

Takuśkaŋśkaŋ Čaŋnomoŋe:
THE EVERCHANGING PIPESTONE QUARRIES

SIoux CULTURAL LANDSCAPES AND ETHNOBOTANY OF
PIPESTONE NATIONAL MONUMENT, MINNESOTA

Final Report
June 30, 2004



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Prepared for

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PREFACE

Douglas Comer, Chief of the Eastern Applied Archaeology Center for the National Park Service, wrote a book about the different ways the world, its history, and its people could be observed through a small place called Bent's Old Fort National Historic Site (Comer 1996). The book was entitled *Ritual Ground* because of Comer's idea that a place can become the center of the world in many respects for various kinds of people. As such a multivocal center, the place becomes sacred to all who see their history, their lives, and their future connected with it. As a central place, it becomes and persists in the rituals of humans. Although the connections to a central place can be cosmological or rooted in historic events, the connections can be none-the-less real and vital in people's lives. In a section called "Bent's Old Fort and the Cultural Landscape of the Southwestern Plains," Comer documents how this place on the Arkansas River became connected to other places, people, and events across an enormous expanses of space and time. Like other cultural landscapes embedded in time and consequently, layered like archaeological strata, the cultural landscapes of the southwestern plains connected to this small fort have been brought into contemporary times where they are celebrated and contested in the context of National Park Service supervision and management.

Like Bent's Old Fort in Colorado, Pipestone National Monument, Minnesota is a small place that makes a big contribution to the cultural landscapes of the high plains. These cultural landscapes have been built up over thousands of years and include many Native American cultural groups and various European nations. It is a place that, for various reasons, has always been known, celebrated, and contested by those who perceive the place to be one of those central in their world, one which their people are critically connected to through cultural beliefs and rituals. It is also where the National Park Service has the responsibility of managing resources in the context of these various human connections that derive from historic and/or cosmological events.

While these two small places on the plains of North America are intimately connected through expansive cultural landscapes, they also have their own sense of cultural order, which we may term local or micro landscapes. When this project was just beginning, one of the authors of this report, Richard Stoffle, was talking with Professor Vine Deloria on another matter. When Professor Deloria heard of the Pipestone project, he noted that it was a place that had rules, which we may think of as rules of engagement; it is not a place you can just go up to and interact with.

"Our people," stated Professor Deloria, who is from the Standing Rock Sioux tribe, "would travel to Pipestone to seek materials for pipes and conduct ceremonies. After camping near by, however, we would wait for permission to proceed with these planned activities. If it did not thunder, then we would return home without either quarrying or ceremonies. If it did thunder, then we would conduct ceremonies to prepare ourselves for entering this place."

He noted that these rules had been conveyed to him by his father and other elders of his tribe. Professor Deloria shared with us how important the place was and is to him and his people as are the rules of going to and being at this place. Later, when we began to search original traveler's accounts of Pipestone we found that one of the earliest non-Indians to record his visit

to this place, George Catlin in 1836, wrote that he was told of the importance of it to the Indian people and that thunder was the sign to enter the area, and to proceed with ceremonies and the removal of pipestone material. During the many generations have come and gone since Catlin's visit, the meaning of this place and the basic rules of engagement have remain the same.

This portion of the Pipestone study began as a simple task with three parts: to review the ethnobotany literature, to interview representatives from various Sioux tribes about plant use and importance, and to record the findings in the NPS's Ethnographic Resource Inventory (ERI). The latter is a database that is being developed to help NPS managers understand what ethnographic resources are in their parks so that they can be better protect them.

This report expands beyond the original agreement by providing a framework for understanding the cultural implications of ethnobotanical resource use and management. This expansion is a response to themes discussed during the interviews, which arose as the Indian people left the main theme of ethnobotany and explained plant issues in terms of the overall meaning of Pipestone, and the historic encroachment on their ownership and control of this place. Organizing these discussions was a sense of place, rules of engagement, and a realization that Pipestone and the world have been drastically altered. Given that change is perceived as normal in Sioux culture (as implicated in the title of this report)¹, the Indian people wanted to see the past fully described as a foundation for recommendations of where to go from here. A second realization was that with all the ethnobotanical information placed in the ERI database, which is restricted to NPS managers and specific uses, the tribal governments and representatives would not have a document to review. This report, consequently, serves these unanticipated purposes.

Our University of Arizona research team is constantly humbled by the realization of how culturally central and personally essential the places and natural resources are that we study for the National Park Service and the traditional people who are culturally affiliated with parks. Still more daunting, are the roles in this process of the Indian cultural experts and park personnel. The former come to share sufficient information so that places and resources will be properly understood, but not to share more information than is needed. The threat to the resource from sharing information should not be greater than the preservation benefits derived from sharing; the fundamental confidentiality of the places and resources must be preserved. The NPS managers, in turn, struggle to learn about cultural traditions that are grounded in very different epistemologies². When multiple ethnic groups are involved, multiple epistemologies may be contradictory. With the shared information, park managers attempt to apply the guidance provided by multiple cultural experts equitably in their management decisions, and to do so within the legislative mandates of the park's establishment and the realities of contemporary society. This report serves to define the complex issues of Pipestone National Monument and to connect these directly with the personal recommendations of the tribal representatives.

¹ *Takuśkaŋśkaŋ* was explained to us as meaning 'everything changes.' Also, 'one of the Dakota gods, the moving god or god of motion (Riggs [1890] 1992:455),' further implicating the importance and centrality of Pipestone in Indian cultures.

² World view or belief systems, ways of knowing.

ACKNOWLEDGEMENTS

One never knows how they will be received when they come to a community for the first time to conduct ethnographic research. When our research team arrived in Pipestone from the Bureau of Applied Research in Anthropology (BARA) at the University of Arizona (UofA), Tucson, we found a warm welcome from the Pipestone community. We would like to thank the tribal representatives and their associated tribes, the many individuals from the community, federal and state agencies, and local institutions and businesses who opened their doors and homes to us. Everyone expressed interest in our project and shared much information that has enriched this report.

The employees at Pipestone National Monument were extremely generous with their time and interacted with us as much as possible. Our thanks to Superintendent James LaRock and Chief of Natural Resources, Kristin Legg for their enthusiasm, support, and assistance in providing the necessary facilities to successfully complete this project. Other monument personnel who made important contributions include Chief of Visitor Services, Glen Livermont, and summer employee, Lyle Noisyhawk, both of whom are members of the Oglala Sioux Nation, Park Ranger Alice Erickson, a member of the Sisseton-Wahpeton Sioux Tribe, and Betty Tellinghuisen, a traditional arts demonstrator with the monument's interpretative program.

We wish to thank the following tribes, their cultural resource officers, and other tribal representatives for their interest and/or participation in the ethnobotanical fieldwork (Table A.1). Several of these tribes were unable to send representatives, however, everyone asked for final copies of the report and to be contacted for future opportunities to participate in such studies. Four tribes (below) were able to send representatives who shared insights to various aspects of Sioux ethnobotany. Their contributions were woven within the cultural significance of Pipestone National Monument, as were their ideas for future management alternatives of the monument's cultural and natural resources.

Cheyenne River Sioux Tribe

Carl Dupree, Tribal Representative

Sisseton-Wahpeton Sioux Tribe

Joe Williams, Tribal Representative

Brian Williams, Tribal Representative (Restoration Committee)

Raymond "Chuck" Derby, Tribal Representative

Upper Sioux Community of Minnesota

Dallas Ross, Tribal Representative (Environmental Officer)

Yankton Sioux Tribe

John Stone, Tribal Representative

Tribe	Chairpersons & Presidents				Cultural Resource & Ethnobotany		
	Name	Address	Phone	Fax	Name	Phone	Fax
Cheyenne River Sioux Tribe	Gregg Bourland	PO Box 590 Eagle Butte, SD 57625	605-964-4155	605-964-4151	Carl Dupree, Representative	605-964-7554	605-964-7552
Crow Creek Sioux Tribe	Roxanne Sazue	PO Box 50 Fort Thompson, SD 57339	605-245-2221	605-245-2470			
Flandreau Santee Sioux Tribe	Thomas Ranfranz (Pres.)	PO Box 283 Flandreau, SD 57028	605-997-3891	605-997-3878	Ray Redwing, Trustee	605-997-3891	
Lower Brule Sioux Tribe	Michael G. Jandreau	187 Oyate Circle Lower Brule, SD 57548	605-473-5561	605-473-5606	Scott Jones, Repatriation Officer	605-473-5561	
Lower Sioux Indian Tribe	Ann Larson (Pres.)	PO Box 308 Morton, MN 56270	507-697-6185	507-637-4380	Ranelle Wavasha, Historical Officer	507-697-6185	
Oglala Sioux Tribe	Yellow Bird Steele (Pres.)	PO Box H Pine Ridge, SD 57770	605-867-5821 605-867-5236	605-867-6076			
Prairie Island Indian Tribe	Audrey Kohnen (Pres.)	5636 Sturgeon Lake Road Welch, MN 55089	800-554-5473	651-385-4110	Scott Doig, Dept. of Natural Resources	651-385-4165	
Rosebud Sioux Tribe	William Kindle (Pres.)	PO Box 430 Rosebud, SD 57570	605-747-2381	605-747-2905	Janet Thompson, Cultural Resource Office	605-747-2381	
Santee Sioux Tribe	Roger Trudell	110 S. Visiting Eagle St. Niobrara, NE 68760	402-857-2300	402-857-2315			
Shakopee Indian Tribe	Stanley Crooks, Sr.	2330 Sioux Trail NW Prior Lake, MN 55372	952-445-8900	952-445-8906	Jim Warren, Preservation Officer		952-496-6185
Sisseton-Wahpeton Sioux Tribe	Andrew Grey, Sr.	Old Agency Box 509, Street: Lake Traverse Reservation Agency Village, SD 57262	605-698-3911	605-698-7907	Brian Williams, Restoration Committee	605-698-0199	605-698-0198
Spirit Lake Tribe	Phillip Longie	PO Box 359 Fort Totten, ND 58335	701-766-1226	701-766-4126			
Standing Rock Sioux Tribe	Charles W. Murphy	PO Box D Fort Yates, ND 58538	701-854-7201	701-854-7299	Byron Olson, Archaeologist	701-854-2120	701-854-7229
Upper Sioux Community of MN	Helen Blue	PO Box 147 Granite Falls, MN 56241	320-564-3853	320-564--4482	Dallas Ross, Environmental Office	507-637-8353	507-637-8749
Yankton Sioux Tribe	Madonna Archambeau	PO Box 248 Marty, SD 57361	605-384-3641 605-384-3804	605-384-5687	Ladonna Ironheart	605-384-3641 605-384-3804	

Table A.1 Contact Information for the Sioux Tribes Contacted for the Ethnobotany Study (shaded sent cultural resource or other representatives).

In addition to the representatives sent by their tribal councils, we had the opportunity to work the members of the Crow Creek Sioux Tribe, Daniel and Stewart Wounded Knee. They expressed much interest in the project and were glad to have the opportunity to share their thoughts about the plants, history, and cultural significance of Pipestone National Monument. We thank them for spending time with us and sharing their observations about current management issues at Pipestone National Monument.

Our gratitude also to the other tribal members who participated in impromptu discussions with us. Cindy Peterson of the Sisseton-Wahpeton Sioux Tribe, shared her thoughts on the value of prairie plants. Jerry Flute, a consultant to the Association on American Indian Affairs, offered critical insights into the history of the monument and the surrounding area. Todd Tellinghuisen, a licensed pipestone quarrier, described the contemporary practice of quarrying and the manufacture of pipestone objects.

We also had opportunity after the fieldwork to visit with Mr. Vine Deloria, Jr., Native American author, scholar, and a member of the Standing Rock Sioux Tribe. His comments concerning the cultural importance of Pipestone National Monument to the Sioux people as well as his contributions to the preface of this report are greatly appreciated.

Several non-tribal individuals assisted us in our research of the history of the monument, and of Pipestone City and the surrounding area. Thomas Sanders, Director of the Jeffers Petroglyphs Historic Site, provided the UofA team with a personal tour of the site. He described current tallgrass prairie restoration efforts and discussed the cultural connection between the Jeffers Petroglyphs and Pipestone National Monument. The staff at the historic Calumet Inn in downtown Pipestone were gracious in the service and accommodations they provided our team and the tribal representatives. Chris Hummel and his staff at the Pipestone County Historical Society and Museum contributed copies of historical photographs and documents of the monument and town. The staff at the Little Sioux Press of St. Francis Indian Mission, St. Francis, South Dakota contributed plant-related documents; and Kenneth Higgins, South Dakota State University Professor and Assistant Unit Leader of the Northern Prairie Wildlife Research Center, sent several documents on prairie fire research and indigenous burning. Henry Gwiazda and Marilyn Finke at the National Archives and Records Administration provided invaluable assistance in tracking down survey records and maps of the original surveys of the Pipestone Indian Reservation.

STUDY OVERVIEW

The Midwest Region of the National Park Service (NPS) contracted an ethnographic team at the Bureau of Applied Research in Anthropology (BARA), University of Arizona (UofA), Tucson, to conduct a two-part study for Pipestone National Monument under Task Agreement No. 027 of Cooperative Agreement No. H8601010007 with Richard W. Stoffle and Maria N. Zedeño. Volume I contains a cultural affiliation/traditional association determination statement; Volume II, this document, is a discussion of ethnobotanical and cultural landscape data that was collected at Pipestone National Monument in June 2002 through interactions with tribal members of several Dakota and Lakota Sioux tribes. The ethnographic data, supplemented with publications, and archival and legislative documents, subsequently were entered in the NPS's Ethnographic Resource Inventory (ERI), a national database of ethnographic resources for which the agency has management responsibility.

The purpose of this study is document traditional plant use of the Dakota and Lakota Sioux as it pertains to Pipestone National Monument. Included in this report are discussions of three periods of cultural landscapes, traditional and contemporary plant use, management recommendations, a bibliography, and resource and legislative appendices. These findings are submitted to NPS as a basis for additional research, consultation, and management of the natural and cultural resources at the monument.

THE RESEARCH TEAM

Led by Dr. Richard W. Stoffle and Dr. Rebecca S. Toupal, the BARA/UA research team for the ethnobotany portion of the study included Nathaniel O'Meara and Jill Dumbauld. The team, whose backgrounds follow, participated in fieldwork at Pipestone National Monument in the spring of 2002, discussing traditional place relationships with Dakota and Lakota tribal members as well as management goals and concerns with NPS personnel. This part of the study was co-directed by two of the senior BARA faculty who work in the Native American Cultural Resource Revitalization program.

Richard W. Stoffle

Dr. Richard W. Stoffle is a senior cultural anthropologist at BARA. Since 1976, he has worked with more than 90 American Indian tribes and many federal agencies to identify and present Indian environmental views and concerns in land management decisions. Dr. Stoffle has worked also with several fishing communities in the Caribbean and Great Lakes region addressing similar management issues of environmental and resource use. His more recent publications include American Indian histories with the Nevada Test Site and with Nellis Air Force Base, and articles on traditional environmental knowledge in *Human Organization*, *American Indian Quarterly*, and *Current Anthropology*.

Rebecca S. Toupal

Dr. Rebecca S. Toupal is an Assistant Research Scientist with the Bureau of Applied Research in Anthropology, University of Arizona. Since 1987, she has worked on natural resource management issues with landowners, agencies, partnerships, and tribal groups in the western U.S. Her academic background includes range management, landscape architecture, natural resource policy, and cultural anthropology. Since 1998, her research at BARA has focused on ecological change, human-nature relationships, and cultural landscapes.

Nathaniel O'Meara

Nate O'Meara has a B.A. in Anthropology from the University of Arizona. His interest in ethnobotany has led him to include many plant and ecological science courses in his curriculum. His research interests center around different cultural groups' relationships with and uses of plants. His ethnographic experience on this topic includes three investigations of Bahamian plant use, and landscape research on Western Apache resource use. He is currently involved in research on plant and mineral use at Bandelier National Monument, and plant use at Saguaro National Park.

Jill Dumbauld

Jill Dumbauld has a B.A. in Anthropology from the University of Arizona. Her research interests include people's relationships with land and resources, particularly plants and agriculture, and how understanding of these relationships can improve their quality of life. Her ethnographic experience includes three investigations of Bahamian marine landscapes and the impacts of a Marine Protected Area on local communities, and landscape research with Southern Paiute, Yavapai, Havasupai, Zuni, and Western Apache tribes in Arizona.

METHODOLOGY

The primary objective of the ethnobotany research was to collect data that would be entered into the ERI for access by monument managers. To achieve this objective, the UofA research team developed a data collection form specific to ERI plant data fields (Appendix 1), and worked with Dakota and Lakota tribal members at Pipestone National Monument to identify and discuss traditional plants. Throughout the remainder of this report, we refer to Dakota and Lakota tribal members collectively as Sioux.

Over the two week period during which these discussions took place, we held 75 structured discussions and 25 unstructured discussions concerning traditional plant use, transfer of traditional knowledge, and traditional plant management. These discussions were conducted with the assurance that these were confidential and the information shared would not be attributed to the participants by name without their request.

The team also reviewed published and unpublished sources of information on identification and traditional use of tallgrass prairie plants. The documents reviewed included books, journal articles, 19th century journals, research reports, unpublished theses and dissertations, and historical manuscript collections.

SUMMARY OF FINDINGS

Pipestone National Monument is a remnant of multiple significant natural and cultural resources. While its size precludes restoration of a true tallgrass prairie³, many more native prairie species can be reestablished, particularly through a specialized multi-year burning program. Since place-specific knowledge comes from human interactions with the resources of the place, the people traditionally associated with that place have developed ecological knowledge about the place. Traditional interactions with Pipestone, including burning and ceremonial cycles, resulted in intimate traditional ecological knowledge among the Native American tribes who frequented the area. Based on our discussions with the Sioux consultants, an ultimate goal for Pipestone would be to restore an environment in which traditional activities can occur under appropriate and requisite conditions. Specific findings from our discussions and literature review include:

From the discussions:

- Plant discussions became meaning-of-place discussions, which led to management recommendations for a traditional cultural landscape.
- Food plants were discussed in more detail than medicine plants. Few medicine plants were identified that were not also identified as food plants.
- The controversy over commercialization of pipestone needs to be addressed before the Sioux people will talk about plants in more detail.
- Any interaction or consultation about Pipestone and its resources would benefit from following ceremonial protocols; this includes ceremonies to enter the monument for meetings with the NPS.
- There are protocols for sharing traditional knowledge including about plants; these primarily involve ceremonies to obtain permission to share information with the person(s) seeking the knowledge.
- Sioux concerns about sharing traditional plant knowledge include intellectual property rights, potential harm of monument resources, and misuse by those who do not know how to properly use the plants.
- Geophysical ethnographic resources such as the Three Maidens, the quarries, Winnewissa Falls, Pipestone Creek, and the quartzite ridge are significant features of a traditional cultural landscape made cohesive through traditional plant use and management.

From the literature:

- The biophysical landscape underwent extreme alterations in the late 19th and early 20th centuries. Native tallgrass prairie species were displaced by introduced species; fire suppression led to increased tree and shrub growth in the monument; the petroglyphs surrounding the Three Maidens were removed; quartzite quarrying for building stone left large open pits in landscape, one of

³ According to one Dakota consultant, it takes 16,000 acres, a tributary, 500 buffalo, and traditional burning cycles to create a viable tallgrass prairie.

which immediately south of the Three Maidens filled with water creating a small lake; and Pipestone Creek, above the falls, was blasted to drain the upper wetlands and reduce flooding.

- The cultural landscape underwent extreme changes concurrent with the biophysical changes, however, these were not as obvious as the physical changes. The cultural landscape and the power of the place known as Pipestone were kept in balance through annual ceremonial processes that were initially disrupted by increases in settlers' migrating to and through the area. As encroachment continued, the ceremonial processes were relocated, diminished, and finally reduced to a level of activity limited to specific locations within the monument.

The cultural landscape depicted at Pipestone National Monument focuses on the pipestone material or catlinite. Given the sacred nature of the place, this interpretation provides a protective measure, however, it also suppresses significant cultural concerns of the Sioux tribes. We suggest this interpretation represents a misunderstanding of Pipestone and results from a lack of traditional interaction with the place and reduced use of traditional use plants. It is from intact traditional plant communities that one can learn about the place and the activities and ceremonies that should occur there. While restoration of a viable tallgrass prairie is unrealistic, restoration of a viable traditional cultural landscape is achievable. It requires a partnership between the Sioux people and the managers of Pipestone National Monument that can address issues of ethnobotany, human behavior, and restoration of the cultural landscape that presently is suppressed by introduced species and conventional recreational activities.

This volume of the Pipestone report has three major sections: ethnobotany, cultural landscapes, and management comments from tribal participants. The ethnobotany is synopsis of traditional use plants found in Pipestone National Monument that were discussed by tribal participants and/or found in the literature. The cultural landscape section deals with landscapes from three eras – traditional, transitional, and contemporary – and with the meanings of places. The management comments section includes observations and recommendations from tribal participants on a variety of issues and resources. The landscape and management sections are included in this ethnobotany report because these are pertinent to traditional plant use and contemporary relationships with the Sioux tribes.

SECTION ONE

ETHNOBOTANY OF PIPESTONE NATIONAL MONUMENT

Traditional uses of plants at Pipestone suggest that it was a place of medicines, healing, ceremonies, and rites-of-passage that probably included vision questing. Additional ceremonial and ritual activities came to be associated with pipestone quarrying, and some of these continue today. Given the legislative emphasis on pipestone quarrying, and the commercialization by some quarriers of pipestone products, the full cultural significance of Pipestone has been subsumed and/or misunderstood by many.

Traditional plant use knowledge encompasses issues of cultural sensitivity, knowledge sharing, and safety. Tribal participants expressed concerns about plant signs and the degree to which traditional knowledge might be made public particularly for ceremonial and medicinal plants that have varying degrees of sensitivity, limited knowledge distribution, and potential for danger to people unfamiliar with proper plant use. This section, consequently, begins with a discussion of knowledge sharing from the tribal perspective.

The body of this section focuses on snapshots of the ninety Pipestone plants discussed by tribal participants and park employees. These snapshots include scientific, common, and Indian names when available, images, general uses, descriptions of uses, and citations relative to species' presence in the park when available. Supplemental plant information is provided in several electronic (CD) appendices (#5-#11), however, summary tables about priority plants (Appendix 5) and uses (Appendices 6) are replicated at the end of this section for management access.

The ninety plants are part of 134 records we entered into the Ethnographic Resource Inventory (ERI) (Appendix 4). This NPS electronic database provides a systematic way to assemble large volumes of information based on species, affiliated groups, and other parameters, however, access to it is limited to the NPS. The additional 44 ethnobotanical records are based on historic documents and previous studies, but were not discussed by tribal participants during the 2002 fieldwork.

SHARING ETHNOBOTANICAL KNOWLEDGE

Sioux consultants explained that sharing information with non-Sioux people is a cause of concern given the common practice of non-Indians analyzing the chemical properties of traditional use plants for new pharmaceuticals and not paying royalties and/or crediting the people who provided them with the information. The majority of the information shared by the consultants, consequently, focused on everyday food or medicinal uses, and not necessarily those uses specific to the traditional Pipestone landscape.

The complex interrelationship between the Sioux people and plant communities traverses many cultural domains including how people come to know about plants, the places that they grow, the rules for collecting, the ways to use them, and the spiritual aspects of their relationship with plants. The first thing to understand about sharing plant knowledge is that it has to be earned and given in a ceremonial context. It usually involves learning from others who have more experience, and follows guidelines have been developed over the generations to ensure that the knowledge is transferred in a cultural appropriate manner.

You're just going along, and you ask for help; they'll show you which plant. The only other way you would know is that someone would tell you. This one's better for that, or this one's better for this. Some of e'm make real strong tea, and some of e'm will make the strongest tea, and some of e'm are different shapes. It depends on how strong a medicine you need. If you need something that'll work your stomach over, you'll go and pick the big flat one. And one for the Sun Dance.

The guy who talked to the spirits, he'll tell you or the spirits will tell you what is proper. A long time ago, they gave that name to people who talk Indian and white, the spirits too. They can interpret what the spirits say to them.

