Blackfoot Blogs and Boutique Languages

Eldon Yellowhorn (*Otahkotskina*)

Blackfoot, according to all indicators, will be a casualty of the mass extinction of Indigenous languages in this century. Stabilizing it to ensure its future is the chronic challenge facing Blackfoot speakers, who still mainly rely on the oral tradition much like their ancestors. Of course, speech is only one mode of communication and the graphic tradition that developed on the northern plains remains vibrant today, albeit as design elements on jewellery or as logos for products and businesses. Blackfoot became known to the world through fur traders, who made first contact with the people, and others who followed in their wake (Glover 1962; Grinnell 1892; McClintock 1910; Yellowhorn 2006, 86). Some later learned their speech and in the process introduced writing in the mode of English (Belyea 2015, 20). Since then it has been a language in decline due to historical calamities, such as epidemic diseases and colonization (McClintock 1930). Today we face the real prospect that Blackfoot has no future due to the influence of communication technology and popular culture. Thus, avoiding that scenario will require innovative thinking about learning the language and who speaks it.

Looking Back

Ancient Words

Blackfoot has its roots in the language spoken by the first people who occupied the Saskatchewan River basin during the terminal Pleistocene. After the Ice Age, as the founding people claimed the lands newly thawed from the continental glaciers they constituted a small population in a geographically expansive homeland (Brumley 1975, 1976; Forbis 1982; Frison 1991; Wormington & Forbis 1965). Through isolation, distance and time, languages once mutually intelligible grew dissimilar though a common grammar still structures their speech. We still hear echoes of that language when Blackfoot speakers express the presence of inclusive and exclusive modes of indicating the first person plural, or "we." Thus the mother tongue of Blackfoot likely generated several daughter languages, each of which preserved that antique syntax.

As the people settled in their homeland in the upper reaches of the Saskatchewan and Missouri rivers, Blackfoot became a distinct language on the northern plains in the shadow of the Rocky Mountains (Ewers 1958). Native speakers recognize mutually intelligible dialects, spoken among Piikani, Amskapipiikani, Kainai and Siksika, though they intuitively adjust to the nuances. From its earliest days the oral tradition was the main mode of language transmission between generations and conversation between people (Bullchild 1985; Wissler and Duvall 1909), which wrought change through evolution and geographical remoteness.

Graphic Traditions: Rock, Paper, Brushes

Representing Blackfoot within a graphic tradition began in ancient times and consisted of combining memories with mnemonic symbols that carried information to make them readable (Keyser 1977, 16-80). However, due to its nature, estimating its chronological structure remains elusive. No method exists to date the lines incised on the rock surfaces because sandstone is more susceptible to natural erosion than granite. Although the organic ingredients of ochre paint can be subjected to radiocarbon dating, the dilemma arises from the ethics of defacing pictographs in order to arrive at an absolute date. Nevertheless, no more accurate or durable portrayal of those old days exists than rock art. When

Blackfoot men painted images on hides for their wintercounts, they were practising a custom that had deep roots in their culture (Raczka 1979, 6-9). While the author/artist related the precise details of a narrative using standardized symbols circulating in his culture, his story made them comprehensible. Knowledgeable readers could interpret the pictograms that were transmitted within the stories since their regular appearance on rock surfaces, portable art and tipis made them familiar. Over time their graphic depictions became very abstract as they gained widespread agreement on their meaning.

The lasting impressions of the Blackfoot graphic tradition appear under the rubric of rock art in the archaeological literature (Brink 1986; 2008; Keyser 1977), wherein they are labelled pictographs if they are painted onto a rock surface or petroglyphs when incised. Archaeologists who try to decipher their meaning place them in the discrete categories of ceremonial or biographic art (Keyser and Klassen 2001, 59). Ceremonial art reflects the ritual life of the artists whereas biographic art narrates important events and lived experience. Ceremonial art, for example, is a mature tradition that is most evident on tipi designs, which have well-known elements blended with distinctive impressions related to the owner's vision. An example of ceremonial art is a painted image of thunderbird, which in Blackfoot mythology imparts a meaning of summer or the season when thunder is heard. It illustrates the structural metaphor of seasonality. Such a motif conjures imagery told in the story about the conflict between thunderbird and raven as to who would reign over the land. Since neither could claim absolute victory, the truce that ended the battle of the birds resulted in the bicameral year. Summer belongs to thunderbird while raven rules the winter season.

