchange" here with specificity, as I have found that many of the people I interviewed had questions for me and wished for me to share with them my own research findings with regard to this topic, as well as some of the knowledge I had gathered from other Native Peoples. In such cases, we would discuss these things after their own interviews had been completed.

Where possible, I implemented triangulation. Triangulation is a research strategy that "involves getting information from multiple sources – the more agreement across sources, the more reliable and valid the information."\textsuperscript{212} In addition, wherever possible, I interviewed multiple members of particular Nations. During my pre-research process, I learned that within many Nations certain types of knowledge is passed down through specific families or "held" by


\textsuperscript{211} Loretta Afraid of Bear Cook of the Oglala Lakota People and Tom Kanatakeniatric Cook of the Mohawk Nation (Akwesasne) agreed to serve on my Advisory Committee and help me in this process.

particular individuals. Therefore, interviewing one person in a community about an issue does not guarantee that the researcher will gain an answer that reflects the Nation’s complete knowledge – or all the knowledge that they might wish to share - on a particular topic. Likewise, it may not be considered appropriate to disclose certain knowledge to those outside of the Nation or particular community circles.

3.5 Summary

If the purpose of research is to further understand, grow in knowledge, and discover truth, it is imperative that “history” is not written in a way that simply validates the worldview of a dominant culture. Likewise, it is important to recognize that “research and science are social processes embedded in politics, economics, and ideology”\(^{213}\) and that they are therefore, subjective.

With regard to this topic, any traditional knowledge that the Indigenous Peoples of the Americas wish to put forward should be seriously considered by Western academia. Likewise, accounts given by early European explorers and settlers who ventured into the mainland of the Americas only a few decades after the initial conquistadors explored the Caribbean islands and a portion of Central Mexico, should also be taken into account – even if their observations, findings, and experiences were different than those originally noted by most Spanish conquistadors in the late 1400s.

For individuals to visit small geographical areas on multiple continents and expect that what they find there would allow them to make an accurate determination about the conditions across those continents in their entirety would make little sense and would be virtually impossible to do. Imagine visiting the Channel Islands off of the coast of California and then flying straight to Los Angeles, and attempting to make an accurate determination about the fauna throughout the rest of North America, Central America, and South America. Would those observations and determinations be correct? Would they match with those of people who had ventured into other areas of the United States, Canada, Central, or South America? Would those observations match the accounts of those whose ancestors had inhabited those lands for thousands of years?

\(^{213}\) Kana’iaupuni, “Ka’akālai Kū Kanaka,” 34.
With geography and ecosystems as expansive and varied as that of the Americas, it would be impossible to come to a conclusion that would withstand the test of further exploration and research. However, the equivalent of this occurred in the case of the history of the Indigenous horse of the Americas and its relationship with many of the original inhabitants of what we know of today as North, Central, and South America.

In an attempt to avoid such undue influences from cultural biases, Critical Indigenous Research Methodologies (CIRM) was applied in tandem with Grounded Theory (GT) to reconstruct a more accurate history of the horse in the Americas, as well as provide an explanation of how we “got to this place” within academia with regard to this topic. Likewise, qualitative methods such as participant observation, semi-directed interviews, analysis of historical, academic, and scientific records, as well as discussions with other Indigenous Peoples, will allow for the respectful collection and inclusion of cross-cultural knowledge attained from both Indigenous and non-Indigenous sources. In addition, a number of methods that are critical to the successful application of GT will form the backbone of this project. Included among these are the coding and categorization of data throughout the project, concurrent data generation or collection and analysis, writing memos, theoretical sampling, and constant comparative analysis.

At the completion of this investigation, the available knowledge can be placed upon the table and evaluated with equal weight in order that prior assumptions and any racial bias from earlier times may be recognized, rejected, and discarded. Once these steps have occurred, the true history of the horse in the Americas will be free to emerge.