Usually, on the teaching part, is that usually the oldest daughter or the son, ...the woman would teach the oldest daughter, and then it passes on that way. The men would teach the oldest son, and keep the tradition going in the family with his oldest son. The women have medicine plants that they use. The majority of the time it's a family member. And the spiritual men, the plants he uses when his, is only passed on with his mantle. [The mother teaches the eldest daughter, the father teaches the eldest son, and that's for all plants for any purpose.] ...other family knows about it too, but that's the main student so to speak. [The brothers and sisters] go along too but they normally, usually teach it to the oldest, teach him the ways; and if that's not so, then they'll pick someone else. There's always someone chosen to do that. There's usually a story with it.

Well, there's a pretty small group, probably I could share very little knowledge with because I gain a lot of knowledge from them. But I might share it with them; the majority of this group are my teachers and elders. I'm reluctant to share unless one of them decides to share. But that's not, that's in a travel group though; this is pretty specific. I teach my children.

The appropriate ways to approach and use plants is embedded in the Dakota or Lakota language. It is through speech that rules are learned such as when ceremonial plants are gathered; tobacco has to be offered because it is recognized as medicine for the spirits. As a result, to many Sioux people plants are not separate from the spiritual realm; whereas many non-Indians see plants and animals, the Sioux see spirits.

There is a plant that always has another spirit. So if you have one plant, you have another. It's another plant that resembles it. They're both of this world but are representative of the other world. Duality. Duality is acknowledgement. It's the same thing, just reflections. They're the tie that connects the finite to the infinite. It's about the belief system. If you believe in the pipe, you believe that when you smoke it in ceremony, those two worlds come together. It's a timeless moment. The ceremonies go between worlds. Let's say if you give me tobacco or blow on the pipe. From that moment on, my thoughts are supposed to be between worlds. The songs carry you to another world.

Just like when you take a tree down; you go to that biggest tree and you ask it...it's just like taking a life. The tree's like my brother, so you go and you ask the biggest tree you can find, you ask him 'can I take one of these for whatever reason?' but you always gotta ask. So medicine's always picked out away from...[traffic areas].

The plants of the traditional Pipestone landscape were gathered and used by those with specialized plant knowledge, particularly about medicinal and ceremonial uses. Medicine plants cannot heal unless used properly and carefully; a plant can affect a person positively or negatively depending on whether it is used properly. The effectiveness of a treatment can vary between practitioners, just as a plant can be used for different purposes by different healers.

You could record (it's use) but probably not put it down because someone will just, 'well, I know it's a medicinal plant so I'll just chew on it.' [It can cause a] cardiac infarction, 'cause that's what it'll do is stop your heart. The other side of the coin is, if you know how to use it, it helps the heart.

Every plant out there has a purpose and is used. The people who use them won't be at this table because many, if not all, have a medicinal use.

There's plants that I could use in one way, and (someone else) could use them in a different way. They won't work for me that way he's using them, but they work the way that I'm using them.

Being a primarily male traditional site, Pipestone is believed to have had species specific for male uses. Among the different sages, for example, the broader-leafed white sage is still an important ceremonial plant used by men. The sage species in Pipestone that is used by the women is *Artemisia absinthium*, which is burned to keep flies away when scrapping hides. As we have found with other tribes⁴, we believe that the men who used the site traditionally would have encouraged the growth of specific species in Pipestone so that they

⁴ Stoffle, Halmo, and Austin 1997; Stoffle, Halmo, and Evans 1999; Stoffle, Austin, Halmo, and Phillips 1997; Stoffle, Halmo, Olmsted, and Evans 1990; Stoffle, Zedeño, Eyrich, and Barabe 2000; Stoffle, Evans, Halmo, Dufort, and Fulfroost 1994; Stoffle, Zedeño, Pittaluga, Earnest, Eisenberg, Amato, and Dewey 1998.

would have access to the most powerful plants; this is a case of the place contributing power to the plants.

Plants can indicate their properties and potential uses. The traditional colors of black, yellow, red, and white, for example, represent the four colors of humanity. The colors are considered sacred and cannot be discussed at length, however, it can be told that on an individual basis the colors are utilized for different purposes. They have been used together with tobacco for ceremonial purposes, but in medical terms red coloration on stems or leaves is a likely indicator of a medicine, and yellow is associated with life.

Yellow is like life. They're [dandelions] used [for increasing] life. Yellow is like where life comes from.

The Sioux people believe that plants can inform them about the cultural significance of a place. Through their composition, plant communities can convey what kind of ceremonies should occur, or may reveal the meaning of petroglyphs found nearby. Plants, as are rocks, are perceived as beings who are consciously aware of humans and capable of evaluating their activities.

Plants know, and I believe that rocks know. Plants get senses of our attitudes. You affect it by looking at it, by picking it. The rocks are sentient. This is the foundation of our belief system. It's not in books yet.

SPECIES-SPECIFIC ETHNOBOTANY

The plant species discussed in this section, presented in alphabetical order of scientific name, are traditional use plants about which the Sioux consultants wanted to share information with the NPS. It is presumed that the more participants discussed a plant, the more acceptable it is to discuss publicly. Those plants that were discussed on a limited basis or simply identified are presumed to have greater cultural sensitivity and/or more stringent rules of knowledge sharing. One such example is wild bergamot (*Monarda fistulosa* ssp *fistulosa* var *mollis*), which is known to be culturally important, used, but mentioned only in passing.

The descriptions include scientific, common, and Indian names when available, images, general uses, descriptions of uses, and citations relative to species' presence in the park when available. These details reflect the ones that park employees indicated were of most use to them in such a reference.

Scientific Name

Acer negundo



Source: @ USDA-NRCS PLANTS Database. Last accessed summer 2002

Common Name

Boxelder maple

Indian Name

tashkadaⁿ (Dakota); *tashkadaⁿ, chaⁿ-shushka* (Teton) (Gilmore 1991:49)
caṅśúśka (slow or worthless tree) (Rogers 1980:43)

General Uses

Food (Moerman 1998; Gilmore 1991; Johnson and Larson 1999; Zedeño, Basaldú, Hamm and Eisenberg 2001)
Ceremony (Moerman 1998; Gilmore 1991; Johnson and Larson 1999)
Decoration (Moerman 1998; Gilmore 1991; Johnson and Larson 1999; Zedeño, Basaldú, Hamm and Eisenberg 2001)
Unspecified (BARA 2002)

Description of Uses

"This tree was used also for sugar making by all the tribes. The Dakota and Omaha and probably the other tribes used boxelder wood to make charcoal for ceremonial painting of the person and for tattooing (Gilmore 1991:49)."

"Common near streams throughout South Dakota. The Lakota name, *caṅśúśka*, means "slow tree" or "worthless tree (Rogers 1980:43)."

"Boxelder was used by many tribes for making sugar in the same manner as sugar maple trees. Dakota used charcoal from boxelder for ceremonial painting and tattooing (Johnson and Larson 1999:238)."

"Sap was boiled to make sugar. Wood made into charcoal and used for ceremonial painting and tattooing (Moerman, 1998)."

"Food, sugar, inner bark assists in childbirth (Zedeño, Basaldú, Hamm and Eisenberg 2001)."

In Park

Truax and Linch 1954

Scientific Name

Achillea millefolium



Source: **George F. Russell** @ USDA-NRCS PLANTS Database.
Last accessed summer 2002

Common Name

Common yarrow

Indian Name

None given

General Uses

Medicinal (Rogers 1980; Johnson and Larson 1999)
Unspecified (BARA 2002)

Description of Uses

"A common weed in open areas across South Dakota. A tonic tea can be made by steeping the leaves about ten minutes. It has sometimes been used to treat menstrual and urinary disorders (Rogers 1980:49)."

"Common yarrow and related species have been used historically by American Indians to stop bleeding of wounds, to treat sores, to alleviate colds, and as a mild laxative (Johnson and Larson 1999:97)."

In Park

Nicollet 1838
Truax and Linch 1954

Scientific Name

Allium canadense



Source: Thomas G. Barnes @ USDA-NRCS PLANTS Database Barnes, T.G. & S.W. Francis. 2004. *Wildflowers and ferns of Kentucky*. Univ. Press of KY. Last accessed summer 2002

Common Name

Onion

Indian Name

*pshí*ⁿ (Gilmore 1991:19)

pśín (Rogers 1980:25)

General Uses

Food (Moerman 1998; Gilmore 1991; Moyle and Moyle 2001, BARA 2002)

"All the species of wild onion found within their habitat were used for food by the Nebraska tribes, commonly raw and fresh as a relish, sometimes cooked as a flavor for meat and soup, also fried (Gilmore 1991:19)."

"This and other native onions were used by Native Americans for flavoring (Moyle and Moyle, 181:2001)."

**Tribal Rep
Comments**

They used the bulb, sometimes in stews or soups; the onion is stronger if used after it's gone to seed.

In Park

Nicollet 1838

Truax and Linch 1954

Scientific Name

Allium stellatum



Source: Don Kurz @ USDA-NRCS PLANTS Database.
Last accessed summer 2002

Common Name

Onion

Indian Name

pshí' (Gilmore 1991:19)
pśiq (Rogers 1980:25)

General Uses

Food (Gilmore 1991; Moyle and Moyle 2001; BARA 2002)

Description of Uses

"All the species of wild onion found within their habitat were used for food by the Nebraska tribes, commonly raw and fresh as a relish, sometimes cooked as a flavor for meat and soup, also fried (Gilmore 1991:19)."

"This and other native onions were used by Native Americans for flavoring (Moyle and Moyle, 181:2001)."

**Tribal Rep
Comments**

*They used the bulb, sometimes in stews or soups; the
onion is stronger if used after it's gone to seed.*

In Park

Nicollet 1838
Truax and Linch 1954

Scientific Name

Allium textile



Source: @ USDA-NRCS PLANTS Database.
Last accessed summer 2002

Common Name

Onion

Indian Name

pshí' (Gilmore 1991:19)
pśín (Rogers 1980:25)

General Uses

Food (Gilmore 1991; Moyle and Moyle 2001; BARA 2002; Moerman 1989)

Description of Uses

"All the species of wild onion found within their habitat were used for food by the Nebraska tribes, commonly raw and fresh as a relish, sometimes cooked as a flavor for meat and soup, also fried (Gilmore 1991:19)."

"This and other native onions were used by Native Americans for flavoring (Moyle and Moyle, 181:2001)."

"Bulbs cooked in stews; or eaten fresh or stored for future use (Moerman 1998)."

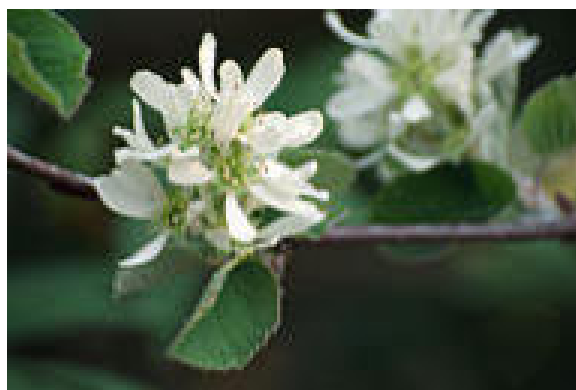
**Tribal Rep
Comments**

*They used the bulb, sometimes in stews or soups; the
onion is stronger if used after it's gone to seed.*

In Park

Nicollet 1838
Truax and Linch 1954

Scientific Name *Amelanchier humilis*



Source: © 2004 Nick Kurzenko. Last accessed summer 2002

Common Name	Low serviceberry
Indian Name	<i>wi'pazutkan</i> (a thing to crack bones), <i>wi'pazuka wastē wi</i> (good Juneberry moon) (Rogers 1980:90)
General Uses	Food (Zedeño, Basaldú, Hamm and Eisenberg 2001; Gilmore 1991; Rogers 1980; Larson and Johnson 1999) Medicinal (Zedeño, Basaldú, Hamm and Eisenberg 2001) Manufacture (Gilmore 1991; Rogers 1980; BARA 2002)
Description of Uses	"The Dakota call it <i>wipazuka</i>. The berries were prized for food and the wood for arrow shafts (Gilmore 1991:35)." "The Lakota name, <i>wipazutkan</i>, refers to a thing used to crack bones. <i>Wipazuka waste wi</i> means "good Juneberry moon," which is the month of June when the berries ripen. The stem is used for arrows, and for making <i>tahuka cangleska</i>, a hoop with leather over it that is used in a game (Rogers 1980:90)." "The berries were pounded into venison or bison meat, which was then dried to make pemmican. Fresh fruit is used for jams, jellies, and pies (Larson and Johnson 1999:532)."
Tribal Rep Comments	<i>Plant used to make popgun pistols.</i>
In Park	Truax and Linch 1954

Scientific Name

Amorpha canescens



Source: Richard W. Stoffle 2002

Common Name

Leadplant

Indian Name

Zitka' tacan' (Rogers 1980:70)

General Uses

Food	(Moerman 1998; Rogers 1980; Johnson and Larson 1999; BARA 2002)
Ceremony	(Moerman 1998; Rogers 1980; Johnson and Larson 1999; BARA 2002)
Medicinal	(BARA 2002)
Resource Acquisition	(Bray and Bray 1976)

Description of Uses

"The leaves were used to make a hot tea or crushed fine, were mixed with buffalo fat and used as a smoking material (Moerman 1998)."

"A common low shrub in grasslands across South Dakota. The leaves can be used for tea, and for smoking. *Zitka' tacan'* means "the bird's wood" or "the bird's tree" (Rogers 1980:70)."

"American Indians used the dried leaves for smoking and for tea (Johnson and Larson 1999:256)."

"*Amorpha nana* (*Amorpha canescens*- lead plant) – the second plant the Indians consider necessary to attract the buffalo (Bray and Bray 1976:117)."

**Tribal Rep
Comments**

The plant was used with tobacco, as well as made into a bitter green tea sometimes called "snakeberry tea" and a strong medicine used only by certain people.

In Park

Nicollet 1838
Truax and Linch 1954

Scientific Name

Amorpha fruticosa



Source: **Robert H. Mohlenbrock** @ USDA-NRCS PLANTS Database / **USDA SCS. 1989. Midwest wetland flora: Field office illustrated guide to plant species.** Midwest National Technical Center, Lincoln, NE.
Last accessed summer 2002

Common Name

False indigo

Indian Name

śuṅktāwote (horse's food), *zintkāla tacan'* (bird's tree), *zitka' tacan' mini' aglāgla uṇ'pi* (birds use the tree along side of water) (Rogers 1980:70)

General Uses

Manufacture (Rogers 1980; Larson and Johnson 1999; BARA 2002)
Resource acquisition (Rogers 1980; Larson and Johnson 1999; BARA 2002)

Description of Uses

"Common along streams and ponds throughout South Dakota... *Śuṅktāwote* means "horse's food." *Zitka' tacan'* means "bird's tree." So called because birds alight on it in the prairie where there are no trees. *Zitka' tacan' mini' aglāgla uṇ'pi*, means "birds use the tree along side of water." Arrows were made from the stems (Rogers 1980:70)."

"Northern Plains Indians used its straight branches for arrow shafts (Larson and Johnson 1999:514)."

**Tribal Rep
Comments**

Stems used to make arrows.

In Park

Nicollet 1838
Truax and Linch 1954

Scientific Name*Andropogon gerardii*

Source: Copyright 1997-2002 Mike Haddock

Common Name

Big bluestem

Indian Name*Peji' saša ōkīhe tanjīnīnyan* (Rogers 1980:32)**General Uses**

Weaponry (Rogers 1980; Johnson and Larson 1999)
Manufacture (Rogers 1980; Johnson and Larson 1999 Johnson and Larson 1999; BARA 2002)
Medicinal (Johnson and Larson 1999)
Play (Rogers 1980; Johnson and Larson 1999)

"Common in moist prairies across South Dakota. This is the classical grass of the tallgrass prairie (eastern South Dakota).. *Peji' saša ōkīhe tanjīnīnyan* means "very large red joint grass." *sanjūhū ōkīheton* means "jointed *sanjūhū*." Little boys of several tribes used stems of this grass for their arrows used in play. A thorn of *Crataegus* (hawthorn) could be inserted in the end as an arrow-point and they would shoot frogs for practice (Rogers 1980:32)."

"From its straight stalks, boys of many tribes fashioned arrow shafts which were used in play and practice for manhood skills. A decoction of lower leaves was drunk for correcting general debility and languor and was used in bathing to reduce fevers (Johnson and Larson 1999:18)."

**Tribal Rep
Comments**

This plant was the preferred species for insulating tents. The Indian people would place it between the pole and the hide to keep out the wind and cold. By the time they were ready to use the grasses, the seeds had already fallen. Historically, the big bluestem would get as high as a horse's neck. All you could see was the rider and sometimes the top of the horse's head.

They used to have a good burn cycle that produced mostly grass and kept the plum back.

In Park

Scientific Name

Arctium minus



Source: **W.L. Wagner** @ USDA-NRCS PLANTS Database.
Last accessed summer 2002

Common Name

Common burdock

Indian Name

None given

General Uses

Unspecified (BARA 2002)
Food (Rogers 1980)

Description of Uses

"A common weed in alluvial woods, especially in eastern South Dakota. It is a biennial, and first- year plants resemble and are called "wild rhubarb", a plant to which it is not related. First year root from basal rosette in fall or early spring can be eaten (Rogers 1980:49)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

1

Scientific Name

Artemisia absinthium



Source: Richard W. Stoffle 2002

Common Name

Common wormwood, sage, mugwort, absinthium

Indian Name

P̄eji' ho'ta (Lakota generic)(gray herb) (Rogers 1980:51)

General Uses

Food (BARA 2002)
Medicinal (BARA 2002; Zedeño, Basaldú, Hamm and Eisenberg 2001)
Other (BARA 2002)

Description of Uses

**Tribal Rep
Comments**

Women would burn this when cleaning hides to keep the flies away. Sometimes used in cooking. It also has medicinal uses.

In Park

Nicollet 1838

Scientific Name

Artemisia biennis



Source: Emmet J. Judziewicz @ Wisconsin State Herbarium.
Last accessed summer 2002

Common Name

Biennial wormwood, sage, mugwort

Indian Name

P̄eji' ho'ta (Lakota generic)(gray herb) (Rogers 1980:51)

General Uses

Unspecified (BARA 2002)

Description of Uses

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Scientific Name

Artemisia campestris ssp. caudate



Source: **Kenneth J. Sytsma** @ Wisconsin State Herbarium.
Last accessed spring 2004

Common Name

Wormwood, sage, mugwort

Indian Name

caṅhīlōgaṇ waštēmna (sweet-smelling weed) (Rogers 1980:49)

General Uses

Medicinal (Rogers 1980; Zedeño, Basaldú, Hamm and Eisenberg 2001; Johnson and Larson 1999)
Other (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"*Canhlogan wastemna*, means "sweet-smelling weed." A tea from the roots is used for one who cannot urinate or whose bowels do not move, or for a woman who is having difficulty giving birth. Pulverized roots used for perfume. Pulverized roots put on the face of a sleeping man so he will not wake up and his horses can be stolen (Rogers 1980:49)."

"Dakota and Lakota used western sagewort for medicine to remedy constipation, inability to urinate, and difficulty in childbirth (Johnson and Larson 1999:100)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Nicollet 1838

Scientific Name*Artemisia frigida*

Source: Richard W. Stoffle 2002

Common Name

Prairie-sage

Indian Name

wia-ta-pezhihuta (woman's medicine) (Gilmore 1991:82)
Peji' hōta waštēmna (sweet-smelling gray herb) (Rogers, 1908:49)

General Uses

Medicinal	(Gilmore 1991; Johnson and Larson 1999)
Ceremony	(Johnson and Larson 1999; DeMallie in Bray and Bray 1976)
Manufacture	(Johnson and Larson 1999)
Bathing/Cleaning	(Gilmore 1991; Johnson and Larson 1999)
Unspecified	(BARA 2002)

Description of Uses

"A decoction of this species was used for bathing and was also taken internally by women when menstruation was irregular; hence the Dakota name (Gilmore 1991:82)."

"*Indian Name* means "sweet-smelling gray herb." Gilmore says this species is called "woman's medicine" in Lakota, and is taken internally for irregular menstruation (Rogers, 1980:49)

"Lakota called fringed sagewort "woman's sage or medicine." It was used to correct menstrual irregularity and as a decoction for bathing. Leaves were chewed to relieve heartburn and dress wounds. The soft, fragrant foliage was used for menstrual pads and toilet paper. Some tribes used its smoke in religious ceremonies (Johnson and Larson 1999:100)."

"*Artemisia frigida*, the odoriferous plant they (Dakota) burn in their ceremonies (DeMallie in Bray and Bray 1976)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Nicollet 1838

Scientific Name

Artemisia ludoviciana
A. ludoviciana ssp. *ludoviciana*



Source: Richard W. Stoffle 2002

Common Name

White sage

Indian Name

Pezhiihota blaska (Gilmore 1991:82)
Peji' ho'ta (Lakota generic)(gray herb) (Rogers 1980:51)

General Uses

Ceremony	(Moerman 1998; Rogers 1980; BARA 2002)
Medicinal	(Moerman 1998; Johnson and Larson 1999; BARA 2002)
Manufacture	(Johnson and Larson 1999)
Other	(Rogers 1980; Johnson and Larson 1999; BARA 2002)

Description of Uses

Used ceremonially and medicinally, white sage is one of the most important plants in Dakota and Lakota culture. Indigenous management included fall burning to encourage growth. Cutting for use also encourages growth. Although the plants are easily top-killed by all fire intensities, these appear moderately resistant to fire mortality having rhizomes and suffrutescent stem bases from which to regrow (Anderson and Bailey 1980; Bailey and Anderson 1978). With proper timing, burning can enhance densities and plants can be regained rapidly. White sage appears to be well adapted to repeated, annual spring burning (Anderson and Bailey 1980). Plant establishment also occurs from wind-dispersed seeds (Johnson and Strang 1983; Wright 1985), and off-site seed sources (Anderson and Bailey 1980), the latter of which may have occurred in the traditional landscape as medicine men sought stronger remedies. Applies to *Artemisia ludoviciana* and *A. ludoviciana* ssp. *ludoviciana* (Gilmore 1977; Rogers 1980).

"Dakota Ceremonial Medicine. Plant used in purificatory rites by women after menstruation (Moerman 1998)."

"Indian name means "grey herb" (This is the Lakota "generic name" for sage; several species have this name followed by other descriptive words.) The Indian name (spiritual power) of white sage is able to drive away evil influences. This species is used as a wreath and bracelets in the sun dance, is used in the sweat lodge, is burned as incense, etc. (Rogers 1980:541)."

"Besides its medicinal use to treat headaches, coughs, hemorrhoids, and

stomach disorders, it can deodorize feet, be made into pillows and saddle pads, and be burned to drive away mosquitoes (Johnson and Larson 1999:102)."

**Tribal Rep
Comments**

The men use the broader leaf white sage in Pipestone for ceremonial smudging, and for purification to take out all negativity, all bad things that are around you, so you can have a pure heart to go into your ceremonies, into the quarries. It's used for prayer ceremonies but if it's used incorrectly, it is dangerous. It is not used for an offering. It's a healing plant too for wounds but you have to know how to put plants on the wounds to do it correctly.

*The women don't use this sage. There's a sage out west toward the Black Hills area, up toward Cheyenne River and Standing Rock; a thin, fine-leafed sage that they call women's sage, and the women use that; it's not the same as the thinleaf here; it's a little bit different; [possibly silver sage (*Artemisia cana*) or fringed sage (*Artemisia frigida*)].*

[Indigenous management] was to burn in the fall to encourage growth. Cutting for use also helps the plant come back bigger.

In Park

Nicollet 1838
Truax and Linch 1954

Scientific Name	<i>Asclepias syriaca</i>  Source: Richard W. Stoffle 2002
Common Name	Common milkweed
Indian Name	None given
General Uses	Food (Rogers 1980; Larson and Johnson 1999; Moyle and Moyle 2001) Manufacture (Rogers 1980) Medicinal (Zedeño, Basaldú, Hamm and Eisenberg 2001) "This is an introduced weed common throughout South Dakota and is the species most often eaten. Young shoots, top leaves, flower buds, and young pods may be eaten boiled (perhaps takes two waters because of bitterness). Fibers for cordage may be gotten from the stems. The silky hairs of the seeds of <i>A. incarnata</i> and <i>A. syriaca</i> especially may be used for kapok (they are light and buoyant in water) (Rogers 1980:48)." "Young shoots, flower buds, and fruits of these milkweeds are edible if boiled with one or two changes of water, and various plains tribes used them in cooking (Larson and Johnson 1999:64)." "Root boiled for medicine (Zedeño, Basaldú, Hamm and Eisenberg 2001)." "Stems with open pods, from which the seeds have been released, are gathered for winter bouquets. Young stems, pods, and flower buds have sometimes been cooked and eaten like asparagus (Moyle and Moyle, 156:2001)."
Tribal Rep Comments	Used for unspecified purposes although, <i>The red main leaf vein indicates a medicine.</i>
In Park	Truax and Linch 1954

Scientific Name

Asparagus officinalis



Source: Richard W. Stoffle 2002

Common Name

Asparagus

Indian Name

None given

General Uses

Food (Rogers 1980; BARA 2002)

Description of Uses

"Ordinary asparagus often escapes cultivation and persists in prairies and roadsides throughout South Dakota. The succulent shoots are eaten (Rogers 1980:25)."