Blackfoot tipis are famous for their ceremonial art, which express the owner's unique signature blended into the larger cultural understanding of graphic symbols. Where tipis touch the earth is the border between actual and symbolic. Rising from the illustrated world at the base is the sky country revealed at the apex where the circles stand in for the star people. Typically two specific families of star people, as naked-eye astronomers referred to constellations in Blackfoot, adorn the smoke flaps (Figure 1). Circles drawn in a cluster represent Miohpokoiksi, or the Lost Boys (aka the Pleiades), whereas a line of circles indicates *Ihkitsikam*, or the Seven Siblings (aka the Big Dipper) constellation. Each family has a specific narrative that begins on earth and explains how they reached the sky country, and why they cross the sky country as they do with the seasons. While these adventure stories contain much intrigue and dynamic tension, they also contain layered meanings. Their entertainment value makes them memorable, but embedded in these yarns are calendrical devices based on star lore. Such knowledge gave people control over planning their annual round for harvesting the country foods that were their staples and scheduling their ceremonial observances. Between the earth and sky displayed on a tipi is the space that people filled with the unique spiritual revelations they saw in their visions. Using their graphic tradition they drew the narratives inspired by a partnership with a particular spirit. While the images are the main elements of the story, they also used colour to convey meaning.

Biographic art relates actual events in the life history of the artists, especially their exploits in war. Whereas rock art generally eludes chronology, there are nonetheless trends that make some statements possible. Blackfoot historians make use of two broad categories that they refer to as the Dog Days (Brink 1986; Reeves 1983) and the Horse Days (McMillan and Yellowhorn 2004, 222). Horses transformed Blackfoot culture into one that celebrated the deeds of their warriors (Ewers 1955; 1958). Thereafter, graphic depictions began to emphasize personal histories over their ceremonial life and spiritual relationships. Moreover, memorializing a life story that portrays certain material culture, such as

guns, could not appear in the Dog Days. Biographic imagery depicted in both eras show battles between enemies, but the material culture of combat changed with equestrian warfare. Launching spears or firing arrows from bows while on horseback, generally precede those panels where mounted warriors have guns. These pictograms contain objects (guns) and animals (horses) that are associated with the colonial era when this type of warfare became chronic (Ewers 1955). Perhaps the last examples of biographic art are the petroglyphs made by Bird Rattle (*Pi'kssawanaan*), a Piikani elder from the Blackfeet Reservation in Montana, of his cars (*otsinakasimiksi*) in 1924 (Klassen, Keyser and Loendorf 2000, 189). Just as pictographs of horses ended the Dog Days, his portrayal of automobiles announced the arrival of a new era in Blackfoot history. By then his people were several decades removed from the history embodied by the rock art that was the legacy of his ancestors.

Figure 1. The apex of a typical Blackfoot tipi symbolizes the sky country and circles on the smoke flaps portray two important families of star people. Bunched circles represent the Lost Boys (the Pleiades) and the line of circles depicts the Seven Siblings (Big Dipper) constellation.