**Tribal Rep
Comments**

Asparagus is harvested for food when it's about one foot high. The act of harvesting encourages new growth. The feathery leaves are eaten as well as the larger stems.

Asparagus is encouraged by fire.

In Park

Truax and Linch 1954

Scientific Name

Astragalus agrestis



Source: Richard W. Stoffle 2002

Common Name

Field milk-vetch

Indian Name

None given

General Uses

Unspecified (BARA 2002)

Description of Uses**Tribal Rep
Comments**

Used for unspecified purposes..

This is a useful and important plant.

There is a reason for plants to have little leaves in clusters. I can't say too much about it though.

In Park

Nicollet 1838

Scientific Name

Bromus inermis



Source: **Larry Allain** @ USDA-NRCS PLANTS Database.
Last accessed summer 2002

Common Name

Smooth brome

Indian Name

None given

General Uses**Description of Uses****Tribal Rep
Comments**

They used to burn at PIPE about every two years; let it grow for two years and burn the following spring when the brome was 4"-6" high. This cycle kept smooth brome and plum under control.

In Park

Truax and Lyle 1954

Scientific Name

Carex spp.



Source: **Jennifer Anderson** @ USDA-NRCS PLANTS Database.
Last accessed summer 2002

Common Name

Sedge

Indian Name

None given

General Uses

Unspecified (BARA 2002)

Description of Uses

"About 75 species occur in South Dakota, usually in moist situations (forests, marshes), but a few species are in dry prairies. Sedges somewhat resemble grasses, but usually have a solid, triangular stem base, while grasses are usually hollow and circular. White lower stems of *Carex* and other members of the sedge family may be nibbled (Rogers 1980:23)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Nicollet 1838

Scientific Name*Cicuta maculata*

Source: **Robert H. Mohlenbrock** @ USDA-NRCS PLANTS Database / **USDA SCS. 1989. Midwest wetland flora: Field office illustrated guide to plant species. Midwest National Technical Center, Lincoln, NE. Last accessed summer 2002**

Common Name

Common water-hemlock

Indian Name*yajōpi hu cì'k'ala* (small flute stem) (Rogers 1980:45)**General Uses**

Unspecified (BARA 2002)

Description of Uses

"Common in moist places throughout South Dakota, this is perhaps the most poisonous plant in North America. All parts poison to people and livestock, especially rootstock and lower stem. Learn this plant to avoid gathering its thickened roots. The Lakota name, *yajopi hu cik ala*, means "small flute stem (Rogers 1980:45)."

"Also called Musquash Root and Spotted Cowbane. Our most poisonous plant. It contains a poisonous resin, cicutatoin, concentrated in the elongate tubers at the base of the stem. Ingestion of a small piece of tubers is sufficient to cause convulsions and death in humans. Water Hemlock grows in marches, roadside ditches, and along streams. Cattle can eat the leaves and stems, fresh or as hay, apparently without harm, but they have been killed by pulling up the plants and eating the roots" (Moyle and Moyle 2001:44).

**Tribal Rep
Comments***Important use plant but dangerous because it is poisonous to people.***In Park**

Nicollet 1838
Truax and Lyle 1954

1
2

Scientific Name

Cirsium spp.



Source: **Thomas G. Barnes** @ USDA-NRCS PLANTS Database / **Barnes, T.G. & S.W. Francis. 2004. *Wildflowers and ferns of Kentucky*. Univ. Press of KY.**
Last accessed spring 2004

Common Name

Tall thistle

Indian Name

None given

General Uses

Food	(Larson and Johnson 1999; Rogers 1980)
Medicine	(Zedeño, Basaldú, Hamm and Eisenberg 2001; Larson and Johnson 1999)
Unspecified	(BARA 2002)

Description of Uses

"Nine species, as weeds or herbs in prairies and forests across South Dakota. Stem (with "spines" peeled) eaten like celery; root from basal rosette like carrot, raw or cooked; white "meat" under faded flower (Rogers 1980:51)."

"The stems and roots of native thistles can be peeled and eaten raw or cooked, as they were by American Indians. Some species were also used medicinally for treating respiratory congestion, skin disorders, intestinal worms, and venereal disease, and to stimulate milk production. Thistle down (pappus) was commonly used as tinder to start fires (Larson and Johnson 1999:96)."

"Wavyleaf thistle (*Cirsium undulatum*) is the native thistle that was most often used by American Indians for food and medicine as described above in the introduction to thistles (Larson and Johnson 1999:98)."

Tribal Rep Comments

Used for unspecified purposes.

In Park

Truax and Lyle 1954

Scientific Name

Cirsium flodmanii



Source: **Emmet J. Judziewicz** @ Wisconsin State Herbarium.
Last accessed spring 2004

Common Name

Prairie thistle

Indian Name

None given

General Uses

Medicine (Zedeño, Basaldú, Hamm and Eisenberg 2001)
Unspecified (BARA 2002)

Description of Uses**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Truax and Lyle 1954

Scientific Name

Cornus sericea ssp. *sericea*



Source: Richard W. Stoffle 2002

Common Name

Redosier dogwood

Indian Name

Chaⁿ-shasha-hiⁿchake (Rogers 1980:68)

General Uses

Food (Larson and Johnson 1999)
Ceremony (Rogers 1980; BARA 2002; Larson and Johnson 1999)
Manufacture (Larson and Johnson 1999)

The third inner layer of bark of the red alder or the red dogwood (*Cornus stolonifera*) is used in the tobacco mix (Brown [1953] 1989). It and the mix may be called 'kinnikinnik.' The Dakota smoke it in the sacred pipe (Moerman 1998) during rituals and ceremonies such as the Releasing of the Soul, part of the Rite of the Keeping of the Soul; the Rite of Crying for a Vision; and the Rite of the Throwing of the Ball.

Description of Uses

"Common along streams and moist places throughout the Northern Plains. Lakota names: *Indian name* means "red wood" or "red tree"; *Indian name* means "very red wood." The inner bark is mixed with tobacco for smoking (Rogers 1980:68)."

"American Indians mixed the inner bark with tobacco for ceremonial and religious pipe smoking. Some tribes favored redosier dogwood for arrow shafts. To improve palatability, the sour fruits were occasionally mixed with much tastier serviceberries (Larson and Johnson 1999:504)."

**Tribal Rep
Comments**

Kinnikinnik, or chanshasha, is part of the tobacco of the Sioux. This is rarely smoked alone because of its bitterness. The mix is prepared in a ritual manner.

The third inner layer of Red osier dogwood bark is used in ceremonial tobacco mix.

In Park

Scientific Name

Coronilla varia



Source: **Jim Stasz** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Crown-vetch

Indian Name

None given

General Uses

Medicinal (BARA 2002)

Description of Uses**Tribal Rep
Comments**

This plant has medicinal applications

In Park

Scientific Name

Crataegus succulenta



Source: http://herbarium.biology.colostate.edu/crataegus_succulenta2.htm

Last accessed spring 2004

Common Name

Fleshy hawthorn

Indian Name

None given

General Uses

Medicinal (Foster, S. and J.A. Duke. 1990. *A Field Guide to Medicinal Plants. Eastern and Central N. America.* Houghton Mifflin Co.)
Unspecified (BARA 2002)

Description of Uses

Although no specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use. The fruits and flowers have a hypotensive effect as well as acting as a direct and mild heart tonic. They are especially indicated in the treatment of weak heart combined with high blood pressure. Prolonged use is necessary for it to be efficacious. It is normally used either as a tea or a tincture.

**Tribal Rep
Comments**

Used for unspecified purposes..

In Park

Nicollet 1838

Scientific Name *Cuscuta pentagona*



Source: © 1999 Doreen L. Smith.
Last accessed spring 2004

Common Name Field dodder

Indian Name None given

General Uses Unspecified (BARA 2002)

Description of Uses

**Tribal Rep
Comments** Used for unspecified purposes.

In Park Truax and Lyle 1954

Scientific Name*Cystopteris fragilis*

Source: **Thomas G. Barnes** @ USDA-NRCS PLANTS Database / **Barnes, T.G. & S.W. Francis. 2004. *Wildflowers and ferns of Kentucky*. Univ. Press of KY.**
Last accessed spring 2004

Common Name

Lowland bladder-fern

Indian Name

None given

General Uses

Unspecified (BARA 2002)

Description of Uses**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Scientific Name

Delphinium carolinianum ssp. *virescens*



Source: Richard W. Stoffle 2002

Common Name

Prairie larkspur

Indian Name

None given

General Uses

Medicinal (BARA 2002)

Description of Uses

"Common in prairies across South Dakota. All parts of the plant are poisonous to livestock. It is one of the major poison plants for cattle (less so for horses and sheep). The Lakota name, *wanagi tinpsila*, means "ghost turnip" (Rogers 1980:87)."

**Tribal Rep
Comments**

This is an important medicine plant that if used correctly can heal heart conditions. However, if used inappropriately it can cause heart conditions.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name*Echinocystis lobata*

Source: Richard Bauer and the University of Wisconsin-Stevens Point.
<http://wisplants.uwsp.edu/>
Last accessed spring 2004

Common Name

Wild cucumber

Indian Name

None given

General Uses

Manufacture (BARA 2002)
Medicinal (Larson and Johnson 1999)

Description of Uses

"The plant was used medicinally in combination with other plant materials by tribes east of the Plains (Larson and Johnson 1999:194)."

**Tribal Rep
Comments**

The seeds were used for beads.

In Park

Truax and Lyle 1954

1
2

Scientific Name

Equisetum arvense



Source: **Robert H. Mohlenbrock** @ USDA-NRCS PLANTS Database / **USDA SCS. 1989. Midwest wetland flora: Field office illustrated guide to plant species.** Midwest National Technical Center, Lincoln, NE. Last accessed spring 2004

Common Name

Common or field horsetails

Indian Name

None given

General Uses

Manufacture (BARA 2002)

Description of Uses

**Tribal Rep
Comments**

Has entertainment value as whistles for children.

In Park

Scientific Name

Erigeron strigosus



Source: **Robert H. Mohlenbrock** @ USDA-NRCS PLANTS Database / **USDA SCS. 1989. *Midwest wetland flora: Field office illustrated guide to plant species.* Midwest National Technical Center, Lincoln, NE. Last accessed spring 2004**

Common Name

Rough fleabane or Daisy fleabane

Indian Name

None given

General Uses

Medicinal (Johnson and Larson 1999)
Unspecified (BARA 2002)

Description of Uses

"Plains Indians used several species from this genus to treat ailments (Johnson and Larson 1999:116)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Scientific Name

Fragaria virginiana



Source: **Thomas G. Barnes** @ USDA-NRCS PLANTS Database **Barnes, T.G. & S.W. Francis. 2004. *Wildflowers and ferns of Kentucky*. Univ. Press of KY. Last accessed spring 2004**

Common Name

Thick-leaved wild strawberry

Indian Name

Wazhushtecha, *Wazhushtecha-hu* (strawberry vine), *Wazhushtecha shawi* (moon when strawberries are ripe) (Gilmore 1991:32)

General Uses

Food (BARA 2002; Gilmore 1991; Larson and Johnson 1999)
Medicine (BARA 2002; Larson and Johnson 1999)

Description of Uses

"All the tribes were fond of wild strawberries and luxuriated in them in their season, but the fruit was too juicy to lend itself to the process of drying successfully for winter use (Gilmore 1991:32)."

"As expected, American Indians ate strawberries as the crop became available. Fruits were also dried for later use in cooking. Young leaves were used for tea (Larson and Johnson 1999:326)."

**Tribal Rep
Comments**

Strawberries are eaten, made into a tea and used for medicine.

In Park

Truax and Lyle 1954

Scientific Name*Fraxinus pennsylvanica*

Source: Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database, 1989. (left);
Copyright 2003 Virginia Tech Forestry Dept. (center, right). Last accessed spring 2004

Common Name

Ash

Indian Name

Psehtĩ (Gilmore 1991:56)
Psēhtĩŋ caŋ (Rogers 1980:82)

General Uses

Food (Rogers 1980; Johnson & Larson 1999)
Ceremony (Gilmore 1991; BARA 2002)
Weaponry (Gilmore 1991; Rogers 1980; Johnson and Larson 1999)
Manufacture (Gilmore 1991; Rogers 1980; Johnson and Larson 1999;
BARA 2002)
Resource Acquisition (Gilmore 1991; Rogers 1980; Johnson and Larson 1999)

Description of Uses

"Ash wood was universally used for making pipestems; it was used also for making bows, and young stems furnished arrow shafts. The ash is one of the trees to which mystic powers are ascribed (Gilmore 1991:56)."

"Common in forests and along streams throughout South Dakota. Sap used to make syrup; young fruits boiled in three waters, then boiled with white vinegar, sugar and little water a short time, then let sit to produce "pickles." Lakota name, *Indian name*, means "ash tree." *Psēhtĩŋ caŋ* means ash, but also means pipe; pipe stems are made from ash wood (by most tribes). Ash wood was used for bows, and young stems for arrows (Rogers 1980:82)."

"Ash wood was use for making pipestems, bows, arrows shafts, and tipi pins. Trees were trapped to collect sap for making syrup; young fruits were made into "pickles" (Johnson and Larson 1999:260)."

**Tribal Rep
Comments**

Used historically for pipestems, ash still is an important plant. Live wood is seldom used today. Instead wood collected from trees that have blow down are used in the following manner:

The ash used for pipestems was usually a small, straight tree and under three inches in diameter. After you cut them, you take a hot hanger and run it right up through the middle of them where it's green in the middle, it's still soft..usually about twice if you get it right away after you cut it. The middle hardens as the wood dries making it practically impossible to make the hole. Sumac doesn't have this problem.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name

Geum triflorum



Source: Richard W. Stoffle 2002

Common Name

Prairie smoke

Indian Name

None given

General Uses

Medicinal (BARA 2002; Moyle and Moyle 2001)

Description of Uses

"A tea was made from its roots by Native Americans (Moyle and Moyle 2001:124)."

**Tribal Rep
Comments**

Roots were used to make a tea.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name*Heliopsis helianthoides*

Source: **Larry Allain** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Sunflower-everlasting

Indian Name

None given

General Uses

Unspecified (BARA 2002)

Description of Uses**Tribal Rep
Comments**

Used for unspecified purposes..

In Park

Scientific Name

Heracleum sphondylium



Source: **Kitty Kohout** @ Wisconsin State Herbarium.
Last accessed spring 2004

Common Name

Wild carrot/cow parsnip

Indian Name

None given

General Uses

Food (BARA 2002; Rogers 1980)
Medicinal (BARA 2002; Rogers 1980)

Description of Uses

"Common in marshy or damp areas across South Dakota. Young leaf stalks and stem, raw like celery or cooked (two waters); cooked root said to taste like rutabaga and to be good for digestion, relieving gas and cramps (Rogers 1980:45)."

**Tribal Rep
Comments**

This plant is used for food and medicine.

In Park

Scientific Name*Heuchera richardsonii*

Source: Richard W. Stoffle 2002

Common Name

Prairie alum-root

Indian Name

caŋhilo' hisnasna'la (herb bare of leaves), *wahipe' t'aga* (astringent, dries out mouth leaf), *pejūt janjan' s'elē* (alum) (Rogers, 1908:94)

General Uses

Medicinal (Rogers 1980; Larson and Johnson 1999; Moyle and Moyle 2001; BARA 2002)

Description of Uses

"Common at the edge of woods and in prairie swales. Roots eaten raw or made into tea for diarrhea. The tuberous roots were used to make a medicinal tea for diarrhea. Powder from roots was used on sores (Rogers 1980:94)."

"Lakotas made a tea from the root of Richardson's alumroot as a treatment for diarrhea. Powdered root was applied to wounds and sores (Larson and Johnson 1999:340)."

"The thick, astringent root was used as a poultice for open sores or wounds" (Moyle and Moyle 2001:184)."

**Tribal Rep
Comments**

An Infusion of roots is taken for diarrhea. A poultice of powdered roots is applied to sores.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name

Hierochloa odorata



Source: Copyright © 1999-2003 Sonja K. Keohane

Common Name

Sweetgrass

Indian Name

Wachanga (Gilmore 1991:14)
Peji' wacan'ga (sweetgrass grass), *wacan'ga* (sweetgrass) (Rogers, 1908:37)

General Uses

Ceremony (Zedeño, Basaldú, Hamm and Eisenberg 2001; Gilmore 1991; BARA 2002; Rogers 1980)
Other (Gilmore 1991; Rogers 1980; Bray and Bray 1993; BARA 2002)

"It was used for perfume and was burned as an incense in any ceremony or ritual to induce the presence of good influences or benevolent powers, while wild sage, a species of *Artemisia*, was burned to exorcise evil influences or malevolent powers. On Palm Sundays old Dakotas, members of the church, when they have received palms at the church, carry them home and tie sweet grass with them when they put them up in their houses. At the present time, it is said, some of the old people still carry sweet grass to church for the Palm Sunday service. This is from the old-time association of sweet grass with sacred ceremonies and things holy (Gilmore 1991:14)."

"Occurs in meadows and prairie swales. *Indian Name* means "sweetgrass grass." *Indian name* means "sweetgrass." According to Gilmore, sweetgrass was used for perfume, and was burned as incense in any ceremony to induce the presence of good influences, while sage (*Artemisia*) was burned to drive off evil influences (Rogers 1980:37)."

"The herb of perfume, *wachanra* coming from *wachanram nan*, good odor (issuing from whatever object) (Bray and Bray 1993:280-281)."

This important plant is used in the Seven Rites of the Oglala Sioux: the Keeping of the Soul; *Inipi*, the Rite of Purification; *Hanblecheyapi*, Crying for a Vision; *Wiwanyag Wachipi*, the Sun Dance; *Hunkapi*, the Making of Relatives; *Ishna Ta Awi Cha Lowan*, Preparing a Girl for Womanhood; and

**Tribal Rep
Comments**

Tapa Wanka Yap, the Throwing of the Ball (Brown [1953] 1989).

Sweetgrass leaves are ceremonially smoked with tobacco. The smoke from burning the grass is used to purify Sundance dancers. Strands of sweetgrass are also burned to bring good spirits back in, particular after sage has been burn to purify the area or person of bad spirits. It is used as a perfume. Pipestone is sometimes traded to Canadian Dakota for bundles of sweetgrass.

Sweetgrass may be used after sage to bring the good in; it can be used instead of sage if no sage is available. It grows near water but hasn't been seen at Pipestone for a long time. Pipestone is traded to Canadian Dakota for sweetgrass.

Many of the consultants asked about this plant and where it was in the monument. It was documented as late as 1954 (Truax and Linch 1954) but has not been seen for several years. Being a wet area plant, it may have been displaced by reed canarygrass (*Phalaris arundinacea*), which has taken over some parts of Pipestone Creek (Maurer et al. 2003). Given its cultural importance and the traditional importance of the creek, the re-establishment of sweetgrass along the creek is an important goal.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name

Lilium philadelphicum



Source: **Thomas G. Barnes** @ USDA-NRCS PLANTS Database. Last accessed spring 2004

Common Name

Wood-lily

Indian Name

Mnahica'hica (Rogers 1980:25)

General Uses

Food (Rogers 1980)
Medicinal (Rogers 1980; Johnson and Larson 1999)
Unspecified (BARA 2002)

Description of Uses

"*Mnahica'hica* means "very smelly flower." They have edible bulbs, but because of their beauty and relative rarity, they ordinarily should not be eaten. Gilmore says that the Dakota pulverized or chewed flowers of this plant and applied as an antidote for the bite of a small poisonous brown spider (Rogers 1980:25)."

"Dakota Indians used pulverized or chewed flowers as an antidote to treat brown spider bites (Johnson and Larson 1999:202)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Scientific Name

Lithospermum canescens



Source: **Larry Allain** @ USDA-NRCS PLANTS Databases. Last accessed spring 2004

Common Name

Hoary puccoon

Indian Name

Pejūta ha sāpa (black bark medicine), *Pejūta wahi'e sa* (red hail medicine)
(Rogers 1980:59)

General Uses

Medicine (Rogers 1980)
Manufacture (Johnson and Larson 1999)
Unspecified (BARA 2002)

Description of Uses

People take a powder of the roots when they are wounded in the chest
(Rogers 1980:59)."

"Hoary puccoon is known also as Indian paint, so named because of its dye
qualities (Johnson and Larson 1999:146)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Truax and Lyle 1954

Scientific Name

Lomatium orientale



Source: **R. Jackson**. April 2003. University of Colorado at Colorado Springs, El Paso County, Colorado. Last accessed spring 2004

Common Name

White wild parsley

Indian Name

Śahi'yela tatiŋ'psila (Cheyenne's turnip) (Rogers 1980:45)

General Uses

Food (BARA 2002; Rogers 1980)

Description of Uses

"Roots of various species of *Lomatium* were important foods for several western tribes (Rogers 1980:45)."

**Tribal Rep
Comments**

This plant is a very important food plant, the enlarged roots being eaten. It sometimes is called false carrot because the roots look like white carrots.

It is something that we'd dry and eat. Just like the turnips.

In Park

Scientific Name

Lonicera tatarica



Source: © Copyright **Mark Brand**, 1997-2001.
Last accessed spring 2004

Common Name

Tartarian honeysuckle

Indian Name

caŋi'skuye or cuŋwi'skuye (tree that sweetens) (Rogers 1980:64)

General Uses

Food (BARA 2002; Zedeño, Basaldú, Hamm and Eisenberg 2001; Rogers 1980)

Description of Uses

"Two species of this shrub occur in woods and shelterbelts across south Dakota. The berries are edible, but not especially good. Lakota name, *caniskuye*, and *cunwiskuye*, mean "a tree that sweetens (Rogers 1980:64)."

**Tribal Rep
Comments**

Although the berries are not very tasty, they can be eaten.

In Park

Truax and Lyle 1954

Scientific Name	<i>Monarda fistulosa</i> spp. <i>fistulosa</i> var. <i>mollis</i>
	
	Source: Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database 1992. Western wetland flora: Field office guide to plant species. Last accessed spring 2004
Common Name	Wild bergamot, horsemint
Indian Name	<i>Erhaka ta pejuta</i> (elk medicine) (DeMallie in Bray and Bray 1993:281) <i>Hehiaka ta pezhuta</i> (elk medicine), <i>hehiaka ta wote</i> (food of the elk) (Gilmore 1991:59) <i>Hehiaka tapejúta</i> (elk's medicine), <i>wahpē waštēmna</i> (sweet-smelling leaves) (Rogers 1980:78)
General Uses	Food (Rogers 1980) Ceremony (Moerman 1998) Medicinal (Moerman 1998; Gilmore 1991; Rogers 1980; Zedeño, Basaldú, Hamm & Eisenberg 2001; DeMallie in Bray & Bray 1993)
Description of Uses	"An infusion of leaves is used by women after confinement. Infusion of blossoms used for a "hard cold." Infusion of blossoms is used for fever. In ceremonies, the leaves were chewed while people were singing and dancing. Bunches of plants were also carried in bachelors' coats for the pleasant fragrance (Moerman 1998)." "By the Teton Dakota the flowers and leaves are boiled together to make a medicine which is drunk to cure abdominal pains (Gilmore 1991:59)." "Common in prairies and open woods throughout South Dakota. It is eaten fresh or dried as a potherb, or as a flavoring when cooking (it has the odor of oregano); tea. The leaves of <i>Hehiaka tapejúta</i> are chewed and put under a bandage to stop the flow of blood. A tea made from leaves, strained, put on soft cloth and placed on sore eyes overnight. A tea from the leaves is effective against whooping cough and other coughing. It is also good for people who faint (Rogers 1980:78)." "Brewed for soothing tea (Zedeño, Basaldú, Hamm and Eisenberg 2001)." "It is the plant that the Sioux call <i>Erhaka ta pejuta</i> (elk medicine) and the Canadians (call) the Beaume, with which they make Beaume tea, and which the savages use to make elk medicine (DeMallie in Bray and Bray 1993:281)."
Tribal Rep Comments	Used for unspecified purposes.
In Park	Nicollet 1838 Truax and Lyle 1954

Scientific Name

Nepeta cataria



Source: **Larry Allain** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Catnip

Indian Name

None given

General Uses

Food (Rogers 1980)
Medicinal (Rogers 1980)
Unspecified (BARA 2002)

"A common weed throughout South Dakota. Dried leaves are used as tonic tea (drink hot or cold); steep, don't boil. It is sometimes slightly hallucinogenic (Rogers 1980:78)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Truax and Lyle 1954

Scientific Name

Opuntia fragilis



Source: Richard W. Stoffle 2002

Common Name

Little prickly pear

Indian Name

Uṇhīcēla (or *Uṇkcēla*) *blaskā* (flat cactus), *Uṇhīcēla taŋ'ka* (large cactus)
(Rogers 1980:61)

General Uses

Unspecified (BARA 2002)

Description of Uses**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name	<i>Opuntia humifusa</i>  Source: J.S. Peterson @ USDA-NRCS PLANTS Database. Last accessed spring 2004
Common Name	Prickly pear
Indian Name	<i>Unchela</i> , <i>Unchela taspun</i> (the fruits) (Gilmore 1991:52)
General Uses	Food (Gilmore 1991; Moerman 1998; BARA 2002; Bray and Bray 1993) Medicinal (Gilmore 1991; Moerman 1998) Manufacture (Gilmore 1991) Play (Gilmore 1991)
Description of Uses	"The cut stems were used for rattlesnake bites. Fruit "insides" were eaten for thirst. The fruits were also eaten fresh, stewed, and dried and stored for winter use (Moerman 1998)." "An amusing summer game played by small boys of the Dakota Nation was the "cactus game." Boys gathered on the prairie where the cactus abounded. One boy who was a swift runner was chosen "to be it," as white children say in games. This boy would take a cactus plant and impale it on a stick. The stick served as a handle by which he held up the plant for the other boys to shoot with their bows and arrows. When a boy hit the target the target holder ran after him and would strike him with the spiny cactus; then he would return to the goal and receive the shots of other boys. Thus the game continued indefinitely at the pleasure of the players. The fruits were eaten fresh and raw after the bristles had been removed, or they were stewed. They were also dried for winter use. Sometimes from scarcity of food the Indians had to resort to the stems, which they roasted after first removing the spines. The mucilaginous juice of the stems was utilized as a sizing to fix the colors painted on hides or on receptacles made from hides. It was applied by rubbing a freshly peeled stem over the painted object. On account of this mucilaginous property the peeled stems were bound on wounds as a dressing (Gilmore 1991:52)." "The cactus Nicollet calls <i>Opuntia vulgaris</i>, now better know as <i>Opuntia humifusa</i>, was used by the Indians as food (Bray and Bray, 1993:93n)."
Tribal Rep Comments	<i>My uncle used it when I was a child. He would pick and squeeze out the water; it tasted good.</i>
In Park	Nicollet 1838

Scientific Name

Oxalis violacea



Source: **Jennifer Anderson** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Violet wood-sorrel

Indian Name

None given

General Uses

Food (Rogers 1980; Johnson and Larson 1999)
Medicinal (Johnson and Larson 1999)
Unspecified (BARA 2002)

Description of Uses

"The plants are tart, containing oxalic acid. Use a few leaves in a salad to spice it up (Rogers 1980:82)."

"Plains Indians ate leaves, flowers, and seed pods. Plants are known to be high in vitamin A. Leaves were also chewed to relieve thirst. Ground bulbs were fed to horses in the belief it would make them faster, various preparations were used as wormers, to increase the flow of urine, and to reduce fevers (Johnson and Larson 1999:210)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name

Physalis heterophylla



Source: William S. Justice @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Clammy ground cherry

Indian Name

Tamaniohpe (Gilmore 1991:61)

General Uses

Food (Gilmore 1991; Rogers 1980; Larson and Johnson 1999)
Medicinal (Rogers 1980; Larson and Johnson 1999)
Cultivated (BARA 2002)

"The fruits of the edible species, *P. heterophylla*, are made into a sauce for food by all these tribes. When sufficient quantity of them was found they were dried for winter (Gilmore 1991:61)."

"Four species across South Dakota in prairies and dry sandy areas. Unripe fruits may be poisonous, but the orange-colored ripe fruits are fine for pies or preserves. The Lakota name, *tamniohpi hu*, refers to womb or fetal membrane, and nest. (Perhaps reference to the way in which the fetus-like fruit is inside the persistent sac-like calyx.) Give 3 to 5 berries to one who has no appetite (Rogers 1980:96)."

"The ripe berries of all groundcherries are edible and were eaten by American Indians. Unripe berries are regarded as poisonous. Groundcherries were also used variously as medicines among the plains tribes (Larson and Johnson 1999:360)."

**Tribal Rep
Comments**

This plant was cultivated. It's related to the tomato (same family).

In Park

Scientific Name

Plantago major



Source: Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database 1992.
Western wetland flora: Field office guide to plant species.
Last accessed spring 2004

Common Name

Common plantain

Indian Name

Wihūta hu iyēceca (like cattail) (Rogers 1980:84)

General Uses

Food (BARA 2002; Zedeño, Basaldú, Hamm and Eisenberg 2001;
Rogers 1980)

Medicinal (BARA 2002; Zedeño, Basaldú, Hamm and Eisenberg 2001;
Rogers 1980)

"Seven species occur throughout South Dakota in dry prairie, or as a weed in meadows and lawns. *P. major* is the main edible species. Young plants as potherb or in salad; seeds eaten parched or ground into meal. Seeds have a mucilaginous coat; soaked in water and eaten raw for laxative. The Lakota name, *Indian name*, means "it is like *Indian name*" (cattail) (Rogers 1980:84)."

**Tribal Rep
Comments**

This plant was used for food and medicine.

In Park

Truax and Lyle 1954

Scientific Name

Plantago patagonica



Source: Richard W. Stoffle 2002

Common Name

Wooly plantain

Indian Name

Cañhilōgañ wapōśtañ kāgapi (herb to make a hat) (Rogers 1980:84)

General Uses

Medicinal (Zedeño, Basaldú, Hamm and Eisenberg 2001; Johnson and Larson 1999)
Manufacture (Rogers 1980)
Unspecified (BARA 2002)

"The common prairie species is called *Indian name*; it means "herb to make a hat" (Rogers 1980:84)."

"American Indians chewed leaves to relieve toothache and ate leaves to control internal hemorrhage (Johnson and Larson 1999:212)."

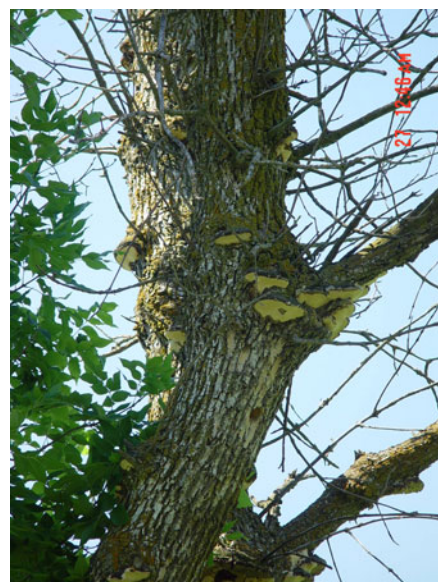
**Tribal Rep
Comments**

Used for unspecified purposes..

In Park

Scientific Name

Pleurotus spp.



Source: Richard W. Stoffle 2002

Common Name

Tree mushrooms

Indian Name

Chaⁿ nankpa (tree ears) (Gilmore 1991:9-10)

General Uses

Food (BARA 2002; Rogers 1980)

"This mushroom grows on dead tree trunks or stumps (e.g., elm, cottonwood, willow) and usually appears in late summer. In appearance, it somewhat resembles a bracket fungus, but is fan-shaped and stalked; the gills of the cap run down the stalk almost to the base. Many overlapping caps appear from a common base. Its texture is more soft than the next species (Rogers 1980:14)."

**Tribal Rep
Comments**

We would boil them for food.

In Park

Scientific Name

Polygonatum biflorum



Source: **Thomas G. Barnes** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Solomon's seal

Indian Name

Zuzēca tawōtē hu taŋkiŋ'yaŋ heca (it is a very large plant with stem like *Zuzēca tawōtē*, wolfberry (*Symphoricarpos*)) (Rogers 1980:28)

General Uses

Medicinal (BARA 2002; Zedeño, Basaldú, Hamm and Eisenberg 2001)
Food (Rogers 1980)

Description of Uses

"It occurs in rich woods throughout South Dakota. *Zuzeca tawote hu tankinyan heca*. Means "it is a very large plant with stem like *zuzeca tawote* (*Symphoricarpos*- wolfberry)." Young shoots can be eaten raw in salads, or cooked and eaten like asparagus. The starchy rootstocks can be added to stews or eaten like potatoes (Rogers 1980:28)."

**Tribal Rep
Comments**

This plant has medicinal applications.

In Park

Scientific Name*Populus deltoides*

Source: ©J.S. Peterson. USDA NRCS, NPDC, USDA ARS (left); **Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database 1995. *Northeast wetland flora: Field office guide to plant species.*** (right) Last accessed spring 2004

Common Name

Cottonwood

Indian Name*Wāga cha'* (Gilmore 1991:20)**General Uses**

Food	(Zedeño, Basaldú, Hamm and Eisenberg 2001; Rogers 1980; Johnson and Larson 1999; BARA 2002)
Medicine	(Zedeño, Basaldú, Hamm and Eisenberg 2001)
Manufacture	(Rogers 1980; Johnson and Larson 1999; BARA 2002)
Ceremony	(Rogers 1980; Johnson and Larson 1999; BARA 2002)
Play	(Rogers 1980; Johnson and Larson 1999; BARA 2002)

Description of Uses

"Common along rivers and lakes across South Dakota. The cottonwood trees which occurred along the Missouri River were the largest trees in South Dakota. Catkins can be eaten raw or in stews; inner bark eaten as emergency food. Leaf buds boiled for yellow dye (for feathers or arrows). The Lakota name, *canyah'u* ("peel off wood") and *waga can* ("take off wood") were so-called because in the olden times, horses would feed on the bark. Young branches make good forage for horses. The cottonwood is "sacred"; it is used as the sun-dance pole for several tribes. The leaves can be made into toy moccasins and tipis with slight folding. The bark was carved into toys (Rogers 1980:92)."

"Stripped inner bark served as a drought and winter food for horses for Plains Indians. Catkins and inner bark were as emergency human food. Children at play used leaves to make toy tipi encampments and moccasins. Leaf buds were boiled for a yellow dye. Several tribes held the tree sacred, using smaller trunks for sun dance poles (Johnson and Larson 1999:264)."

**Tribal Rep
Comments**

Wagachun, the rustling tree or cottonwood, stands at the center of the Sun Dance and represents the way of the people. Because it stretches from the earth to the heavens, it can carry the Sioux voices to *Wakan-Tanka*.

The inner bark was eaten in the spring for its pleasant, sweet taste and nutritive value. The fruit was used as chewing gum by children. Cottonwood

branches and bark were used as forage for horses. The seed vessels were boiled to make a yellow dye for pluming arrow feathers. The leaves were used by girls and young women to make a flute-like instrument. The leaves were also used by children to make toy tipis and by little girls to make toy moccasins. Green, unopened fruits were also used by children as beads and ear pendants in play. The plant was used in burials of old times. The wood was used for fuel and building materials.

In Park

Truax and Lyle 1954

Scientific Name

Potentilla arguta



Source: Richard W. Stoffle 2002

Common Name

Tall potentilla

Indian Name

None given

General Uses

Food (Rogers 1980)
Medicinal (BARA 2002)

Description of Uses

"About 15 herbaceous and one shrubby species throughout South Dakota in prairies, woods, wet areas. Thickened roots of some herbaceous species can be eaten in the spring, raw, roasted or boiled (Rogers 1980:90)."

**Tribal Rep
Comments**

This plant has medicinal applications.

In Park

Nicollet 1838

Scientific Name	<i>Prunus americana</i> Source: Larry Allain @ USDA-NRCS PLANTS Database. Last accessed spring 2004
Common Name	Wild plum
Indian Name	<i>Kaⁿte</i> (plum), <i>kaⁿte-hu</i> (plum tree) (Gilmore 1991:35) <i>kaŋ^ʔtaśa wi</i> (Rogers 1980:90)
General Uses	Food (Rogers 1980; Gilmore 1991) Ceremony (Rogers 1980; Gilmore 1991) Household Implement (Gilmore 1991) Medicine (Gilmore 1991) Unspecified (BARA 2002)
Description of Uses	"The fruit was highly valued for food, being eaten fresh and raw or cooked as a sauce. The plums were also dried for winter use. They were commonly pitted before drying. A broom for sweeping the floor of the dwelling was made by binding together a bundle of plum twigs. The plum was used because of its toughness and elasticity. Sprouts or young growths of the wild plum are used by the Teton Dakota in making <i>wauⁿyaⁿpi</i>. This is an offering or form of prayer, consisting of a wand, made preferably from a wild-plum sprout peeled and painted. If painted, the design and color are emblematic. Near the top of the wand is fastened the offering proper, which may take the form of anything acceptable to the higher powers. A small quantity of smoking tobacco is an article very frequently used for this purpose. No matter how small a portion of the thing offered is used, the immaterial self of the substance is in it. Such offerings are usually made for the benefit of the sick. <i>Wauⁿyaⁿpi</i> may be made by anyone at any place if done with appropriate ceremony, but the most efficient procedure is to prepare an alter with due ceremony and there set the wand upright with the offering fastened near the top (Gilmore 1991:35)." "Fruits eaten raw, cooked in a sauce, or dried for winter use (with or without the pits). The Lakota name, <i>kantahu can</i>, means "plum tree." (<i>Kanta</i> is the plum. <i>Kantasa wi</i> means "red plum moon"; this is the month of August when the plums are ripe.) According to Gilmore, the Lakota people used a plum-sprout wand in a <i>waunyanpi</i> (sacrifice) ceremony (Rogers 1980:90)."
Tribal Rep Comments	<i>They used to burn at PIPE about every two years; let it grow for two years and burn the following spring when the brome was 4"-6" high. This cycle kept smooth brome and plum under control.</i>
In Park	Nicollet 1838 Truax and Linch 1954

Scientific Name

Prunus pumil var. *besseyi*



Source: USDA-NRCS PLANTS Database / Herman, D.E. et al. 1996. *North Dakota tree handbook*. Last accessed spring 2004

Common Name

Sand-cherry

Indian Name

Aoⁿyeyapi (Gilmore 1991:36)

General Uses

Food	(Gilmore 1991; Rogers 1980; BARA 2002)
Ceremony	(Gilmore 1991; Rogers 1980)
Other	(BARA 2002)

Description of Uses

"The Dakota have a saying that if a person gathering cherries moves in the direction contrary to the wind the cherries will be good and sweet, but on the other hand if he moves with the wind the cherries will be bitter and astringent. The name *Indian Name* expresses this idea. All the tribes to whom the sand cherries were accessible made full use of them for food as a sauce during their fruiting season and laid up stores of them for winter by drying as they did the plums (Gilmore 1991:36)."

"Fairly common on dry hillsides throughout the Northern Plains, and especially in the Sand Hills Area. Fruits eaten fresh or dried. The Lakota name, *aunyeyapi hu*, means "to put on stem." This somehow expresses the idea that the fruits are bitter if approached with the wind, sweet if against the wind (Rogers 1980:90)."

**Tribal Rep
Comments**

Fruits eaten for food. Fruit used to paint the face.

In Park

Scientific Name

Prunus virginiana



HYPERLINK
"http://plants.usda.gov/cgi_bin/large_image_rpt.cgi?imageID=prvi_001_avp.jpg"



Source: Robyn Klein (left); **J.S. Peterson** @ USDA-NRCS PLANTS Database (right) Last accessed spring 2004

Common Name

Chokecherry

Indian Name

Chaⁿpa (Gilmore 1991:36)
Canpá hu (bitter-wood stem), *Canpá* (chokecherries), *Canpákaški* (mashed, dried berries), *Canpásapa wi* (July, when cherries are black; black cherry moon) (Rogers 1980:90,92)

General Uses

Food	(Rogers 1980; Johnson and Larson 1999; Zedeño, Basaldú, Hamm and Eisenberg 2001; BARA 2002)
Ceremony	(Rogers 1980)
Manufacture	(Rogers 1980)
Weaponry	(Rogers 1980)
Resource Acquisition	(Rogers 1980)
Folklore	(Rogers 1980)

	Medicine (Zedeño, Basaldú, Hamm & Eisenberg 2001; BARA 2002)
Description of Uses	"A large shrub common throughout the Northern Plains in thickets at margins of woods. Choke cherries were highly esteemed for food by all the plains tribes, and figure in ceremonies, songs and stories. They were eaten fresh and dried for winter use. The pits are difficult to remove so they were pounded to a pulp, pits and all, shaped into cakes and dried in the sun. (Pits contain cyanide and are poisonous eaten raw; pounding and drying or cooking makes them safe. Leaves and twigs are poisonous to stock.) <i>Wasná</i> is tallow or marrow, usually with pounded dry meat. It was mixed with pounded dried corn sometimes, called <i>wagméza wasná</i>; called <i>canpá wasná</i> when mixed with dried pounded cherries. (This mixture of tallow, dried meat and fruit is very concentrated and nutritious; it is commonly called pemmican, a Cree word. Chokecherry stems were used for arrows (Rogers 1980:90-92)." "Plains Indians ate the fruit fresh or dried and depended on it as a principal ingredient in the dried meat-fat-fruit mix called pemmican. Ckokecherries are well known for wine and jelly (Johnson and Larson 1999:262)." "Food. Medicine to clean the intestines (Zedeño, Basaldú, Hamm and Eisenberg 2001)."
Tribal Rep Comments	This plant is useful and culturally important for food and medicine to clean out the intestines. In particular, jam is made from the berries. <i>Besides food, it's a medicine to clean the intestines, although other chokecherry parts will constipate. It's useful and important to us.</i>
In Park	Truax and Lyle 1954

Scientific Name

Psoralea argophylla



Source: Richard W. Stoffle 2002

Common Name

Silvery scurf-pea

Indian Name

Ti'canicahu (long-billed curlew stem) (Rogers 1980:74)

General Uses

Medicine (BARA 2002; Rogers 1980; Johnson and Larson 1999)
Manufacture (Rogers 1980)

Description of Uses

"*Indian name* means "long-billed curlew stem"; this word refers to "one that doesn't have a home." The tough green stems of this plant were made into a sort of basket in which to carry meat home. The plant is used as a medicine. The root is fed to horses when they are tired (Rogers 1980:74)."

"Many tribes made a tea for curing constipation, and ground foliage mixed with grease was used as a body rub for high fever. Dakota Indians used a decoction of the plant to wash horse wounds (Johnson and Larson 1999:188)."

**Tribal Rep
Comments**

This plant has medicinal uses. It is a tea for constipation, and the ground foliage is mixed with grease to use as a body rub for high fevers.

In Park

Scientific Name

Psoralea esculenta (syn. *Pedimelum esculentum*)



Source: Richard W. Stoffle 2002

Common Name

Breadroot scurf-pea, shaggy prairie-turnip, Indian breadroot, prairie turnip, Indian turnip, tipsin

Indian Name

Tipsi' or *tipsi'na* (Dakota), *Tipsinla* (Teton) (Gilmore 1991:40)
Tij'psila, *Tij'psila itkāhica wi* (June, the month when the seed pods mature) (Rogers 1980:74)

General Uses

Food	(Gilmore 1991; Rogers 1980; Bray and Bray 1976; BARA 2002; Moyle and Moyle 2001)
Ceremony	(Gilmore 1991; BARA 2002)
Medicinal	(BARA 2002)
Folklore	(Gilmore 1991; BARA 2002)

Description of Uses

"The roots of this plant were an important item of the vegetal diet of the Plains tribes. After being peeled they were eaten fresh and uncooked or cooked. Large quantities were dug in June and early July to peel and dry for the winter food supply. The peeled roots were braided in long strings by the tapering ends, as strings of garlic are braided by the tops. The root is both farinaceous and glutinous and seems to form a desirable food with a palatable taste characteristic of the bean family. Growing as this plant does, on the dry prairie in hard ground, with the enlargement of the root several inches below the surface, it is no easy task to harvest it. The top of the plant breaks off soon after ripening, and is blown away, scattering the seed, so the root is then almost impossible to find; hence it must be harvested before this occurs. The top usually has three or four branches. When the women and children go to the prairie to gather the roots, on finding a plant the mother tells the children to note the directions in which the several branches point and a child is sent in the general direction of each branch to look for another plant, for they say the plants "point to each other". *Psoralea* has so important a place in the economy of the Plains tribes and has had for so long a time that it enters into their mythology, folklore, stories, and sleight-of-hand tricks (Gilmore 1991:40-41)."

"This was the most important plant item in the diet of the Plains tribes. An enlargement of the root occurs several inches below the surface. Large quantities were dug in June-July, peeled, dried, braided in strings by the tapering tips. They are eaten raw, or cooked fresh, as well as after drying. (The possible derivation of this word is discussed by Gilmore. *Zizania*, wild

**Tribal Rep
Comments**

rice, *psig* was the most important plant food of the Dakota/Lakota people while in Minnesota. The word *Tig'psila* may be derived from words for prairie and rice, referring to the fact it became an important substitute plant food as they moved west to the prairie (Rogers 1980:74)."

"Now some families of Indians occupy these islands, to live on the *tipsinna* (*Psoralea esculenta* or Prairie turnip) and a little hunting (Bray and Bray 1976:51)."

"An important food plant of Native Americans of the Great Plains, who dug the thick, turnip-like root to obtain the central starchy portion. The Dakota called it *Teepsenee*, and early French explorers of Minnesota named the Pomme de Terre River after it (Moyle and Moyle 2001:147)."

The root is used for food; flowers and root can be used medicinally. Indigenous management included leaving part of the root so it would grow back. It had to be harvested during or after flowering before the tops broke off so the plant could be located. Seeds were gathered for planting elsewhere.

They have a special shovel that allows them to expose the tuber, take what is needed, and put back the rest so it will regrow. It can be dug up, peeled, and eaten raw, or dried, braided, and put in soup, usually corn or beef. Once dried, the roots can be kept for as long as three decades. The roots could get woody overtime but always maintained the same sugar level. Sometimes the roots and seeds were traded or sold to settlers.

Those were always dried. Cut 'em up real small and put them in soups. And the berries, we'd mash them up and make cakes out of them." It has some medicinal uses. The flowers and the roots are used.

[Indigenous Management included] to leave part of the root so it would grow back. The plant had to be dug or harvested during or after flowering before the tops broke off and you couldn't find the roots. Sometimes seeds were gathered for planting elsewhere. The turnip plants are paired and wherever the largest flower points is where the next plant should be. The plants lean toward each other so if you find one, you can locate the other.

The occurrence of the Sun Dance at PIPE won't hurt the turnip because it happens after the tops have disappeared, but the scarcity of the turnip region-wide has made it very sacred.

In Park

Nicollet 1838

Scientific Name

Quercus macrocarpa



Source: ©2003 Virginia Tech Forestry Department

Common Name

Bur oak

Indian Name

Uskuyecha-hu (Gilmore 1991:23)
Ūtahu caŋ (acorn stem tree), *Ūtā* (acorn) (Rogers 1980:74)

General Uses

Food (Rogers 1980; Zedeño, Basaldú, Hamm and Eisenberg 2001; BARA 2002)
Manufacture (Zedeño, Basaldú, Hamm & Eisenberg 2001; BARA 2002)
Medicinal (Rogers 1980; Johnson and Larson 1999)

Description of Uses

"The only native species of oak in South Dakota; occurs as the dominant tree in upland forests of eastern and parts of western South Dakota, including lower elevations of the Black Hills. Gilmore uses this same name for *Q. borealis*, red oak, which occurs in northeastern Nebraska. This was the preferred species for eating acorns; Gilmore says the bitter properties were extracted by leaching acorns with wood ashes (especially from basswood). Bark from the roots of oak trees was medicinal for bowel trouble, especially in children. Other ways listed to prepare acorns: dry, power them and pour boiling water through to remove the tannin; dry, boil two hours, pour off water, soak two days in cold water with occasional changes, then dry and grind; resultant flour used for bread (Rogers 1980:74)."