Writing Blackfoot

While Blackfoot people were struggling to capture their changing lifeways of the Horse Days within their own graphic tradition, a new mode of writing was about to enter their language. Like many Englishmen of his day. Peter Fidler came to know Cree, Dene and Blackfoot people through his work for the Hudson's Bay Company as a fur trader and surveyor (Church 1997, 79-84; Yellowhorn 2006, 86). Unlike many of his contemporaries he was adept at learning the languages of the people he met (Belyea 2015, 35). During his many years of service he lived with Cree and Dene people and learned their speech. When the company sent him to its western commercial outposts in Blackfoot country he availed himself of the opportunity to learn to speak the language of the land. He spent the winter of 1792/93 with a Piikani band camped along the Oldman River where it spills out of the Rocky Mountains, just west of the Porcupine Hills. His journal entry on December 31, 1792, describes the view he saw south of where he stood. Fidler scanned the panorama before him and referenced, "a high cliff on the Eastern edge of the Rocky mountains ... called by these Indians Nin nase tok que – or the King ... being the highest known place they know of (Belyea 2015, 99). His attempt to write *Ninastakoo*, or Chief Mountain, using the English alphabet, introduced the idea of writing Blackfoot words. His remarks about O mock cow

wat che mooks as sis (Swan's bill), which became Devil's Head, Spitcheyee (Highwood) River, Na ma kay sis sa ta (Bow) River, Ee too ki up (Sheep) River and Stommix e pis con (Bull pound) River, which became Pekisko Creek, capture the Blackfoot cognitive geography that informed their travels. Fidler scribbled these Blackfoot names of geographical features, such as rivers and mountains, in his journal as he went. Thus, he informs us that toponyms used in the homeland of the "Pekanow, or Muddy river Indians," still guide travellers today.

Fidler used his literacy to introduce his host, Sakatow, and the other Piikani men, such as Akkomoki, to the historical record. They shared with him their geographical knowledge, which he incorporated into the maps he composed of the land south of Ninastakoo. Although Fidler's visit came and went, and produced only an historical anecdote known to a few researchers, his efforts to write the names and toponyms of his hosts make them the first Blackfoot words presented in the Roman orthography of English

in the Roman orthography of English.

Written Blackfoot remained a confounding scrawl in a fur trader's journal until Reverend John William Tims, who was a minister with the Church of England stationed at Siksika in the 1880s, published his dictionary in 1889. Although his missionary colleagues had created a syllabary for Cree and some had tried to adapt it to Blackfoot, Tims used the Roman orthography of English for his compilation (Tims 1889). No standardized linguistic alphabet existed then and Reverend Tims had no specific training in linguistics, so he relied on his vernacular understanding of literacy. His naïve effort does create some confusion in pronunciation but he did represent most of the consonants accurately, though the glottal stop was unknown to him. Moreover, he included 'e' and 'u' in his writing and he did not know how to represent voiceless vowels. Since few people outside of missionaries and teachers possessed any interest in learning Blackfoot his attempt to systematize the language fell to obscurity.

Exactly one century after Reverend Tims published his dictionary, another Blackfoot-English dictionary appeared and the comparisons could not be more evident (Frantz and Russell 1989; 2017). By 1989, when Donald Frantz and Norma Jean Russell published their volume, the discipline of linguistics had matured to include analytical methods and a standardized phonetic alphabet. Whereas the earlier attempts at writing Blackfoot were episodic and idiosyncratic, this version began in an academic setting where Dr. Frantz attended graduate school. His co-author brought a native understanding of the language and a professional background in education, so the final scholarly product introduced literacy as complementary to Blackfoot speech. Writing appeared first as a benign force through which to appreciate the language. Given that the fractures in our allegiance to our mother tongue is also a crisis of modernity, a graphic version of Blackfoot seemed a modern solution to the looming mass extinction of Indigenous languages. It offered a method for preservation, albeit in a completely novel medium (see for example Zaharia and Fox 1995).

Writing is not without its critics, who point out that the oral tradition is the legacy that Blackfoot speakers value. Passages on a page do not capture the essential traits of the spoken word, such as intonation, accent, cadence or pronunciation. Furthermore, due to the nature of Blackfoot syntax we must write phrases rather than words, which can be cumbersome. Thus, writing remains a linguistic novelty despite the investment of talent and resources, and five decades of research with this graphic tradition has not produced any new Blackfoot speakers. Moreover, the main goal of writing has to be mass literacy, and nowhere is that a reality at a time when the oral tradition is in decline. We are now at the point of considering whether the critical mass even exists that will keep this language vibrant. While writing Blackfoot holds potential, the real challenge is to make it the basis of conversation in daily life, which is where language happens.

Where We Are

New Media

Despite the historical and social forces affecting Indigenous peoples, such as colonialism and assimilationist social policies, Blackfoot was the language of community discourse on the reserves in Canada as the second half of the 20th century began. Parents raised their families in Blackfoot, and the home was its incubator, but public gatherings reinforced its prominence because many people spoke no English. Yet none of those conditions exist today and instead we are contemplating whether Blackfoot is a language without a future. If we are wondering how we arrived at this point, we have to look back to the late 1950s when the electrical grid reached our reserves. Electricity brought modernity into our homes in a way that colonialism, education and literacy never could. Modern times actually spoke to us through new media because radios, televisions and record players became common fixtures of the household. Their monopoly in filling the soundscape of the home meant that all the popular culture of the 1960s was broadcast in English. When a younger generation yearning to be modern tuned in to the radio signals crackling in the ether above their reserves, they never heard any Blackfoot spoken. This left the impression that our mother tongue was not a modern language and so its use waned at the same time that people started leaving their reserves and adopting city life.

Despite its corrosive influence, the solution to this crisis is not to cut the electrical cord and live off grid. Instead, embracing new media offers to restore vibrancy to Blackfoot in a way that writing could not because they promote the oral tradition. We can also see the imprint of their transformative value in the powwow music industry. Until the invention of cassette recorders in the late 1960s, fans of this genre could only hear it at community celebrations. Whereas singing was an ephemeral experience that ended with the event, these portable recording devices started capturing the sounds of the powwow on a medium that could replicate the transient happening. Cultural entrepreneurs recognized the market potential of their music, which they brought to recording studios and returned with professional quality products. Although compact disks (CDs) replaced cassette tapes, the market for powwow music demonstrated the power of new media and singers finally being able to profit from their intellectual property. Since they can shape the way we appreciate traditional music, they may have the same impact on language.

Tape recordings of powwow music also captured the intangible qualities of the event such as mood and memory. Likewise with the spoken word, which relies on cadence, accent, intonation and pronunciation to express Blackfoot thought in a way that writing never could. Videography, for example, makes possible compositions based in Blackfoot that mix picture with sound to produce narratives in animation or documentary formats. Seeing and hearing these productions on television and radio has an important psychological function in convincing younger people that Blackfoot is a modern language that is flexible enough to keep up with the times and technology. Despite their potential to add diversity to the airwaves, culturally specific products will not break up the English language monopoly in broadcast media. Indigenous languages, including Blackfoot, were shut out of the 20th century media revolution but we are at the start of a new revolution and language can be part of its origin story.

Social Media and the Anti-Social Age

Social media are emergent properties of our hyper-electrified age and they will define the cultural landscape of the 21st century because, unlike the old broadcast media, they do not adhere to a schedule. When a show appeared on television

it had a time slot and viewers tuned in then to watch. Once it ended it might be telecast another time but that could be months later. However, with social media platforms viewers can see it repeatedly and immediately. There is no time for a schedule, only instant gratification.

Social media will also disrupt the way we relate to language because moving from analogue to digital media will make access to linguistic products more democratic. In addition to liberating viewers from a schedule, they will break the English language monopoly of the soundscape because there is an audience for spoken Blackfoot programs. Production costs, which were often the main obstacle to creating space in the media sphere, are much reduced because digital platforms such as blog posts or podcasts only require a recording device, a microphone and a connection to the internet. Blackfoot blogs, once posted, remain hot and online for their intended audience to access anytime. Such products might include Blackfoot language apps, web-based programs or interactive video games.