"Some tribes used scrapings from oak bark and roots in a boiled concentrate for bowel problems (Johnson and Larson 1999:258)."

"Food. Wood. Acorns ground to flour (Zedeño, Basaldú, Hamm and Eisenberg 2001)."

**Tribal Rep
Comments**

Oak had many purposes. It was used for food, and the wood was used. Acorns were ground for flour. They roasted the acorns. [Management-wise] it should never be cut.

In Park

Truax and Lynch 1954

Scientific Name

Rhamnus cathartica



Error!

Source: © Copyright Mark Brand, 1997-2001.
Last accessed spring 2004

Common Name

Common buckthorn

Indian Name

None given

General Uses

Medicine (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"A large thorny shrub commonly planted for hedges and widely escaped. The leaves and fruits are cathartic (laxative) (Rogers 1980:90)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Scientific Name*Rhus glabra*

Source: Larry Allain @ USDA-NRCS PLANTS Database. Last accessed spring 2004

Common Name

Smooth sumac

Indian Name

Chaⁿ-zi (yellow wood), (*zi* = yellow) (Gilmore 1991:47)
Canzi' (yellow wood) (Rogers 1980:43)

General Uses

Food	(Rogers 1980; Johnson and Larson 1999; Zedeño, Basaldú, Hamm and Eisenberg 2001; BARA 2002)
Medicinal	(Johnson and Larson 1999; Zedeño, Basaldú, Hamm and Eisenberg 2001; Moerman 1998)
Ceremony	(Gilmore 1991; Rogers 1980; Johnson and Larson 1999; BARA 2002)
Manufacture	(Rogers 1980; Johnson and Larson 1999; Zedeño, Basaldú, Hamm and Eisenberg 2001; BARA 2002)

Description of Uses

"In the fall when the leaves turned red they were gathered and dried for smoking by all the tribes (Gilmore 1991:47-48)."

"A common shrub on slopes of draws across South Dakota. The berries can be bruised in water, the liquid strained and sweetened, and drunk like lemonade. Leaves are smoked when they turn red in the fall. The roots are used for a yellow dye (Rogers 1980:43)."

"It has a rich history of American Indian and early European use as well, with leaves, bark, roots, and fruits providing the makings for tea, flour, wound cleaner, salve, tobacco, and dye. A lemonade-like beverage is made by stirring the fruits in water and adding sugar (Johnson and Larson 1999:240)."

"Sioux Drug (Antihemorrhagic). Decoction of fruits used by women for hemorrhaging after parturition; (Dermatological Aid) Poultice of bruised and wetted leaves or fruits used for poisoned skin; (Urinary Aid) Infusion of roots used for urine retention and painful urination (Moerman 1998)."

"Stems used for pipes. Also used for maple taps. Sumac root juice for the eyes" (Zedeño, Basaldú, Hamm and Eisenberg 2001)

***Tribal Rep
Comments***

This plant has replaced ash, which is now in limited supply, as the traditional pipestem. Today, it is used for replacing and protecting ash, however, the sumac in Pipestone is too small for such use. It can be used for maple taps and ceremonial purposes. It was smoked with tobacco. Sumac has other uses that could not be shared.

That one's real...it makes your mind, as soon as you smell it, it will take you somewhere, instantly. (I) shouldn't share too much about it because tourists will take it and it will be gone.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name

Rhus radicans (syn. *Toxicodendron rydbergii*)



Source: William S. Justice @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Poison ivy

Indian Name

Wikōśka tapejūṭa (Rogers 1980:45)

General Uses

Medicinal (Zedeño, Basaldú, Hamm and Eisenberg 2001; BARA 2002)

Description of Uses

"It occurs throughout South Dakota as a shrub in open woods and around rocks in prairies, and as a woody vine, especially in alluvial woods. All plant parts can cause a severe inflammation of the skin from contact or from smoke of burning plants. People become increasingly susceptible with repeated exposure. It is apparently not poisonous to stock to eat. Children have developed digestive tract irritation from eating the white berries. Laundry soap, epsom salts, baking soda, boric acid, and many commercial preparations are available to help dry up the rash and soothe the itching. A fluid extract of *Grindelia* (#94), is reported to help. The Lakota name, *Indian name*, means "young woman's venereal disease medicine." Perhaps the rash resembles V.D. (It is not a medicine.) (Rogers 1980:45)."

**Tribal Rep
Comments**

This plant is not really used. People who get it really bad can eat it and become immune; it takes a couple of weeks to get rid of the internal rash.

In Park

Truax and Lyle 1954

Scientific Name

Rosa arkansana var. *suffulta*



Source: Richard W. Stoffle 2002

Common Name

Dwarf prairie rose

Indian Name

O'zhí'zhí'tka, *O'zhí'zhí'tka-hu* (rosebush) (Gilmore 1991:33)
Onjín'jín'tkahu, *Onjín'jín'tkahu caŋ* (wild rose bush) (Rogers 1980:92)

General Uses

Food	(Gilmore 1991; Rogers 1980; Johnson and Larson 1999; Zedeño, Basaldú, Hamm and Eisenberg 2001)
Ceremony	(Gilmore 1991)
Medicinal	(Johnson and Larson 1999; Zedeño, Basaldú, Hamm and Eisenberg 2001)
Unspecified	(BARA 2002)

Description of Uses

"The fruits are sometimes eaten to tide over a period of food scarcity. It is said that the inner bark of the rosebush was sometimes used for smoking, either alone or mixed with tobacco (Gilmore 1991:33)."

"Common shrubs in prairies and thickets throughout the region. The petals are eaten in salad or jellied. The red round rose hips are not really the fruits, but are the enlarged fleshy receptacle; the fruits are the "seeds" found inside the hip. Hips are used for jelly or jam; they are high in Vitamin C. Hips can be sliced, the "seeds" scraped out and the fleshy portion dried for "fruit leather", a trail snack. The town of Rosebud is called *Onjín'jín'tka*. According to Gilmore, the fruits were considered to be an emergency food. The fondness for the plant was aesthetic, for the flowers (Rogers 1980:92)."

"Plains Indians used rose for many ailments, ate hips in emergencies, and used leaves for tea and new shoots in cooking (Johnson and Larson 1999:262)."

Food, tea, medicine (Zedeño, Basaldú, Hamm and Eisenberg 2001).

**Tribal Rep
Comments**

Use for unspecified purposes.

In Park

Scientific Name

Rubus occidentalis



Source: **Jennifer Anderson** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Black raspberry, black-cap

Indian Name

Takaⁿhecha, Takaⁿhecha-hu (raspberry bush) (Gilmore 1991:32)
Takan^h hecala hu (stem like sinew) (Rogers 1980:92)

General Uses

Food (Gilmore 1991; Zedeño, Basaldú, Hamm and Eisenberg 2001; BARA 2002)

Description of Uses

"All the tribes used the berries for food, fresh in season, or dried for winter use. Young leaves were steeped to make a drink like tea (Gilmore 1991:32-33)."

Takan^h hecala hu refers to string-like runners (Rogers 1980:92).

Food from berry (Zedeño, Basaldú, Hamm and Eisenberg 2001).

**Tribal Rep
Comments**

The berries were eaten.

In Park

Truax and Lyle 1954

Scientific Name

Sagittaria latifolia



Source: Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database / USDA NRCS. 1992. *Western wetland flora: Field office guide to plant species*. West Region, Sacramento, CA. Last accessed spring 2004

Common Name

Common arrow-head

Indian Name

Pshitola (Gilmore 1991:13)
Highaŋ' tahaŋ'pe (owl's moccasin), *pśitōla hu* (small bead stem) (Rogers 1980:21)

General Uses

Food (Gilmore 1991; Rogers 1980; Moyle and Moyle 2001)
Medicinal (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"By all these tribes the tubers were used for food, prepared by boiling or roasting (Gilmore 1991:13)."

"Common in marshes throughout South Dakota (five species). *Indian name*. Means "owl's moccasin." Name refers also to an appendix to the buffalo's heart, arrow-head shaped as are the leaves of this plant. Roots are edible and also eaten as medicine. Small (one to two inch) tubers are produced at the ends of rhizomes, often a foot or more from the parent plant. When loosened (by a stick or by your foot), they float to the top. They should be gathered in late summer or fall. They may be eaten boiled or roasted (Rogers 1980:21)."

"Also called Wapato and Duck Potato. Native Americans called them Swan Potatoes and dried them for winter food (Moyle and Moyle 2001:68-69)."

**Tribal Rep
Comments**

Use for unspecified purposes.

In Park

Truax and Lyle 1954

Scientific Name

Salix alba



Source: R.W. Stoffle 2002; inset USDA-NRCS PLANTS Database

Common Name

White willow

Indian Name

Wahpe-popa (generic) (Gilmore 1991:21)

General Uses

Food (Hedrick 1972; Kunkel 1984; Schofield 2003; Tanaka 1976; Usher 1974)
Manufacture (Moerman 1998; Zedeño, Basaldú, Hamm and Eisenberg 2001)
Medicinal (Bown 1995; Chevallier 1996; Chiej 1984; Foster and Duke 1990; Grieve 1984; Launert 1981; Lust 1983; Mills 1997; Rogers 1980; Weiner 1980)
Household Implement (Zedeño, Basaldú, Hamm and Eisenberg 2001)
Unspecified (BARA 2002)

Description of Uses

"One of several species used for poles to sustain the thatch of the earth lodges and to form the frame of the bath lodges (Moerman 1998)."

"The pain killer *salicin* was originally isolated from *S. alba*, and is the main ingredient of aspirin (Rogers 1980:940)."

"Frame for basket. Utensils" (Zedeño, Basaldú, Hamm and Eisenberg 2001)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Nicollet 1838

Scientific Name

Salix exigua



Source: **Robert H. Mohlenbrock** @ USDA-NRCS PLANTS Database 1989. Last accessed spring 2004

Common Name

Sandbar willow

Indian Name

Wahpe-popa (generic) (Gilmore 1991:21)

General Uses

Manufacture (Rogers 1980; Johnson and Larson 1999; Zedeño, Basaldú, Hamm and Eisenberg 2001; BARA 2002)
Ceremony (Rogers 1980; Johnson and Larson 1999; BARA 2002)

Description of Uses

"Perhaps the most common of the shrubby willows. The flexible stems are used as a framework for sweat-lodges, and were peeled and used in basketry (Rogers 1980:94)."

"Its long, flexible stems are favored for baskets, furniture construction, and sweat lodges (Johnson and Larson 1999:266)."

"Frame for basket. Utensils. Weaving (Zedeño, Basaldú, Hamm and Eisenberg 2001)."

**Tribal Rep
Comments**

Branches used for building sweatlodges. Peeled bark used for tying together sweatlodge poles.

In Park

Nicollet 1838

Scientific Name

Salix nigra



Source: **Larry Allain** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Black willow

Indian Name

Wahpe-popa (generic) (Gilmore 1991:21)

General Uses

Manufacture (Zedeño, Basaldú, Hamm and Eisenberg 2001)
Household implement (Zedeño, Basaldú, Hamm and Eisenberg 2001)

Description of Uses

"Frame for basket. Utensils (Zedeño, Basaldú, Hamm and Eisenberg 2001)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Nicollet 1838

Scientific Name

Salix spp.



Source: USDA-NRCS PLANTS Database / Herman, D.E. et al. 1996.
North Dakota tree handbook. Last accessed spring 2004

Common Name

Willow

Indian Name

Wahpe-popa (generic) (Gilmore 1991:21)
cohiwan'jica (Lakota generic) (growing in groups), *wahpē pōpa caŋ* (leaf burst tree) (Rogers 1980:94)

General Uses

Food (Rogers 1980; Johnson and Larson 1999)
Medicinal (Rogers 1980; Johnson and Larson 1999)
Ceremony (Johnson and Larson 1999; BARA 2002)
Manufacture (Zedeño, Basaldú, Hamm and Eisenberg 2001; BARA 2002)

Description of Uses

" There are about a dozen species of willows (mostly shrubs) along streams and pond margins throughout South Dakota. A general use is that the inner bark can be eaten as emergency food (it is better if dried and ground as flour). A tea from willow bark was used by tribes throughout North America for various purposes, primarily to do with fever, headache, etc (Rogers 1980:94)."

Salix amygdaloides "Inner bark of willows was used as an emergency food. Some tribes made a tea from willow bark to treat headache and fever. During the sun dance unbranched stems were wrapped around limbs of dancers in the belief the stems had the capacity to help thirsty dancers (Johnson and Larson 1999:264)."

Frame for basket, utensils, weaving (Zedeño, Basaldú, Hamm and Eisenberg 2001).

Tribal Rep Comments

Willows are used to make many things from baskets to sweat lodges. Poles are used to sustain the thatch of the earth lodges and to form the frame of the bath lodges. Some have medicinal properties and some are used in ceremonies.

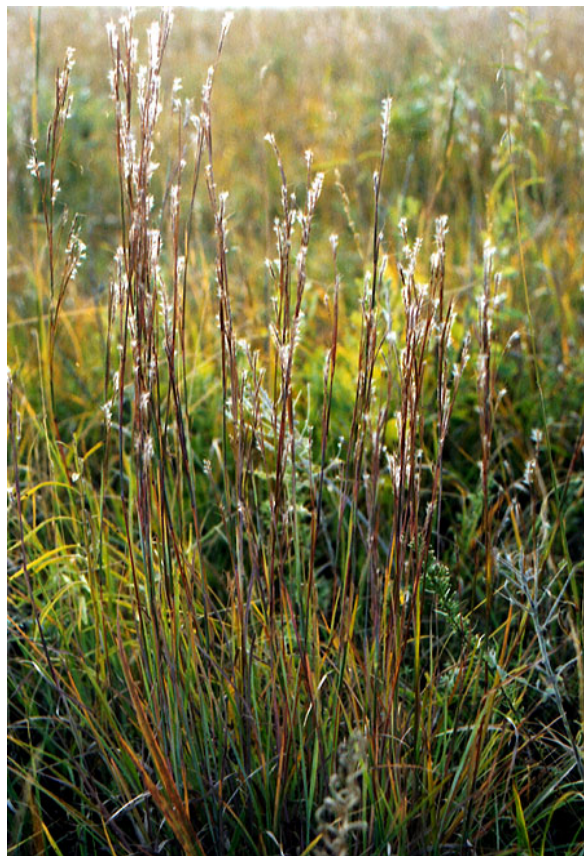
Twelve to sixteen young willows are used to construct the sweat lodge for many things including the Rite of Purification and Crying for a Vision. The willows are set up so that they mark the four quarters of the universe so that the lodge is an image of the universe.

In Park

Nicollet 1838

Scientific Name

Schizachyrium scoparium



Source: Copyright 1997-2002 Mike Haddock

Common Name

Little bluestem

Indian Name

None given

General Uses

Manufacture (BARA 2002)

Description of Uses**Tribal Rep
Comments**

This grass was used for insulation but big bluestem was preferred. They would place it between the pole and the hide to keep out the wind and cold. By the time they were ready to use the grasses, the seeds had already fallen.

In Park

Scientific Name

Shepherdia argentea



Source: USDA-NRCS PLANTS Database / Herman, D.E. et al. 1996. **North Dakota tree handbook**. Last accessed spring 2004

Common Name

Buffalo-berry

Indian Name

Maštĩŋca pūtē caŋ (rabbit lip tree) (Rogers 1980:68)

General Uses

Food (Rogers 1980; Larson and Johnson 1999)
Ceremony (Moerman 1998)
Unspecified (BARA 2002)

Description of Uses

"Fruit eaten fresh in season or dried for winter use. Fruit used occasionally in ceremonial feasts at female puberty rites (Moerman 1998)."

"A large thorny shrub fairly common in ravines across South Dakota. The tart berries (red when ripe) make good jelly. They can be dried for winter use (Rogers 1980:68)."

"American Indians ate the tart fruit fresh or dried for winter. The fruit is also used in stews; it contains pectin and makes excellent jelly. Fruit is best harvested after the first frost and is most easily gathered by shaking branches and catching the fruits in a sheet spread on the ground (Larson and Johnson 1999:508)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Scientific Name

Smilacina stellata



Source: **W. Carl Taylor** @ USDA-NRCS PLANTS Database, **1992. Western wetland flora: Field office guide to plant species.** Last accessed spring 2004

Common Name

False Solomon's seal

Indian Name

Yapi'zapi hu (produce sucking or musical sounds with its stem)
Zuzéca tawóte hu iyeéceca (it is like *Zuzéca tawóte* stem (snowberry))

General Uses

Food (Rogers 1980)
Medicinal (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"It is common in open woods across South Dakota. Young shoots can be eaten raw in salads or cooked and eaten like asparagus. The rootstocks are said to be edible if soaked in lye overnight to remove the bitterness and then boiled. The berries are edible, but have a laxative effect (Rogers 1980:28)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name

Solidago gigantea



HYPERLINK
"http://plants.usda.gov/cgi_bin/large_image_rpt.cgi?imageID=sogi_002_avp.tif"



Source: Richard W. Stoffle 2002 (left); **Thomas G. Barnes** @ USDA-NRCS PLANTS Database / Barnes, T.G. & S.W. Francis. 2004. **Wildflowers and ferns of Kentucky**. Last accessed spring 2004

Common Name

Smooth goldenrod

Indian Name

Caṇnuṇ'ḡa hu pteptēcela (short enlarged or lumpy stem)(Rogers 1980:56)

General Uses

Medicinal (Rogers 1980; BARA 2002)
Food (Larson and Johnson 1999)

Description of Uses

"Ten species present in prairies throughout South Dakota. Leaves or flowers dried for tea; young leaves for potherb; antiseptic lotion from boiled stems and leaves. [The name] may refer to the spherical galls (caused by insects) which occur in the stems of several species (Rogers 1980:56)."

"Canada goldenrod (*S. canadensis*) was used both as food and medicine by American Indians. Young leaves can be cooked and eaten like spinach. Teas made from the dried flowers, leaves, or roots have been ascribed various health benefits, and an antiseptic lotion was prepared by boiling the stems and leaves. The Lakota name for goldenrods means "short enlarged or lumpy stem," no doubt a reference to the swollen insect galls common especially on this species (Larson and Johnson 1999:139)."

**Tribal Rep
Comments**

"Giant goldenrod was likely used interchangeably with Canada goldenrod (*S.canadensis*) for food and medicinal purposes (Larson and Johnson 1999:1400."

Insects form large, round galls on some stalks that can be used as an eye medicine. This plant is usually found growing with cattails.

We call it eyeball medicine. The bad thing is that they have to spit it in your eye; they chew it and spit it. I've seen cataracts disappear.

In Park

Scientific Name*Stipa spartea*

Source: **Larry Allain** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Porcupine-grass

Indian Name

Mi'capéca , *wi'capéca* (to stab or pierce), *Mi'capéca oŋ kici'opi* (game of throwing seedheads as spears) (Rogers, 1908:40)

General Uses)

Play (Rogers 1980; Johnson & Larson 1999; BARA 2002)
Resource Acquisition (Bray and Bray 1976)

Description of Uses

"*Mi'capéca oŋ kici'opi* a mischievous game in which boys would throw a bunch of these grass-heads at people to stick (Rogers 1980:40)."

"Long-awned needles still serve as miniature spears for children at play (Johnson and Larson 1999:74)."

"*Witchapetcha*, the plant that pricks (*a sharp-bearded grass*), belonged to the Sioux hunting calendar. When it is ripe it takes a black color; the top is very prickly and attaches itself easily to whatever rubs it in passing so that the animals can no longer walk on the prairies without hurting themselves. Then the buffalo leave the prairies to take refuge in the woods where the hunters go to find them. This plant is the *Stipa barbata* of (Andre) Michaux or *Stipa avenacia* (*black oat-grass*) of Linnaeus (Bray and Bray 1976)."

**Tribal Rep
Comments**

Grass heads used in games in which boys throw a bunch at people to stick them.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name

Symphoricarpos occidentalis



Source: **Kitty Kohout** @ Wisconsin State Herbarium.
Last accessed spring 2004

Common Name

Wolfberry, snowberry

Indian Name

Zuzecha-ta-wote sapsapa (black snake food) (Gilmore 1991:64)
Oŋ súŋk'nasapi hu (stems to hunt dogs with), *Zuzēca tawōtē* (snake's food) (Rogers 1980:64)

General Uses

Food (Rogers 1980)
Medicinal (Gilmore 1991; Hart 1992; Johnson and Larson 1999; Moerman 1998)
Weaponry (Rogers 1980)
Play (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"Decoction of berries used as a diuretic" (Moerman 1998)

"The leaves were steeped to make an infusion used for weak or inflamed eyes (Gilmore 1991:64)."

"A common shrub on hillsides and in ravines across South Dakota. The white fruits are edible, but not especially good. They used to make arrows of the bush and shoot them at dogs in play (Rogers 1980:64)."

"Dakota used the leaves in an eyewash to treat eye irritation (Johnson and Larson 1999:246)."

**Tribal Rep
Comments**

The white berries of this plant convey mixed messages to those who know about it. While it has medicinal qualities, its use is discouraged suggesting that it may have cultural restrictions.

We were told to stay away from the white snowberry; it was no good.

In Park

Truax and Lyle 1954

Scientific Name	<i>Taraxacum officinale</i>  Source: Larry Allain @ USDA-NRCS PLANTS Database. Last accessed spring 2004
Common Name	Common dandelion
Indian Name	None given
General Uses	Medicinal (Zedeño, Basaldú, Hamm & Eisenberg 2001; BARA 2002) Manufacture (BARA 2002) Folklore (BARA 2002) Food (Rogers 1980; BARA)
Description of Uses	"A common weed across the state. Nearly all parts edible, but they must be got young (before turning bitter). Beware of pesticide-contaminated areas. Leaves raw or cooked (add boiling water to leaves); flower buds cooked; roots in early spring boiled (two waters) and eaten, or roasted and ground for "coffee" (Rogers 1980:56)."
Tribal Rep Comments	<i>This plant is used in medicine to relieve constipation.</i> <i>It is used for wine, making necklaces, and the young leaves are used in salad. It's part of the folklore as well.</i>
In Park	Truax and Lyle 1954

Scientific Name

Tradescantia bracteata



Source: Richard W. Stoffle 2002

Common Name

Sticky spiderwort

Indian Name

Caŋhilōgaŋ paŋpaŋ'la (soft or tender herb) (Rogers 1980:23)

General Uses

Food (Rogers 1980; Johnson and Larson 1999)
Manufacture (Rogers 1980; BARA 2002)
Folklore (Rogers 1980; Johnson and Larson 1999)

Description of Uses

"Fairly common in sandy prairies across South Dakota. Blue flowers provided a blue jelly- like paint, used to paint moccasins. Gilmore says that young Dakota men when in love and finding this lovely flower, would sing songs to it, equating the beauty of the flower with their sweetheart. The stem and leaves may be eaten as a potherb (Rogers 1980:23)."

"The simple geometry and elegant coloring of the blossoms inspired Dakota men to salute spiderwort in love songs. The entire plant is edible; flowers are used to garnish salads; young stems and leaves are used either raw in salads or cooked as a pot herb (Johnson and Larson 1999:162)."

**Tribal Rep
Comments**

The purple flower makes a good dye that doesn't fade.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name

Tragopogon dubius



Source: **Brother Alfred Brousseau** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Fistulous goat's beard

Indian Name

None given

General Uses

Food (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"Common in prairies and as a weed across South Dakota. Leaves for salad or potherb; spring roots (before blooming) cooked (Rogers 1980:59)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Scientific Name

Trifolium repens



Source: **Larry Allain** @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

White clover

Indian Name

None given

General Uses

Food (BARA 2002; Rogers 1980)

Description of Uses

"Very common in lawns. Leaves for salad or potherb; blossoms in salad; dried blossoms in pancakes or used for tea (Rogers 1980:74)."