Social media though are not just about positive engagements, and some early problems are evident. They have also been called anti-social media because electronic devices isolate and alienate the user, even in a crowd, while giving the illusion of connectedness. In addition to that, language is about conversations, which is not a natural by-product of social media applications. Viewing a thousand hours of Blackfoot programming is no substitute for a hundred hours of dialogue. Trying to learn Blackfoot from an app is like trying to have a conversation with an echo. Cyberspace can also affect gender and social relations because the online experience for women is not identical to the conditions that men encounter. Nevertheless, and just like electricity, going offline is not the solution.

Looking Forward

Electronic Pictographs: Logos, Icons and Emojis

Although the Blackfoot graphic tradition only alludes to a by-gone era, there is a modern analogue to it that also employs picture writing. Electronic entities employ symbols that convey meaning to the world or to an individual, but they also bring us back to the days of our ancestors who communicated through pictograms. Thus, logos become the contemporary mnemonics for products, brands and companies while icons occupy the real estate of computer screens and smart phones as shortcuts to applications. Since emojis send messages designed for specific readers who interpret the meaning based on context, they employ the same principle as pictographs. However, the world understands these emblems of commerce or personal design irrespective of language. Their intent is to create familiarity through ubiquity and repeated interaction so that the symbol crystalizes meaning in the public mind. Thus, they create a certain type of literacy but not the kind that encourages conversation in Blackfoot or any other language. However, the old graphic tradition is a fertile source of designs for logos and ornaments.

Citizen Linguists and Boutique Languages

Once upon a time people simply spoke Blackfoot. But today the pressure is about making time to speak it to avoid becoming that linguistic island sinking into a sea of English. If the current generation does not want to be the last to hear and speak their mother tongue, they have to grow the population of speakers at a time when dwindling is the better descriptor. Certainly experimenting with new media and novel technologies that complement the oral tradition in order to maintain its vibrancy is possible, but they are expensive and require specialized skills and knowledge. Layered on that is the chronic demand to make new words or add new meaning to phrases to keep apace with changes in the

larger world. However, this crisis of modernity is like the paradigm shift our ancestors experienced, because adopting horses forced them to reconsider their traditional culture. Thus, accommodating that novelty disrupted their worldview and forced them to recognize a new era they called the Horse Days. Similarly, Blackfoot speakers have reached a point where rethinking the ambit of native language is necessary.

First, we have to agree that speaking Blackfoot for the sake of nostalgia is not a logical goal and therefore it requires a wider perspective. Instead of isolation to a few communities in Alberta and Montana, its future will be about recruiting speakers from the general public that now lives in traditional Blackfoot country. Although that might seem a daunting task or perhaps too ambitious, it should at least be an option. Realizing such a lofty goal is not so far-fetched. Blackfoot is already part of the high school curriculum where it is taught alongside other modern languages, such as French, and there are computer programs that help people gain fluency in them. So the notion that only Blackfoot people can speak Blackfoot may become an artefact of our time.

Boutique languages will describe the access to machine learning that technology will give users. Visitors and residents alike will have the option to gain fluency in the speech endemic to specific geographical regions. Thus, choice will alter the way people relate to small languages that must thrive in a homogenous linguistic environment in the same way a small business must succeed where retail chains or online shopping dominate the experience of modern shoppers. Whereas the franchise offers choice, price, glamour and brand that cater to conspicuous consumption, the boutique builds loyalty because customers desire a different and unique product. Convenience is the hallmark of ubiquitous services and so boutiques will never replace or rival their larger competitor, but a smaller consumer base might yearn for something different such as ethically sourced and fairly traded products. Shoppers who use their economic power to support their causes respond positively to local operations that give them that choice.

Likewise, Blackfoot will never replace English, but consumers of language learning products will gain access to a unique and different worldview that was inspired by the land and sky of the northern plains. Just as considering the makers of material goods in the retail equation generated ethical consumerism, learning to speak Blackfoot will create the citizen linguists, who, like ethical shoppers, are the average folk using their social capital to foster a preservation ethic. Reaching out to the wider public to recruit new speakers will be similar to small businesses advertising for new customers. Hence, the retail boutique is to the shopper what a boutique language is for a citizen linguist.

Artificial Intelligence and the Blackfoot-Speaking Robot

Serendipity played a role when I began my work on preserving Blackfoot using videography and animation. Making and uploading Blackfoot content to the internet was a novelty for me, but I now consider its presence in cyberspace as essential for ensuring its future. Recruiting new speakers for Blackfoot cannot rely solely on face-to-face instruction because the pool of potential teachers is extremely shallow and elders who are fluent can also tire easily. Languages classes and Blackfoot immersion programs are the classic strategies for teaching neophyte learners, but their effectiveness is episodic and few opportunities exist to exercise their lessons away from the venue. Only new technology, such as artificial intelligence (AI), will provide that capacity to reach the crowd. Since machine learning and indigenous languages is novel research in an area previously unexplored for this purpose, I can only describe my current research. In collaboration with computer science professor, Dr. Angelica Lim, we are employing artificial intelligence and robotic technology to design a chatbot that

makes typing, text and keyboard communication adaptable for Blackfoot. Our second line of research involves conversation with interactive robots that will aid language learners to hone their skills for pronunciation, accent and cadence. The final line of inquiry involves text-to-speech technology to create speak-and-learn devices, such as Siri, that can speak out typed Blackfoot phrases, which will also advance the case for literacy.

Thus, investigating the potential of deep learning techniques that use neural networks that are sensitive to Blackfoot speech and automatically recognize correlations between speech, sound and text will be a major step toward the goal of stabilizing and revitalizing Blackfoot. This could be a model for other Indigenous languages. Just as computer voices and robots learn to speak and interact in English, since that is the language of their maker, they will have a comparable function in Blackfoot. Designers of open source software will create the kernel that language learners can download to their hardware, whether that is to a conventional computer program or to a synthesized voice in a Blackfootspeaking robot. Eventually, these linguistic bots will become sophisticated enough to search online content and recognize Blackfoot speech. They will learn to analyze it and to reconstruct its vocabulary and grammar in order to respond to voice commands or have real-time conversations with humans. Their source for accessing spoken Blackfoot will be all the language products, such as apps and videos, uploaded to the internet. Although learning the distinction between the inclusive and exclusive modes of the first person plural in Blackfoot might be a challenge for a robot.

Although this is merely speculation, I can foresee a time when Blackfoot conferences will convene citizen linguists whose like-minded interest motivates them to gather for the purpose of speaking it. Their sessions might include learning techniques for creating new words for new technology, or how to translate aspects of popular culture into Blackfoot, or to how create and play video games in the language. Much of this will be accomplished with machine learning.

Final Thoughts

Indigenous languages such as Blackfoot face a looming mass extinction in this century. Since it is a crisis brought on by modern times, especially electricity and broadcast media, there has to be a modern solution. Finding space for Blackfoot will require some innovative thinking in terms of creating and maintaining the critical mass of speakers to keep it vibrant. Using the same media that brought on this crisis will be a key factor in keeping indigenous languages vibrant.

However, crises of modernity, adapting to novel circumstances and experimenting with new technology are not conditions unique to our time. We can observe these changes in the imagery found on cliffs and rocks and interpret them accurately because the graphic tradition invented for Blackfoot during the Dog Days persisted into the 20th century. We can also hear echoes of change in Blackfoot since our ancestors had to grapple with expanding the meaning of ancient words and phrases to accommodate new technology and lifeways. We can look at their example as an approach that the current generation can use to preserve the legacy of Blackfoot. Keeping the language alive is always better than extinction.

References

Belyea, Barbara, ed. 2015. *Peter Fidler: From York Factory to the Rocky Mountains*. Victoria, B.C.: First Choice Books.