**Tribal Rep
Comments**

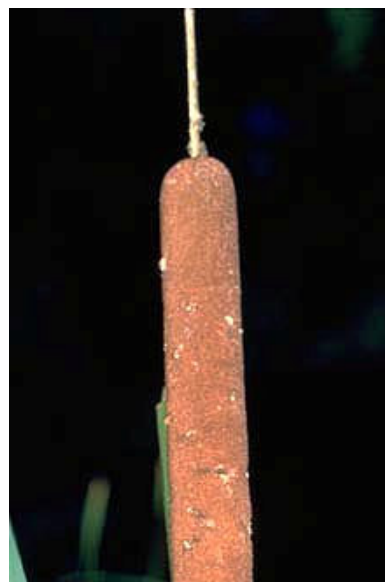
The flowers were eaten.

In Park

Truax and Lyle 1954

Scientific Name

Typha latifolia



Source: Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database / USDA
NRCS. 1992. *Western wetland flora: Field office guide to plant species*.
Last accessed spring 2004

Common Name

Common cat-tail

Indian Name

Wihuta-hu (bottom of the tipi plant) (Gilmore 1991:12)
Wihūta hu (lower border of tent stem), *hiŋtkan'* (refers to the hairy fruit)
(Rogers 1980:40)

General Uses

Food (Rogers 1980;BARA 2002)
Medicinal (Gilmore 1991; Rogers 1980; Larson and Johnson 1999)
Manufacture (Gilmore 1991; Rogers 1980; Larson and Johnson 1999;
BARA 2002)
Bathing/Cleaning (Gilmore 1991; Rogers 1980; Larson and Johnson 1999;
BARA 2002)

Description of Uses

"Poultice of fruit spikes' down and coyote fat applied to smallpox pustules
(Moerman 1998)."

"The down was used to make dressings for burns and scalds; on infants, to prevent chafing, as we use talcum; and as a filling for pillows and padding for cradle boards and in quilting baby wrappings. In a family in which the birth of a child was expected the women busied themselves in collecting a great quantity of the down of *Typha*, in a mass of which was laid on the newborn infant; that which adhered after drying the mother removed by manipulation after moistening with milk from her breasts. Cotton fabrics were unknown to the Plains tribes previous to the coming of white traders, hence, instead of cotton diapers, pads of cat-tail down were used for the purpose by the mothers in these tribes (Gilmore 1991:12-13)."

**Tribal Rep
Comments**

In Park

"Two species are common in marshy areas throughout South Dakota. Rootstocks may be boiled or roasted, or dried and make into flour (fall to early spring). New shoots may be eaten raw or cooked (spring to early summer). Pollen may be used as flour. Young flowering spikes (when the flowers are unopened, about June) may be boiled and eaten like corn on the cob. Cattail leaves have been used in weaving. The cattail down was used for dressing wounds and burns, for padding cradleboards, stuffing pillows, etc. The fluffy fruits called *hanʔkaŋ'* are used to make a sort of quilt that does not allow water to penetrate (i.e. like diapers). It is placed over sheeting and used for babies (Rogers 1980:40)."

"Fluff of the ripened spikes was used by American Indians as a wound dressing, pillow stuffing, and as a useful absorptive and insulating material, e.g., diapers for babies (Larson and Johnson 1999:361)."

Food. Pads for diapers.

Truax and Lyle 1954

Scientific Name

Ulmus pumila



Source: **Robert H. Mohlenbrock** @ USDA-NRCS PLANTS Database / USDA
NRCS. 1992. *Western wetland flora: Field office guide to plant species*.
Last accessed spring 2004

Common Name

Elm

Indian Name

None given

General Uses

Medicinal (Zedeño, Basaldú, Hamm and Eisenberg 2001)
Unspecified (BARA 2002)

Description of Uses**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Scientific Name

Verbascum thapsus



Source: Richard W. Stoffle 2002

Common Name

Common mullein

Indian Name

None given

General Uses

Medicinal (Zedeño, Basaldú, Hamm and Eisenberg 2001; Rogers 1980; Johnson and Larson 1999)
Manufacture (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"A common biennial weed, especially in eastern South Dakota. This plant was introduced from Europe long ago and grows in disturbed and overgrazed areas. Europeans, and later Native Americans, discovered that inhaling smoke of dried leaves relieved bronchitis. The yellow flowers are used for dye (Rogers 1980:96)."

"American Indians smoked ground leaves and roots for relief of bronchitis (Johnson and Larson 1999:234)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Truax and Lyle 1954

Scientific Name

Vicia americana



Source: **Robert H. Mohlenbrock** @ USDA-NRCS PLANTS Database / USDA NRCS. 1992. *Western wetland flora: Field office guide to plant species*. Last accessed spring 2004

Common Name

American vetch

Indian Name

Tasúsu (buffalo testicles) (Rogers 1980:74)

General Uses

Food (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"Common in thickets and prairies across South Dakota. Young shoots and seeds are eaten boiled. *Tasúsu* perhaps means "buffalo testicles" and refers to the small beans of the plant (Rogers 1980:74)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Nicollet 1838
Truax and Lyle 1954

Scientific Name

Viola canadensis var. *rugulosa*



Source: William S. Justice @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Tall white violet

Indian Name

None given

General Uses

Food (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"About a dozen species (yellow, white, purple-flowered) occur in woods, prairies and lawns throughout South Dakota. Leaves and flowers can be eaten in salads; leaves can be cooked as greens or used as a soup thickener; dried leaves as tea (Rogers 1980:98)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Truax and Lyle 1954

Scientific Name

Vitis riparia



Source: www.npwrc.usgs.gov/resource/1998/mnplant/viri.htm

Common Name

Frost grape, winter grape

Indian Name

Hastaⁿhaⁿka, *Chaⁿ wīyape* (Teton) (Gilmore 1991:50)
Ćuŋwi' yapehe iyūwi (wood use with wind around vine, tangled vine),
Ćuŋwi'yapehe (the fruits) (Rogers 1980:100)

General Uses

Food (Zedeño, Basaldú, Hamm and Eisenberg 2001; Rogers 1980; Larson and Johnson 1999; BARA 2002)

Description of Uses

"A woody vine. Two species, present in woods across South Dakota. Young shoots can be eaten as a potherb. The fruits are edible; can be used for jelly, wine, etc. (Rogers 1980:100)."

"Various tribes used the fruit fresh or dried (Larson & Johnson 1999:574)."

**Tribal Rep
Comments**

They used to pick gallons of wild grapes but they're mostly gone now.

In Park

Truax and Lyle 1954

Scientific Name

Zanthoxylum americanum



Source: **Merel R. Black** @ Wisconsin State Herbarium.
Last accessed spring 2004

Common Name

Common prickly ash

Indian Name

None given

General Uses

Food (Rogers 1980)
Unspecified (BARA 2002)

Description of Uses

"A shrub in the woods in eastern South Dakota. Rutaceace is the family of *Citrus*. Crushed leaves are fragrant (lemony). Crushed fruits for a "lemonade" (they are very strong; if bitten raw, they will burn) (Rogers 1980:92)."

**Tribal Rep
Comments**

Used for unspecified purposes.

In Park

Truax and Lyle 1954

Scientific Name

Zigadenus elegans



Source: Margaret Williams @ USDA-NRCS PLANTS Database.
Last accessed spring 2004

Common Name

Death camas

Indian Name

Pśiŋ hublōka (male onion stem) (Rogers 1980:30)

General Uses

Unspecified (BARA 2002)

"The bulb of camas (*Camassia quamash*) was an important food for tribes who inhabited that area; however, even Indians who were familiar with deathcamas and its poisonous nature were sometimes accidentally poisoned when they mistook it for camas (Larson and Johnson 1999:264)."

**Tribal Rep
Comments**

Culturally important but extremely poisonous.

In Park

The following plant list is organized by relative importance as defined by Pipestone National Monument employees and/or Sioux tribal representatives. A ‘Y’ in the columns for native species, PIPE Top 25, PIPE plant signs, and requests for use means that the plant is native, one of a priority plant list provided by the park, has a identifying sign in the park, and/or has been requested for use. The number for Sioux participants indicates how many people identified and/or discussed the plant. The number for Total score indicates the relative amount of attention given the plant by park employees and/or Sioux participants; it is compiled from the four preceding columns. This table provides a quick reference to those plants of mutual interest to the park and the tribal representatives, as well as those plants of interest to one group or the other.

Table 1.1 Pipestone Priority Plant List Weighted by Cultural Factors (Appendix 5)							
Scientific Name	Common Name	Native species	Tribal Participants	PIPE Top 25	PIPE Plant Signs	Requests for Use	Total Score
<i>Prunus americana</i>	Wild plum	Y	9	Y	Y		11
<i>Psoralea esculenta</i> (syn. <i>Pedimelum esculentum</i>)	Breadroot scurf-pea, shaggy prairie-turnip	Y	8	Y	Y		10
<i>Prunus virginiana</i>	Chokecherry	Y	7	Y	Y	Y	10
<i>Asparagus officinalis</i>	Asparagus		7	Y	Y		9
<i>Artemisia ludoviciana</i>	White sage	Y	6	Y	Y	Y	9
<i>Rosa arkansana</i> var. <i>suffulta</i>	Dwarf prairie rose	Y	6	Y	Y		8
<i>Rhus glabra</i>	Smooth sumac	Y	6	Y	Y		8
<i>Allium textile</i>	Onion	Y	6	Y	Y		8
<i>Allium stellatum</i>	Onion	Y	6	Y	Y		8
<i>Allium canadense</i>	Onion	Y	6	Y	Y		8
<i>Amorpha canescens</i>	Leadplant	Y	5	Y	Y		7
<i>Salix nigra</i>	Black willow	Y	6				6
<i>Rhus radicans</i> (syn. <i>Toxicodendron rydbergii</i>)	Poison ivy		4	Y	Y		6
<i>Opuntia fragilis</i>	Little prickly pear	Y	5	Y			6
<i>Fraxinus pennsylvanica</i>	Ash	Y	6				6
<i>Asclepias syriaca</i>	Common milkweed	Y	4	Y	Y		6
<i>Andropogon gerardii</i>	Big bluestem	Y	4	Y	Y		6
<i>Achillea millefolium</i>	Common yarrow	Y	4	Y	Y		6
<i>Rubus occidentalis</i>	Black raspberry, black-cap	Y	5				5
<i>Rhamnus cathartica</i>	Common buckthorn		5				5
<i>Psoralea argophylla</i>	Silvery scurf-pea	Y	4		Y		5
<i>Cornus sericea</i> ssp. <i>sericea</i>	Red osier dogwood	Y	5				5
<i>Amelanchier humilis</i>	Low serviceberry	Y	4		Y		5
<i>Zizia aurea</i>	Common golden alexanders	Y	2	Y	Y		4
<i>Vitis riparia</i>	Frost grape, winter grape	Y	4				4
<i>Viola canadensis</i> var. <i>rugulosa</i>	Tall white violet	Y	2	Y	Y		4
<i>Quercus macrocarpa</i>	Bur oak	Y	4				4

Table 1.1 Pipestone Priority Plant List Weighted by Cultural Factors (Appendix 5)							
Scientific Name	Common Name	Native species	Tribal Participants	PIPE Top 25	PIPE Plant Signs	Requests for Use	Total Score
<i>Bromus inermis</i>	Smooth brome		4				4
<i>Tradescantia bracteata</i>	Sticky spiderwort	Y	3				3
<i>Symphoricarpos occidentalis</i>	Wolfberry, snowberry	Y	3				3
<i>Plantago patagonica</i>	Wooly plantain	Y	3				3
<i>Plantago major</i>	Common plantain	Y	3				3
<i>Monarda fistulosa</i> ssp. <i>fistulosa</i> var. <i>mollis</i>	Wild bergamot	Y		Y	Y	Y	3
<i>Hierochloe odorata</i>	Sweet grass	Y	2			Y	3
<i>Geum triflorum</i>	Prairie smoke	Y	3				3
<i>Erigeron strigosus</i>	Rough or Daisy fleabane	Y	1	Y	Y		3
<i>Equisetum arvense</i>	Common or field horsetails	Y	3				3
<i>Cystopteris fragilis</i>	Lowland bladder-fern	Y	1	Y	Y		3
<i>Coronilla varia</i>	Crown-vetch	Y	1	Y	Y		3
<i>Artemisia absinthium</i>	Common wormwood, sage, mugwort, absinthium		2	Y			3
<i>Vicia americana</i>	American vetch	Y	2				2
<i>Veronicastrum virginicum</i>	Culver's root	Y		Y	Y		2
<i>Verbena hastata</i>	Common vervain	Y		Y	Y		2
<i>Verbascum thapsus</i>	Common mullein		2				2
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle, stinging nettle	Y		Y	Y		2
<i>Typha latifolia</i>	Common cat-tail	Y	2				2
<i>Trifolium repens</i>	White clover		2				2
<i>Taraxacum officinale</i>	Common dandelion		2				2
<i>Stipa spartea</i>	Porcupine-grass	Y	2				2
<i>Silene stellata</i>	Starry campion	Y		Y	Y		2
<i>Shepherdia argentea</i>	Buffalo-berry	Y	2				2
<i>Salix alba</i>	White willow		2				2
<i>Sagittaria latifolia</i>	Common arrow-head	Y	2				2
<i>Rumex crispus</i>	Curly dock			Y	Y		2
<i>Ratibida pinnata</i>	Globular or Grayheaded coneflower	Y		Y	Y		2
<i>Ratibida columnifera</i>	Columnar coneflower	Y		Y	Y		2
<i>Pleurotus ulmarius</i> *	Tree or oyster mushroom		2				2
<i>Phlox pilosa</i>	Prairie phlox	Y		Y	Y		2
<i>Phalaris arundinacea</i>	Reed canary-grass	Y	1		Y		2
<i>Opuntia humifusa</i>	Prickly pear	Y	1		Y		2
<i>Nepeta cataria</i>	Catnip		2				2
<i>Mirabilis nyctaginea</i>	Heart-leaved umbrella-wort	Y		Y	Y		2
<i>Lomatium orientale</i>	White wild parsley	Y	2				2
<i>Heuchera richardsonii</i>	Prairie alum-root	Y	2				2

Table 1.1 Pipestone Priority Plant List Weighted by Cultural Factors (Appendix 5)							
Scientific Name	Common Name	Native species	Tribal Participants	PIPE Top 25	PIPE Plant Signs	Requests for Use	Total Score
<i>Grindelia squarrosa</i> var. <i>serrulata</i>	Curly-top gumweed	Y		Y	Y		2
<i>Fragaria virginiana</i>	Thick-leaved wild strawberry	Y	2				2
<i>Dianthus armeria</i>	Deptford pink			Y	Y		2
<i>Artemisia frigida</i>	Prairie-sagewort	Y	2				2
<i>Zigadenus elegans</i>	Death camas	Y	1				1
<i>Zanthoxylum americanum</i>	Common prickly ash	Y	1				1
<i>Ulmus pumila</i>	Elm		1				1
<i>Tragopogon dubius</i>	Fistulous goat's beard		1				1
<i>Toxicodendron rydbergii</i>	Western poison-ivy	Y			Y		1
<i>Solidago gigantea</i>	Smooth goldenrod	Y	1				1
<i>Smilacina stellata</i>	False Solomon's seal	Y	1				1
<i>Salix exigua</i>	Sandbar willow	Y	1				1
<i>Prunus pumila</i> var. <i>besseyi</i>	Sand-cherry	Y	1				1
<i>Potentilla arguta</i>	Tall potentilla	Y	1				1
<i>Populus deltoides</i>	Cottonwood	Y	1				1
<i>Polygonatum biflorum</i>	Solomon's seal	Y	1				1
<i>Poa pratensis</i>	Kentucky bluegrass		1				1
<i>Physalis heterophylla</i>	Clammy ground cherry	Y	1				1
<i>Phleum pratense</i>	Timothy		1				1
<i>Oxalis violacea</i>	Violet wood-sorrel	Y	1				1
<i>Lonicera tatarica</i>	Tartarian honeysuckle		1				1
<i>Lithospermum canescens</i>	Hoary puccoon	Y	1				1
<i>Lilium philadelphicum</i>	Wood-lily	Y	1				1
<i>Heracleum sphondylium</i>	Wild carrot/cow parsnip		1				1
<i>Heliopsis helianthoides</i>	Sunflower-everlasting	Y	1				1
<i>Echinocystis lobata</i>	Wild cucumber	Y	1				1
<i>Delphinium carolinianum</i> ssp. <i>virescens</i>	Prairie larkspur	Y	1				1
<i>Cuscuta pentagona</i>	Field dodder	Y	1				1
<i>Crataegus succulenta</i>	Fleshy hawthorn	Y	1				1
<i>Cirsium flodmanii</i>	Prairie thistle	Y	1				1
<i>Cirsium altissimum</i> spp.	Tall thistle	Y	1				1
<i>Cicuta maculata</i>	Common water-hemlock	Y	1				1
<i>Carex</i> spp.	Sedge	Y	1				1
<i>Artemisia campestris</i> ssp. <i>caudata</i>	Wormwood, sage, mugwort	Y		Y			1
<i>Artemisia biennis</i>	Biennial wormwood, sage, mugwort			Y			1
<i>Arctium minus</i>	Common burdock		1				1
<i>Amorpha fruticosa</i>	False indigo	Y	1				1
<i>Acer negundo</i>	Boxelder maple	Y	1				1

This table provides a quick reference to Sioux ethnobotanical uses. It includes information from the literature and from the Sioux participants of the 2002 study.

Table 1.2 Sioux Ethnobotany Table of Uses															
Scientific Name	Common Name	Food	Ceremony	Weaponry	Medicinal	Manufacture	Resource Acquisition	Household Implement	Bathing/Cleaning	Folklore	Cultivated	Play	Decoration	Unspecified	Other
<i>Abies balsamea</i>	Balsam Fir	✓			✓	✓									
<i>Acer negundo</i>	Boxelder maple	✓	✓										✓	✓	
<i>Achillea millefolium</i>	Common yarrow				✓										
<i>Agalinis tenuifolia</i>	Slenderleaf false foxglove				✓										
<i>Allium canadense</i> , <i>A. stellatum</i> , <i>A. textile</i>	Onion	✓													
<i>Amelanchier humilis</i>	Low serviceberry	✓			✓	✓									
<i>Amelanchier sanguinea</i>	New England serviceberry	✓			✓										
<i>Amorpha canescens</i>	Leadplant	✓	✓		✓		✓								
<i>Amorpha fruticosa</i>	False indigo					✓	✓								
<i>Andropogon gerardii</i>	Big bluestem			✓	✓	✓						✓			
<i>Apocynum cannabinum</i>	Hemp dogbane					✓									
<i>Arctium minus</i>	Common burdock													✓	
<i>Artemisia absinthium</i>	Common wormwood, sage, mugwort, absinthium	✓			✓	✓									✓
<i>Artemisia biennis</i>	Biennial wormwood, sage, mugwort													✓	
<i>Artemisia campestris</i> ssp. <i>caudata</i>	Green sagewort, wormwood, sage, mugwort				✓					✓				✓	✓
<i>Artemisia frigida</i>	Prairie sagewort		✓		✓	✓			✓						
<i>Artemisia ludoviciana</i> , <i>A. ludoviciana</i> ssp. <i>ludoviciana</i> (<i>A. gnaphalodes</i>)	White sage		✓		✓	✓									✓
<i>Asclepias ovalifolia</i>	Dwarf milkweed				✓										
<i>Asclepias speciosa</i>	Showy milkweed	✓			✓										

Table 1.2 Sioux Ethnobotany Table of Uses

Scientific Name	Common Name	Food	Ceremony	Weaponry	Medicinal	Manufacture	Resource Acquisition	Household Implement	Bathing/Cleaning	Folklore	Cultivated	Play	Decoration	Unspecified	Other
<i>Asclepias syriaca</i>	Common milkweed	✓			✓	✓									
<i>Asparagus officinalis</i>	Asparagus	✓													
<i>Aster ericoides</i>	Squarrose white wild aster				✓										
<i>Aster laevis</i>	Smooth wild aster				✓										
<i>Aster lanceolatus</i> ssp. <i>lanceolatus</i> var. <i>lanceolatus</i>	Eastern lined wild aster				✓										
<i>Aster novae-angliae</i>	New England wild aster				✓										
<i>Aster oblongifolius</i>	Aromatic wild aster				✓										
<i>Aster sericeus</i>	Western silvery wild aster				✓										
<i>Astragalus agrestis</i>	Field milk-vetch		✓		✓									✓	
<i>Carex</i> spp.	Sedge	✓													
<i>Celtis occidentalis</i>	Western hackberry	✓													
<i>Cicuta maculata</i>	Common water hemlock				✓									✓	
<i>Cirsium altissimum</i>	Tall thistle	✓			✓										✓
<i>Cirsium arvense</i>	Canada thistle													✓	
<i>Cirsium flodmanii</i>	Prairie thistle												✓		
<i>Cirsium undulatum</i>	Wavy-leaved thistle													✓	
<i>Cirsium vulgare</i>	Bull thistle													✓	
<i>Cirsium</i> spp.	Thistle	✓			✓	✓								✓	
<i>Cornus racemosa</i>	Northern swamp dogwood													✓	
<i>Cornus sericea</i> ssp. <i>sericea</i>	Redosier dogwood	✓	✓			✓									
<i>Coronilla varia</i>	Crown vetch				✓										
<i>Crataegus succulenta</i>	Fleshy hawthorn													✓	
<i>Cuscuta pentagona</i>	Field dodder													✓	
<i>Cystopteris fragilis</i>	Lowland bladder fern													✓	
<i>Delphinium carolinianum</i> ssp. <i>virescens</i>	Prairie larkspur				✓										

Table 1.2 Sioux Ethnobotany Table of Uses

Scientific Name	Common Name	Food	Ceremony	Weaponry	Medicinal	Manufacture	Resource Acquisition	Household Implement	Bathing/Cleaning	Folklore	Cultivated	Play	Decoration	Unspecified	Other
<i>Echinocystis lobata</i>	Wild cucumber				✓	✓									
<i>Equisetum arvense</i>	Field horsetail					✓									
<i>Equisetum laevigatum</i>	Smooth scouring rushes													✓	
<i>Erigeron strigosus</i>	Daisy fleabane or Rough fleabane				✓										
<i>Fragaria virginiana</i>	Thick-leaved wild strawberry	✓			✓										
<i>Fraxinus pennsylvanica</i>	Ash	✓	✓	✓		✓	✓								
<i>Galium aparine</i>	Cleavers				✓	✓									
<i>Galium triflorum</i>	Sweet-scented bedstraw				✓										
<i>Gentiana andrewsii</i>	Prairie closed or bottle-gentian													✓	
<i>Geum triflorum</i>	Prairie smoke				✓										
<i>Grindelia squarrosa</i> var. <i>serrulata</i>	Curlycup gumweed				✓										
<i>Heliopsis helianthoides</i>	Sunflower everlasting													✓	
<i>Heracleum sphondylium</i>	Carrot	✓			✓										
<i>Heuchera richardsonii</i>	Prairie alum-root				✓										
<i>Hierochloa odorata</i>	Sweet grass		✓												✓
<i>Juglans nigra</i>	Black walnut	✓				✓									
<i>Juniperus virginiana</i>	Eastern red cedar	✓	✓		✓	✓									
<i>Lemna minor</i>	Lesser duckweed													✓	
<i>Lilium philadelphicum</i>	Wood lily	✓			✓										
<i>Lithospermum canescens</i>	Hoary puccoon	✓			✓	✓									
<i>Lomatium orientale</i>	White wild parsley	✓													
<i>Lonicera tatarica</i>	Tartarian honeysuckle	✓													
<i>Mirabilis nyctaginea</i>	Heart-leaved umbrella-wort	✓			✓	✓									
<i>Monarda fistulosa</i> ssp. <i>fistulosa</i> var. <i>mollis</i>	Wild bergamot	✓	✓		✓										
<i>Nepeta cataria</i>	Catnip	✓			✓									✓	
<i>Opuntia fragilis</i>	Little prickly pear													✓	
<i>Opuntia humifusa</i>	Prickly pear	✓			✓	✓						✓			