- Brink, Jack. 1986. Dog Days in Southern Alberta. Occasional Paper no. 28. Edmonton: Archaeological Survey of Alberta.
- Brink, Jack. 2008. Imagining Head Smashed In: Aboriginal Buffalo Hunting on the Northern Plains. Edmonton: Athabasca University Press.
- Brumley, John H. 1975. The Cactus Flower Site in Southeastern Alberta: 1972-1974 Excavations. Archaeological Survey of Canada Paper no. 46. Ottawa: National Museum of Man.
- Brumley, John H. 1976. Ramillies: A Late Prehistoric Bison Kill and Campsite Located in Southeastern Alberta, Canada. Archaeological Survey of Canada Paper no. 55. Ottawa: National Museum of Man.
- Bullchild, Percy. 1985. The Sun Came Down: The History of the World as My Blackfeet Elders Told It. San Francisco: Harper and Row.
- Church, R.A. 1997. "Blackfeet and Fur Traders: Storm on the Northwestern Plains." Journal of the West 36, no.2:79-84.
- Ewers, John. 1955. The Horse in Blackfoot Indian Culture. Washington: Smithsonian Institution.
- Ewers, John. 1958. The Blackfeet: Raiders on the Northwestern Plains. Norman: University of Oklahoma Press.
- Forbis, Richard. 1982. "One View of Plains Archaeology in Canada: The Past Decade." Candian Journal of Archaeology 6:157-166.
- Frantz, Donald J., and Norma Jean Russell. 1989. Blackfoot Dictionary of Stems, Roots and Affixes. Toronto: University of Toronto Press.
- Frantz, Donald J., and Norma Jean Russell. 2017. Blackfoot Dictionary of Stems, Roots and Affixes, 3rd ed. Toronto: University of Toronto Press.
- Frison, George C. 1991. Prehistoric Hunters of the High Plains. San Diego: Academic Press.
- Glover, R., ed. 1962. David Thompson's Narrative, 1784-1812. Toronto: The Champlain Society.
- Grinnell, George Byrd. 1892. Blackfoot Lodge Tales. New York: Scribner's.
- Keyser, James D. 1977. "Writing-On-Stone: Rock Art on the Northwestern Plains." Canadian Journal of Archaeology 1:16–80.
- Keyser, James D., and Michael Klassen. 2001. Plains Indian Rock Art. Vancouver, BC: UBC Press.
- Klassen, Michael, James D. Keyser, and Lawrence L. Loendorf. 2000. "Bird Rattle's Petroglyphs at Writing-On-Stone: Continuity in the Biographic Rock Art Tradition." *Plains Anthropologist* 45: 189-201.
- McClintock, Walter. 1910. *The Old North Trail*. Toronto: MacMillan. McClintock, Walter. 1930. *The Tragedy of the Blackfoot*. Los Angeles: Southwest Museum.
- McMillan, Alan D., and Eldon C. Yellowhorn. 2004. First Peoples in Canada. Vancouver: Douglas and McIntyre.
- Raczka, Paul M. 1979. Winter Count: A History of the Blackfoot People. Manitoba: Friesens Book Division.
- Reeves, Brian O.K. 1983. Culture Change in the Northern Plains: 1000 B.C.-1000 A.D. Occasional Paper no. 20. Edmonton: Archaeological Survey of Alberta.
- Tims, Rev. John William. 1889. Grammar and Dictionary of the Blackfoot Language in the Dominion of Canada: for the Use of Missionaries, School-Teachers, and Others. London: The Society for Promoting Christian Knowledge.
- Wissler, Clark, and D.C. Duvall. 1909. Mythology of the Blackfoot Indians. New York: American Museum of Natural History.
- Wormington, H.M., and R.G. Forbis. 1965. An Introduction to the Archaeology of Alberta, Canada. Denver: Denver Museum of Natural History.

Yellowhorn, Eldon. 2006. "The Never-ending Journey of Anthony Henday." In *Alberta Formed—Alberta Transformed*, edited by Michael Payne, 86-108. Edmonton: University of Alberta Press.

Edmonton: University of Alberta Press.

Zaharia, Flora, and Leo Fox. 1995. *Kitomahkitapiiminnooniksi: Stories from Our Elders*. Vol. 1, 2, & 3. Edmonton: Donahue House Publishing.