Table 1.2 Sioux Ethnobotany Table of Uses

Scientific Name	Common Name	Food	Ceremony	Weaponry	Medicinal	Manufacture	Resource Acquisition	Household Implement	Bathing/Cleaning	Folklore	Cultivated	Play	Decoration	Unspecified	Other
<i>Oxalis violacea</i>	Violet woodsorrel	✓			✓									✓	
<i>Parthenocissus quinquefolia</i>	Virginia-creeper, woodbine	✓													
<i>Phlox pilosa</i>	Prairie phlox														
<i>Physalis heterophylla</i>	Clammy groundcherry	✓			✓						✓				
<i>Picea glauca</i>	White spruce													✓	
<i>Plantago major</i>	Common plantain	✓			✓										
<i>Plantago patagonica</i>	Woolly plantain				✓	✓								✓	
<i>Pleurotus ulmarius</i>	Tree or oyster mushroom	✓													
<i>Poa pratensis</i>	Kentucky bluegrass														
<i>Polygonatum biflorum</i>	Solomon's seal	✓			✓										
<i>Polygonum punctatum</i>	Dotted smartweed													✓	
<i>Populus deltoides</i>	Cottonwood	✓	✓		✓	✓						✓		✓	
<i>Potentilla arguta</i>	Tall potentilla	✓			✓										
<i>Potentilla norvegica</i>	Strawberry weed				✓										
<i>Potentilla pensylvanica</i>	Cinquefoil, five-fingers				✓										
<i>Potentilla pensylvanica</i> var. <i>atrovirens</i>	Pennsylvania cinquefoil				✓										
<i>Potentilla recta</i>	Sulphur five-fingers				✓										
<i>Prunus americana</i>	Wild plum	✓	✓			✓		✓				✓		✓	
<i>Prunus pumila</i> var. <i>besseyi</i>	Sand cherry	✓	✓												
<i>Prunus virginiana</i>	Chokecherry	✓	✓	✓	✓	✓	✓			✓					
<i>Psoralea argophylla</i>	Silverleaf scurfpea				✓	✓								✓	
<i>Psoralea esculenta</i> (syn. <i>Pedimelum esculentum</i>)	Breadroot scurfpea	✓	✓		✓					✓					
<i>Quercus macrocarpa</i>	Bur oak	✓			✓	✓						✓			
<i>Ratibida columnifera</i>	Columnar coneflower	✓			✓	✓									
<i>Ratibida pinnata</i>	Globular or Grayheaded coneflower	✓			✓	✓									
<i>Rhamnus cathartica</i>	Common buckthorn				✓									✓	
<i>Rhus glabra</i>	Smooth sumac	✓	✓		✓	✓									

Table 1.2 Sioux Ethnobotany Table of Uses

Scientific Name	Common Name	Food	Ceremony	Weaponry	Medicinal	Manufacture	Resource Acquisition	Household Implement	Bathing/Cleaning	Folklore	Cultivated	Play	Decoration	Unspecified	Other
<i>Rhus radicans</i> (syn. <i>Toxicodendron rydbergii</i>)	Poison ivy				✓										
<i>Ribes americanum</i>	Eastern black currant	✓													
<i>Ribes aureum</i> var. <i>villosum</i>	Gooseberry	✓		✓		✓	✓								
<i>Ribes missouriense</i>	Missouri gooseberry	✓													
<i>Rosa arkansana</i> var. <i>suffulta</i>	Dwarf prairie rose	✓	✓		✓										
<i>Rubus occidentalis</i>	Black raspberry, blackcap	✓													
<i>Rudbeckia hirta</i>	Black-eyed Susan					✓									
<i>Rumex crispus</i>	Curly dock				✓										
<i>Sagittaria latifolia</i>	Common arrow-root	✓			✓										
<i>Salix alba</i>	White willow				✓	✓		✓							
<i>Salix alba</i> var. <i>vitellina</i>	Golden willow					✓									
<i>Salix amygdaloides</i>	Peachleaf willow	✓	✓		✓										
<i>Salix eriocephala</i>	Diamond willow				✓	✓									
<i>Salix exigua</i>	Narrowleaf willow		✓			✓									
<i>Salix interior</i>	Sandbar willow		✓			✓									
<i>Salix nigra</i>	Black willow	✓			✓	✓		✓	✓					✓	
<i>Salix</i> spp.	Willows	✓	✓		✓	✓									
<i>Sambucus canadensis</i>	Common elder	✓										✓			
<i>Schizachyrium scoparium</i>	Little bluestem					✓									
<i>Shepherdia argentea</i>	Buffalo-berry	✓	✓		✓									✓	
<i>Silphium perfoliatum</i>	Cup-plant				✓										
<i>Smilacina stellata</i>	False Solomon's seal	✓			✓									✓	
<i>Solidago canadensis</i>	Giant goldenrod														
<i>Solidago canadensis</i> var. <i>scabra</i>	Common goldenrod	✓			✓									✓	
<i>Solidago gigantea</i>	Smooth goldenrod, Giant goldenrod	✓			✓										
<i>Solidago missouriensis</i> var. <i>fasciculata</i>	Missouri goldenrod													✓	

Table 1.2 Sioux Ethnobotany Table of Uses

Scientific Name	Common Name	Food	Ceremony	Weaponry	Medicinal	Manufacture	Resource Acquisition	Household Implement	Bathing/Cleaning	Folklore	Cultivated	Play	Decoration	Unspecified	Other
<i>Solidago nemoralis</i>	Gray goldenrod													✓	
<i>Solidago rigida</i>	Stiff goldenrod							✓						✓	
<i>Solidago rugosa ssp. aspera</i>	Wrinkle-leaved goldenrod													✓	
<i>Stipa spartea</i>	Porcupine grass						✓					✓			
<i>Symphoricarpos occidentalis</i>	Western snowberry, wolfberry	✓		✓	✓							✓		✓	
<i>Taraxacum officinale</i>	Common dandelion	✓			✓	✓				✓					
<i>Thalictrum dasycarpum</i>	Purple meadow-rue		✓		✓							✓		✓	
<i>Tradescantia bracteata</i>	Sticky spiderwort	✓				✓				✓					
<i>Tragopogon dubius</i>	Fistulous goat's beard	✓												✓	
<i>Trifolium repens</i>	White clover	✓													
<i>Typha latifolia</i>	Common cattail	✓			✓	✓			✓						
<i>Ulmus pumila</i>	Elm													✓	
<i>Urtica dioica ssp. gracilis</i>	Nettle, stinging nettle	✓	✓		✓	✓						✓			
<i>Verbascum thapsus</i>	Common mullein				✓	✓			✓					✓	
<i>Verbena hastata</i>	Common vervain, Blue vervain	✓			✓										
<i>Veronicastrum virginicum</i>	Culver's root				✓										
<i>Viburnum lentago</i>	Sheepberry, nannyberry	✓													
<i>Viburnum rafinesquianum var. affine</i>	Downy arrow-wood	✓													
<i>Vicia americana</i>	American vetch	✓	✓		✓									✓	
<i>Viola canadensis var. rugulosa</i>	Tall white violet	✓												✓	
<i>Viola sororia</i>	Violet													✓	
<i>Vitis riparia</i>	Frost grape, winter grape	✓													
<i>Zanthoxylum americanum</i>	Common pricklyash	✓													
<i>Zigadenus elegans</i>	Death camas				✓									✓	
<i>Zizania aquatica</i>	Wild rice	✓	✓												
<i>Zizia aurea</i>	Common golden alexander													✓	

SECTION TWO

THE LANDSCAPES OF PIPESTONE NATIONAL MONUMENT

An ethnobotany study can reveal human-nature relationships that create and support a cultural landscape. Panarchy is a new term for a concept in human-natural ecology that implies neither humans nor the ecosystems where they lived for generations can be understood without mutual reference (Gunderson and Holling 2002). Berkes and Folke (1998) assure us that social and ecological systems are linked and that these adaptive linkages provide resilience and sustainability for these systems.

The ethnobotany of Pipestone National Monument (Pipestone) is a critical component of the human and natural linked landscape that has been millenia in formation. While this study is focused on linkages between the Sioux people and the natural systems of the Pipestone area, the first volume of this study should be consulted to more fully understand just how many human groups have established similar culturally significant connections with this place (Zedeño and Basaldu 2004).

Pipestone still contains many of the cultural and natural elements that made it a significance place for American Indian people; however, its pre-contact character has certainly been modified. European contact with Native American tribes brought cultural and natural changes to their landscapes linkages. These changes accelerated in the 19th Century and led to many biophysical changes to this place and its linked people. The processes of change slowed with the establishment of Pipestone National Monument in 1937. Today, management opportunities raise the possibility of restoring certain traditional human-nature links as well as preserving those that remain unchanged.

This chapter begins around 1700 when the Sioux people began to take control of the Coteau des Prairies and the Pipestone quarry (Murray 1965). We begin with a biophysical description, and then we focus on three cultural landscapes that are distinguished by two stages of transformation. Reflecting the cultural emphasis of the field research for this report, we designate the three landscapes as Sioux Traditional (1700s to the early 1800s), Sioux Transitional (early 1800s to park establishment in 1937), and Contemporary Pipestone National Monument (since 1937). This analysis is based on the ethnographic data collected in the spring of 2002 which is contextualized by documents.

THE BIOPHYSICAL LANDSCAPE

Pipestone lies on an eastern edge of the Coteau des Prairies, or Highlands of the Grasslands. As a biological unit, it is known in whole and in part as the Prairie Coteau, Coteau moraines, Inner Coteau des Prairies, the middle Coteau, and the outer Coteau (Minnesota Department of Natural Resources 2003; U.S. Geological Survey 2003; U.S.G.S. Northern Prairie

Wildlife Research Center 2003a; U.S. Geological Survey 2003b). As a geological unit, the area is a conspicuous iron-shaped landform running southeast to northwest for approximately 200 miles (320 km) through Iowa, Minnesota, and South Dakota (Figure 2.1). It is a low plateau of thick glacial deposits covering a small ridge of Cretaceous shale that forms a significant drainage divide between the Big Sioux River to the southwest and the Des Moines and Minnesota Rivers to the northeast (U.S. Geological Survey 2003).

Pipestone Quarry lies within an eastern edge of the Coteau designated Rolling Till Prairie (Soil Survey Staff 1981). Elevations range from 980 to 1640 feet (300 to 500 meters) across level to rolling topography that is interspersed with many depressions and poorly-defined drainages. The soils are mostly deep, loamy, and silty with mixed mineralogy and a frigid temperature regime. Soils in the depressions are poorly drained. Substantial outcrops of red Upper Precambrian quartzite layered with the softer red pipestone, or catlinite, occur in a few areas including Pipestone County (Wright 1972).



Figure 2.1 Shaded relief of the Coteau des Prairies
(Courtesy USGS <http://tapestry.usgs.gov/>).

The natural vegetative character, little of which remains, is true prairie dominated by more than 800 species of grasses and forbs (U.S.D.A. Forest Service 2002), with woody species along waterways. Predominant native grasses include big bluestem (*Andropogon gerardii*), blue grama (*Bouteloua gracilis*), buffalograss (*Buchloe dactyloides*), blue joint grass (*Calamagrostis canadensis*), Canada wild rye (*Elymus canadensis*), green needlegrass (*Nassella viridula*, syn. *Stipa viridula*), Indian grass (*Sorghastrum nutans*), June grass (*Koeleria macrantha*), little bluestem (*Schizachyrium scoparium*), needle-and-thread (*Hesperostipa comata*), porcupine-grass (*Hesperostipa spartea*), prairie dropseed (*Sporobolus heterolepis*), sideoats grama (*Bouteloua curtipendula*), sweetgrass (*Hierochloa odorata*), switchgrass (*Panicum virgatum*), and western wheatgrass (*Agropyron smithii*) with prairie cordgrass (*Spartina pectinata*) found in the wet areas. Native herbaceous species include dotted gayfeather (*Liatris punctata*), fringed sagebrush (*Artemisia frigida*), leadplant (*Amorpha canescens*), Missouri goldenrod (*Solidago*

missouriensis), prairie smoke (*Geum triflorum*), purple prairie clover (*Petalostemum purpureum*), western yarrow (*Achillea millefolium*), white sage (*Artemisia ludoviciana*), and wild bergamot (*Monarda fistulosa*). This prairie character was maintained through cycles of fires and drought (Minnesota Department of Natural Resources 2003).

One of the earliest descriptions of the Pipestone landscape comes from George Catlin ([1841] 1965:164). His view from the quartzite ridge encompassed "...the thousand *treeless, bushless, weedless* hills of grass and vivid green which all around me vanish into an infinity of blue and azure..."

Joseph N. Nicollet provided a detailed description two years later (Appendix 2). He approached the quarry from the east. On July 5, 1838, he wrote of what he called 'the valley of the red rock.' (Bray and Bray 1976:82-84):

The part of the plateau of the Coteau des Prairies that we have crossed from the headwaters of the Cottonwood to the valley of the red stone shows us that the surface of the plateau is grooved by three coteaux of the first order, which follow almost the same direction dividing the plateau unequally from east to west. The intervals between these coteaux are grooved by a multitude of plateaus of the second and third order, lessening in height until they become no more than perfectly flat prairies, uniform and without apparent change of terrain. Here the divides between watersheds are hard to recognize without surveying, a condition that gives rise to the idea that the same lake provides water for streams which flow in opposite directions.

...The red rock valley [in Pipestone National Monument] has an elliptical shape, a little irregular at the ends. The major axis runs about NNW-SSE without checking a compass; it is 3 miles long and the minor axis is 1 mile. ...The western slope is very irregular; its whole length is lined with rocks. These rocks have steep faces and other irregularities which are very picturesque. The most remarkable are the one that is like a chimney [Leaping Rock] and the one where a lovely brook [Pipestone Creek] comes from the higher western plateau and tumbles in a little falls [Winnewissa Falls] which forms two or three pretty basins joined by the stream that after several detours leaves the valley to the southwest and joins the Big Sioux River 20 or 30 miles farther down [near Sioux Falls, South Dakota].

The unusual rock that forms this curious hill, not visible from the summit of the plateau, is the old red sandstone [quartzite], sought in the transitional rocks. The red tints, which vary from bed to bed, from block to block, and often even within one block, and the play of light across the escarpments and the jagged, nearly perpendicular flanks of the valley produce an effect of ravishing beauty. The impression is all the more vivid as our monotonous crossing of the prairies had not prepared us for this continuous bedrock, and thus the sight is as agreeable as it is unexpected. This admirable hill awaits the poet and painter, who should visit it when the last rays of the setting sun fall upon it.

Water and the harshness of climate are destructive to these masses whose aspect changes with time. It seems that the cement of the sedimentary rocks

dissolves easily where water penetrates, and they are easily dislodged, breaking up into large cubical pieces and then into smaller, all of which are shaped by the laws of crystallization. The whole slope of the hill breaks away from its base, which has been ruined by water, and crumbles in mass. The beds of the formation dip to the NE1/4N, and the direction of the crests of the beds where they rise above the level of the prairie from the bottom of the valley is NW1/4W. The floor of the valley is formed by the lower beds of the formation; the spring floods cover it almost entirely, and dislodge such large fragments that it is impossible to walk through them. The stream that drains the valley forms two or three basins at different levels according to the bed which determines its course. These basins become beds of red clay, which dries quickly in the air and which has a visible thickness of 1 ½ feet.

It is the stone from which the Indians make their pipes. It is of very variable quality and about 1½ feet thick. On this bed rests the whole formation of the red sandstone of the valley. Toward the top of the bed, the pipestone flakes easily into thin leaves. Toward the bottom, one finds the thickest, most compact, most homogeneous pieces, the most beautiful for quarrying.

But the most extraordinary thing here is that the prairie of this valley contains a group of granite blocks toward the southern end which are larger than any I have so far seen [the Three Maidens]. Two or three of them are 60 feet in circumference and 10 to 12 feet high. They lie right on the red crust which covers the red pipestone. These rocks, which appear to be rolled, in an isolated place where their strange characteristics contrast with everything around them, and the few small rolled stones of the same kind that appear in the valley are a very astonishing sight. ...It is on the red fragments which serve as paving stones for these rocks that the Sioux come to write their names as is their custom. They say, moreover, that three female spirits live in this mysterious place and that it is they who have engraved all of the characters that one sees on the red pavement and that one can hear them at work at night.

Almost thirty years later, White journeyed to Pipestone from the west. He wrote that from three miles distance, Pipestone was no more than a “narrow ledge of rocks in the broad shallow valley of a little prairie creek, lying entirely below the general prairie level” (White 1869:649) (Figure 2.2). On approach, however, the westward facing exposure of rock, which White (1869) estimated at a mile long (D-E), appeared much greater. He further described the ridge as having a maximum height of about twenty feet, with red quartzite and a few granite boulders lying about. He marked the high point of the ridge (A) as where Indian legend put “*Gitché Manito*, the mighty” when he smoked his pipe; it is at this point where Pipestone Creek flows over the ridge.

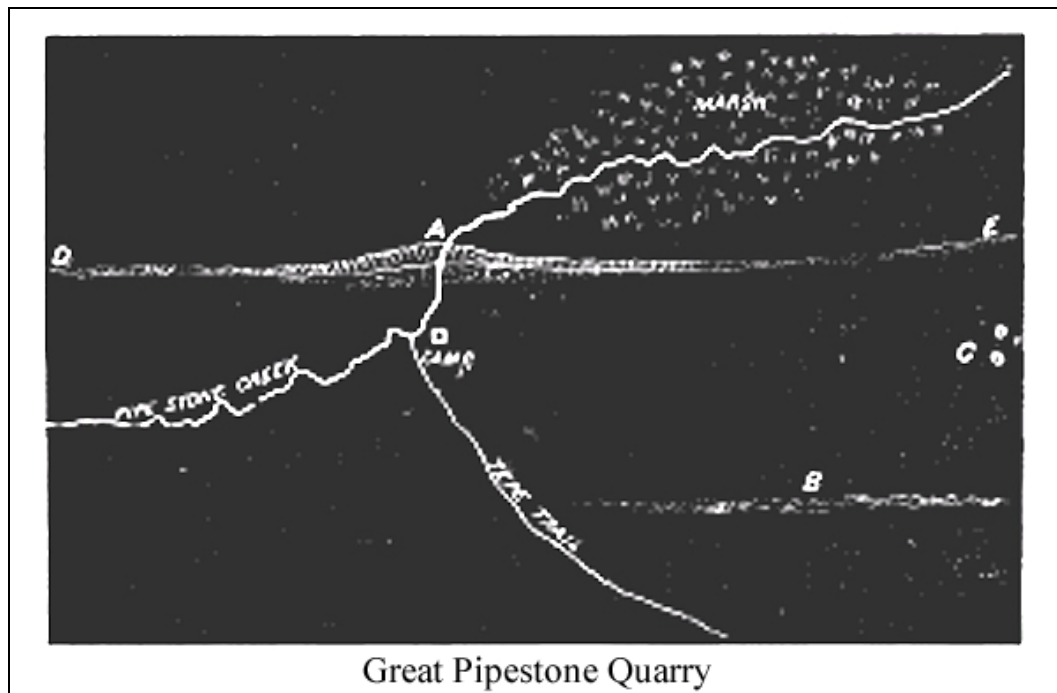


Figure 2.2 White's 1869 map of the Pipestone Quarry area.

White was shown what he called a “shallow ditch a quarter mile long” (B) where eight to twelve inch layers of pipestone could be seen. This quarry was central to the plain, that part of the sacred site lying below and extending from the ridgeline. White also noted the “medicine rocks” at the southern end of the plain (C), the two largest of which were twelve to fifteen feet in diameter and believed to cover the two Indian maidens of the *Gitche Manito* legend. The highly polished areas of exposed quartzite, he observed, were explained in the legend as effects of the fire through which the maidens passed beneath the Medicine Rocks. Much of these smoothed surfaces were covered with petroglyphs.

White (1869:652-3) also described some vegetative characteristics, writing that “a few stunted Common Willows (*Salix longifolia*?) grow along the banks, but no “Red Willow” (*Cornus stolonifera*), the bark of which, under the name of Kinnikinnick, is smoked by the Indians in place of tobacco, grows here. The Reed-grass (*Phragmites communis*) grows in all wet places here, as well as throughout the north-west, but it is seldom if ever used by the Indians for their pipestems. They commonly use a strong piece of young ash wood, from which they punch the pith to make the bore.”

Both Nicollet and White remarked on the lack of firewood and the need to hunt for it or bring it as part of their supplies. Both men wrote of keeping a vigilant eye for unfriendly Indians, however, Nicollet wrote of positive encounters with three Dakota families who, upon his invitation, positioned their camp closer to his for their mutual protection.

Changes to the biophysical landscape began with commercial quarrying and settlement, which led to the suppression of fire, the displacement of wildlife with livestock, and the introduction of non-native plant species. As more traders and settlers came to the area, more

pipestone quarries developed, as did larger pits from which bedrock quartzite was quarried for buildings.

One of the greatest changes to the landscape came in the early 1900s when appropriations were secured for blasting a channel through the quartzite ledge where the falls flowed. The intent was to provide an additional 18 acres of arable land for the self-supporting Indian school. Eventually, landowners upstream took advantage of the changed gradient and altered the shape and grade of most of Pipestone Creek for agricultural purposes (Murray 1965).

Today, the biophysical landscape is vastly different. Many of the tallgrass species have been replaced with such exotics as smooth brome (*Bromus inermis*) and Reed canarygrass (*Phalaris arundinacea*). The quartzite ridge, so distinct in the 1800s, is hidden by trees once controlled by prairie fires. The upper marsh area is dry and the winding upper reaches of Pipestone Creek are now channelized in north-south and east-west directions. The numerous smaller falls that once flanked Winnewissa Falls along the ridge, now flow only as sporadic runoff. The Three Maidens no longer sit on panels of petroglyphs, and now serve as props in the annual Hiawatha Pageant.

THE CULTURAL LANDSCAPES

The biophysical landscape of Pipestone provides the setting for multiple cultural landscapes, most of which existed before the 1700s. In this section, however, we are concerned with the post-1700 landscapes, which we call the Sioux Traditional (1700s to early 1800s), Sioux Transitional (early 1800s to park establishment in 1937), and Contemporary Pipestone National Monument (since 1937). The Sioux traditional landscape includes historic accounts by George Catlin, Joseph Nicollet, and C.A. White, among others. The Sioux transitional landscape focuses on the many Euro-American impacts of the later 19th Century. The contemporary landscape is the product of the federal management of Pipestone National Monument. Ethnographic data further informs the three landscape discussions. A synopsis of this section can be found in the Pipestone Landscape Chronology (Appendix 3).

The Sioux Traditional Cultural Landscape (1700s to the early 1800s)

The early cultural landscape of the Pipestone Quarries was the product of several tribes who made use of the area, and specifically the pipestone, since A.D. 1400-1450. These included the Poncas, Omahas, Iowas, Otoes, Sacs, Foxes, and Sioux, although the latter were in control of the Coteau des Prairies by the early 1700s (see Cultural Affiliation, Volume I). Sioux interests in the quarries and surrounding region are attested to through migration stories and documented annual pilgrimages to the site to obtain pipestone. They also went there to perform rituals, hold ceremonies, gather plants, and hunt wildlife. Some camp and village sites occurred periodically in the region, as did breastworks or enclosures presumed to be defensive structures (Figure 2.3).

While activities may have occurred elsewhere, it seems that the healing and ritual activities involved the water, the waterfalls, and the view of the treeless prairie from the quartzite ridge. Overall, most activities involved one or more of four primary features in the traditional

EARTHWORKS IN PIPESTONE AND ROCK COUNTIES

Enclosure 2 miles E.N.E. of Pipestone Falls, N. $\frac{1}{2}$, N.W. $\frac{1}{4}$, sec. 5, T.106-45. This is on land sloping slightly toward the east and cultivated. Average width of the embankment is 18 ft., its height 1 ft. It is about 50 ft. above the Pipestone creek. Surveyed August 12, 1889.

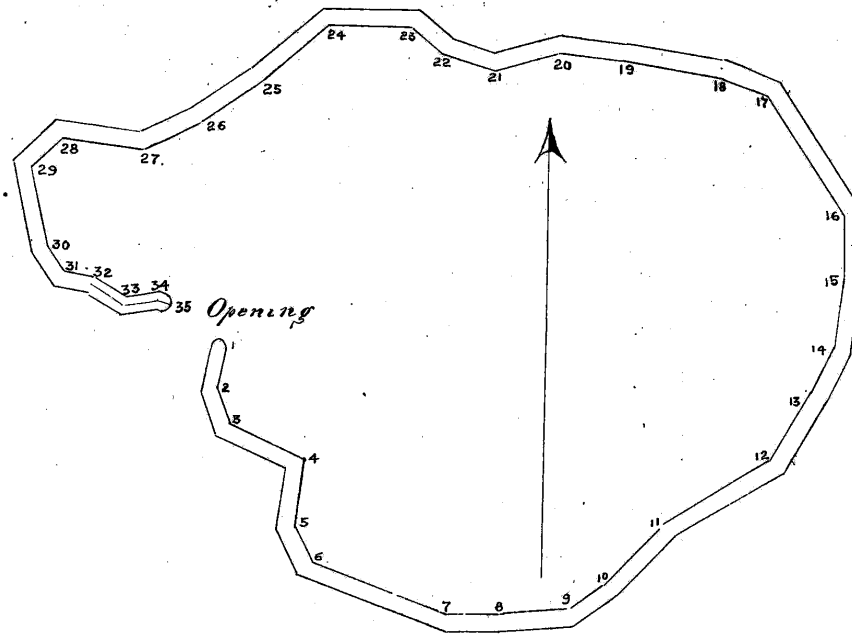


Figure 2.3 Defensive enclosure found NE of Winnewissa Falls (Winchell in Minnesota Historical Society 1911).

cultural landscape: the waterfalls, the Pipestone quarries, the Three Maidens, and Leaping Rock (Figure 2.4).

The sacred nature of the Pipestone site began with medicine plants and rites-of-passage rituals. Then, according to Sioux legend, White Buffalo Women brought the pipe to the Sioux and the practice of quarrying pipestone began. The prior Indian meanings and uses of the place continued, although, these became secondary to quarrying the pipestone.

For the many thousands of years during which Indian people are believed to have used this site, it was primarily a male site where medicine men sought plants for healing, where men performed rites-of-passage, and pursued vision quests. One such rite involved a four-day submergence in the Pipestone Creek after which boys were men who could be counted on to have the stamina necessary for hunting and fighting. A consultant during the 2002 fieldwork explained:

You'd stay in the water four days, swimming and fasting. The fasting was before there [were] pipes; we always [did] that, that's how you became a man. They'd put you out here and tie you for four days so, ...yeah, in olden days they did that so after the young guys did that, then they could trust 'em, they could send them out to do stuff. They'd be able to, if they were around the enemy, they could sit

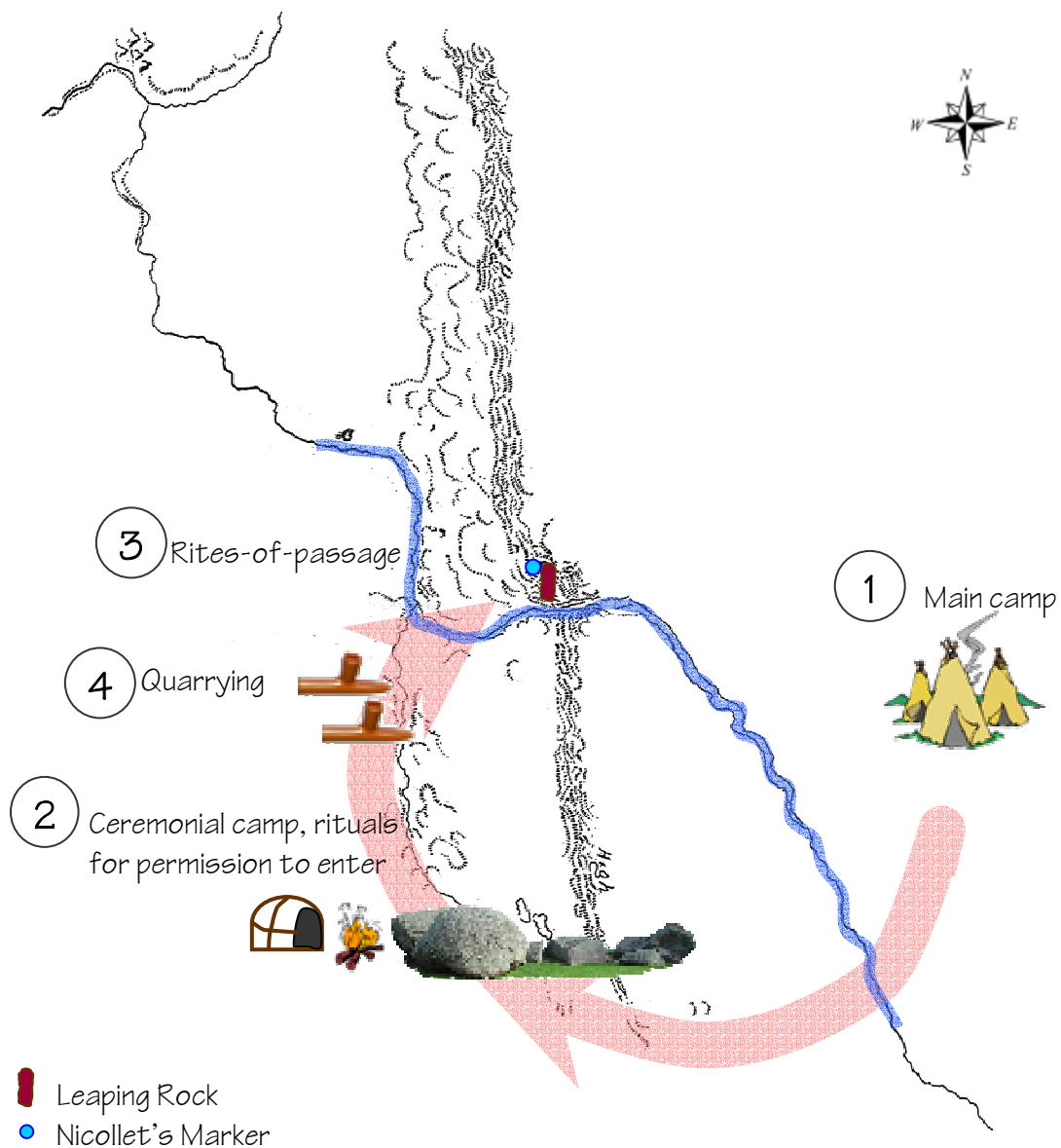


Figure 2.4 The Sioux Traditional Cultural Landscape (1700s to the early 1800s)

there for four days, and then attack 'em and have enough energy to kill 'em. That's how you got you're adult name.

The creek was a place for ablutions as well (Catlin [1841] 1965). Most likely these were performed above the waterfalls since the ritual cleansings had to occur before entering the lower plains or quarry areas. The waterfalls also may have been an area for curing.

Women may have visited the Pipestone area to gather food plants but as a place of medicine plants, Pipestone was where the spirits would teach certain men about the plants there and how these could be used. According to a 2002 tribal representative:

The guy who talked to the spirits, he'll tell you or the spirits will tell you what is proper. A long time ago, they gave [a] name to people who talk Indian and white, the spirits too. They can interpret what the spirits say to them.

This traditional Pipestone cultural landscape reflected systematic ceremonial uses by Indian people that were associated with quarrying pipestone. Upon arriving at the site, they would set up camp away from the quarries. Once greeted by thunder and lightning storms, the men would make ceremonial camps near the Three Maidens and begin to prepare themselves by cleansing in the creek, and giving prayers and tobacco offerings at the Three Maidens, the gateway into the sacred areas of Pipestone. If thunder and lightning greeted them, the place had heard their prayers and given them permission to enter the site. If thunder and lightning did not occur, the men may have returned to the ceremonial camp for more preparation or to the main camp to prepare for the return home.

Having entered the quarry sites, many of which paralleled the quartzite ridge for most of a mile, the men who were not quarrying might continue with sweats and prayers until they were needed in the quarries. Upon entering a quarry, each man would make a tobacco offering to indicate their purity and to protect them while they worked. When they were done, they took the offerings with them so that they took all signs of themselves to show respect for the spirits of the sacred area.

The early quarrying process involved implements made from roughly shaped fragments of quartzite rock. The pieces of pipestone obtained with these tools were later formed into pipes, ceremonial objects, and ornaments, which were used, distributed, or traded throughout much of the United States (Holmes 1919).

The earliest Euro-American accounts of the people of this region came in the 1700s as French missionaries, traders, cartographers, and explorers visited the area. American explorers followed them in the 1800s beginning with Lewis and Clark who wrote in 1804, that when Indian people were at the quarries or on the waters of Red Pipestone River, all (Indian) nations were at peace with each other. These inter-tribal wars were problematic for Euro-Americans, particularly the fur traders, and an attempt was made in 1825 with the Treaty of Prairie du Chien to reduce the fighting by establishing boundaries between the Sacs and Foxes, the Chippewas, and the Sioux. The line established by this treaty between the Sioux, and the Sacs and Foxes further strengthened the Sioux claim to the quarries. The 1830 version of the 1825 treaty marked the beginning of federal interest in control of the quarries. It was the last treaty that both involved Pipestone and the Yanktons, the Sacs and Foxes, the Omahas, Otoes, Missouriias, Mdeakanton, Wapekute, and Sisseton. After this time only Sioux tribes were consulted in terms of the pipestone quarries.

Expeditions to the area increased in the 1830s; early details of the site and its uses were documented by George Catlin in 1836 and Joseph Nicollet in 1838. Catlin's description

emphasized the cultural importance of Pipestone when he wrote that “This place is great (not in history, for there is none of it, but) in traditions, and stories, of which this Western world is full and rich. Here (according to their traditions), happened the mysterious birth of the red pipe, which has blown its fumes of peace and war to the remotest corners of the Continent; which has visited every warrior, and passed through its reddened stem the irrevocable oath of war and desolation. And here also, the peace-breathing calumet was born, and fringed with the eagle’s quills, which has shed its thrilling fumes over the land, and soothed the fury of the relentless savage (Catlin [1841] 1965:163).”

In spite of his declaration of Pipestone having no “history,” Catlin noted many landscape features of cultural origins including graves, mounds, and ancient fortifications within sight of the waterfall. He also referred to the site as the Siouxs’ “greatest medicine (mystery) place,” which included the “...pyramid or *leaping rock*, and its legends.” In his description, he explained that the pipestone was a medicine with no price, and that it would be sacrilegious for white men to take pipestone material as it would be tantamount to putting “...a hole in their flesh, and the blood could never be made to stop running (Catlin [1841] 1965:166).”

Catlin’s ([1841] 1965:202-203) observations included the Three Maidens and activities associated with it.

At the base of the wall, and within a few rods [a rod being 16.5 feet] of it, and on the very ground where the Indians dig for the red stone, rests a group of five stupendous boulders of gneiss, leaning against each other; the smallest of which is twelve or fifteen feet, and the largest twenty-five feet in diameter, altogether weighing, unquestionably, several hundred tons. ...The surface of these stones is covered with a grey moss, which gives them an extremely ancient and venerable appearance, and their sides and angles are rounded by attrition, to the shape and character of most other erratic stones, which are found throughout the country. It is under these blocks that the two holes, or ovens are seen, in which, according to the Indian superstition, the two old women, the guardian spirits of the place, reside...the poor Indian, whose superstitious veneration of them is such, that not a spear of grass is broken or bent by his feet, within three or four rods of them, where he stops, in humble supplication, by throwing plugs of tobacco to them, solicits permission to dig and carry away the red stone for his pipes.

He further documented other rituals that occurred within the site, confirming a systematic process of ablutions in Pipestone Creek, followed by prayers and tobacco offerings at the Three Maidens to obtain permission from the guardian spirits of the place to quarry. Catlin had gone beyond physical landscape description and documented processes that make Pipestone a Dakota cultural landscape.

A singular ritual occurred at the Leaping Rock, also known as the Medicine Rock further emphasizing the medicinal character of Pipestone. While the ritual required much courage and, if completed successfully, brought with it much honor, it can be surmised that the individual also came away with medicine from the rock. This feature was part of the cliff face that had separated

from the main quartzite ridge (Figure 2.5). According to Catlin ([1841] 1965:170), it was approximately seven to eight feet from the ridge and about seven feet in diameter.

It stands like an immense column of thirty-five feet high, and highly polished on its top and sides. It requires a daring effort to leap on to its top from the main wall, and back again, and many a heart has sighed for the honour of the feat without daring to make the attempt. Some few have tried it with success, and left their arrows standing in its crevice, several of which are seen there at this time; others have leapt the chasm and fallen from the slippery surface on which they could not hold, and suffered instant death upon the craggy rocks below.

When Joseph Nicollet visited Pipestone in 1838, he too wrote of the place as one of peace, visited by all the tribes of the north and northwest to obtain stone for pipe making, but being in Sisseton Sioux territory. The different tribes made annual pilgrimages to the quarry, apparently at different times, when they were not preoccupied with wars. On Nicollet's second day at the quarries, a Wahpekute man told him that fires his party had observed for two days had been set by Sac and Fox tribes who had just left the quarries. The nations of the Missouri River, however, traditionally made their pilgrimages to the quarries in July and could be expected to arrive soon (Bray and Bray 1976). This timing suggests a pattern of use that allowed enemy tribes to use the quarries without conflict, and a possible explanation for the reputation of the quarries as a place of peace.

Nicollet attributed the discovery of the pipestone to the passage of buffalo that created a deep pathway during seasonal migrations. At the time of his visit, the pathway remained clearly visible for almost a mile. He could see that mining had occurred for many years and that the pipestone was exhausted at all the places where it could be obtained easily. By the time of his visit, quarriers had to remove up to four and a half feet of hard quartzite that covered the pipestone layers.

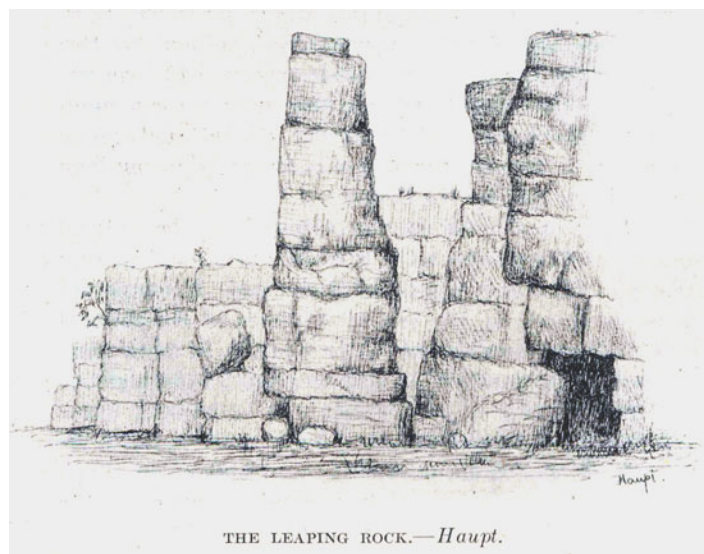


Figure 2.5 Sketch of Leaping Rock (Haupt in Minnesota Historical Society 1911).

Reiterating Catlin's understanding of the Sioux rituals surrounding quarrying, Nicollet (Bray and Bray 1976) described how they could not enter the area unless greeted by the great spirit of thunder who had opened the quarry. Thunder and lightning storms were signs of permission to access the site, and were followed by rituals at the Three Maidens to obtain permission to quarry the pipestone.

Nicollet also provided new details of the ceremonies and rituals associated with the quarries as well including Sioux names for the quarries *iyansha K'api*, "the place where one digs the red rock" and *Chanduhuppa Shak'api* "there where one digs the red pipes" (Bray and Bray 1976:75-77)⁵. He contextualized and clarified aspects of the ceremonial practices: "It is the custom in this case as always when the Indians are searching for something necessary to them – as for eating, smoking, waging and winning war – for them to prepare themselves by fasting and purification for three days." Following such fasting and purification, the men had to abstain from all contact with women, perform a ceremony of prayers, and present offerings of food and smoking materials to the quarry spirit. The offerings were made so that good stone of a clear red color and compact, uniform texture that would not flake could be obtained. If someone did not follow the rituals, he could be identified since he would only find thin sheets of rock that were inadequate for making pipes. Considered impure and liars, these individuals were expected to leave the quarries. They were replaced by someone else who would mine deeper or in a better place.

Although women traveled with the men to the quarry area, they would make separate camps some distance away and were not allowed to visit the quarries when the men were working them. Nicollet discovered that this prohibition did not apply when white men quarried when two Indian women went to observe his men as they quarried some stone. Beyond these restrictions, "...the Indians have no other superstitions about the red rock that do not also pertain to other circumstances of their lives when they look for a plant, an animal, or an enemy (Bray and Bray 1976:75)."

Nicollet attributed his knowledge of these traditions to elders who were willing to talk about them. He wrote that among the Sioux, who were "the most apt to take superstitions seriously and who profess a fanatical regard for tradition," there were elders who enjoyed sharing their knowledge and experience with strangers as well as with their young men. They did not deny "...the errors which their love of the marvelous caused them to commit in their own youth, but ...[freed] themselves from such errors as experience reveals the folly of them. They [became], in the end, the faithful depositors of healthy traditions that survive through the generations and that they transmit with religious devotion, without mystery and without restriction" (Bray and Bray 1976:76).

The Three Maidens were a mystery to Nicollet. He could not imagine how these large stones came to be on an open plain where so few stones of the same material could be found.

But the most extraordinary thing here is that the prairie of this valley contains a group of granite blocks toward the southern end which are larger than any I have

⁵ Also, Pipestone – *Ćaŋnoŋpa iŋ'yaŋ*; Pipestone Quarry, MN – *chon-Nu-moh-kah*, *Ćaŋnomoŋke* (Williamson [1902] 1992).

so far seen. Two or three of them are 60 feet in circumference and 10 to 12 feet high. They lie right on the red crust which covers the red pipestone. These rocks which appear to be rolled, in an isolated place where their strange characteristics contrast with everything around them, and the few small rolled stones of the same kind that appear in the valley are a very astonishing sight. One must ask where they come from. The situation is a mystery (Bray and Bray 1976:84).

The men traveling with Nicollet were familiar as well with the legends of Leaping Rock. During their visit, they observed the Fourth of July by making their own attempt to leave their mark on the rock.

The colors of the United States are unfurled on the summit of a large, sharp-cornered rock, 23 feet high, standing isolated in front of the hill, its four faces precipitous. It is called the 'chimney.' One cannot reach the summit of the rock by any of the flanks. It is necessary to jump from the top of the hill to the summit of the rock and land there firmly balanced. The top is a surface 2 feet square, and the space between it and the hill is 5 feet wide. Mr Frémont was assigned this perilous operation and executed it successfully (Bray and Bray 1976:79).

In the first half of the 19th century, significant changes were occurring in the traditional cultural landscape. The traditions of the site were much the same but quarrying had taken precedence over medicine plants and rites-of-passage, and the landscape had become the domain of the Dakota Sioux to the exclusion of other traditionally associated tribes.

The Sioux Transitional Cultural Landscape (early 1800s to 1937)

The accounts provided by Catlin and Nicollet document the changes in the traditional landscape that marked the beginnings of the transitional landscape. Catlin ([1841] 1965) made the first observations of cultural change relative to the sacred nature of the quarries. Although the quarries had been visited by many neighboring tribes for centuries who had carved petroglyphs on the quartzite rocks, by the 1830s, the Sioux had claimed exclusive rights to the quarry, and prevented access to it when they so desired.

Catlin documented several stories from different tribes about the restricted access. A Mandan who had made the leap successfully and placed his arrow in Leaping Rock, told Catlin that they no longer went to the quarry because the Dakotas had spilled blood on the rocks, and kept them and others away. A Puncah [Ponca] chief told a similar story: "Our enemies the Sioux, have raised the red flag of blood over the PipeStone Quarry, and our medicines there are trodden under foot by them. The Sioux are so many, and we cannot go to the mountain of the red pipe Catlin ([1841] 1965:170)." Following Catlin's return from the quarry, an old chief of the Sacs told him a similar story of spilled blood and lost access. "The Dah-co-tah's have spilled the blood of red men on that place, and the Great Spirit is offended. The white traders have told them to draw their bows upon us when we go there; and they have offered us many of the pipes for sale, but we do not want to smoke them, for we know that the Great Spirit is offended (Catlin [1841] 1965:171)." In 1835, Catlin wrote of another aspect of change in the sacredness of

Pipestone. Keokuk (Watchful Fox), a young Sac chief, told Catlin that he wanted to own the Pipestone quarry so he could sell it to the whites for a lot of money (Kelley 1997:80).

The transitional landscape reflects many changes that began in the early 1800s and accelerated through the 19th century. Significant changes began with the signing of treaties in 1851 with the Sisseton, Wahpeton, Mdewakanton, and Wahpakute Sioux. In these agreements, the four tribes gave up their interests in most of the lands of southwest Minnesota, including the Pipestone quarries. This created inter-tribal friction with the Yankton who claimed exclusive rights to the quarries. They in turn negotiated and signed the Treaty of Washington in 1858, securing pipestone quarrying rights for themselves. The treaty also called for a survey to establish a reservation of 640 acres around the quarries that the Yankton would retain, and have open and free access to visit and quarry as they desired.

In spite of the treaty and consequent survey in 1860 (Figure 2.6), traders and settlers encroached on the quarries and surrounding area throughout the 1860s and 1870s. James Boyd Hubbell quarried enough pipestone in 1865 to trade 5000 pipes to the Sioux for various items. The Northwest Fur Company manufactured almost 2000 pipes and traded them to the Indians of the Upper Missouri at the rate of one pipe for one buffalo robe. In 1870, Henry Davis built a homestead on the reservation and the Southwest Minnesota Railroad Company surveyed an area south of the reservation without regard for the 1860 survey. Other settlers took advantage of the new survey and filed homestead claims on the reservation. The General Land Office resurveyed the Pipestone reservation in 1872 (Figure 2.7) including parts of Sections 1 and 2 in T106N-R46W, small strips in sections 35 and 36 in T107N-R46W, and small portions outside the south boundary because the railroad's reservation lines did not follow public land survey directions.

Perceiving the quarries as a valuable part of the town's history and culture, Charles H. Bennett decided in 1873 to build a town on the southern boundary of the reservation. Settler encroachment of reservation lands, however, continued into the 1880s with a lull in 1875 when all but one of the existing filings was cancelled. As Pipestone City continued to grow, new encroachments by settlers increased tensions with the Yankton Sioux. This culminated with the trespass of the Rapids, Iowa Falls and Northwestern Railroad when it built a railroad across the eastern part of the reservation in 1884 without either Indian or federal approval. The federal government finally responded in 1887 and sent Army personnel to remove the squatters from the reservation. The Army also resurveyed and remarked the reservation boundaries yet again. The railroad trespass issue was settled in 1889 with a payment of \$1740 to the Yankton Sioux.

The 1890s saw efforts to establish an Indian school and a National Indian Pipestone Park. Although the Yankton Sioux approved of the school, they did not want it located on the reservation. In spite of this, the school was built in the northeast corner of the reservation and opened in 1893.

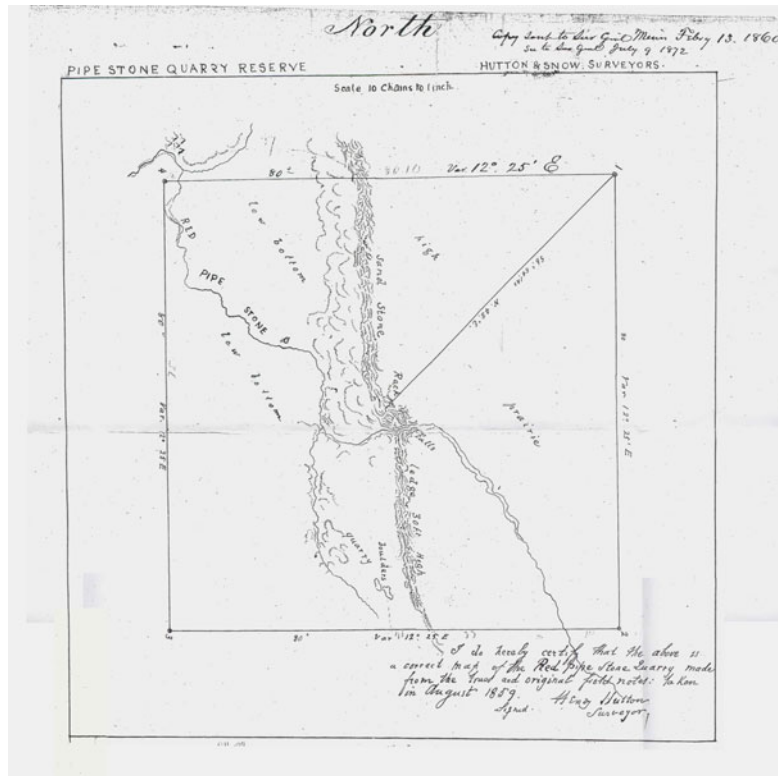


Figure 2.6 1860 Pipestone Reservation Survey.

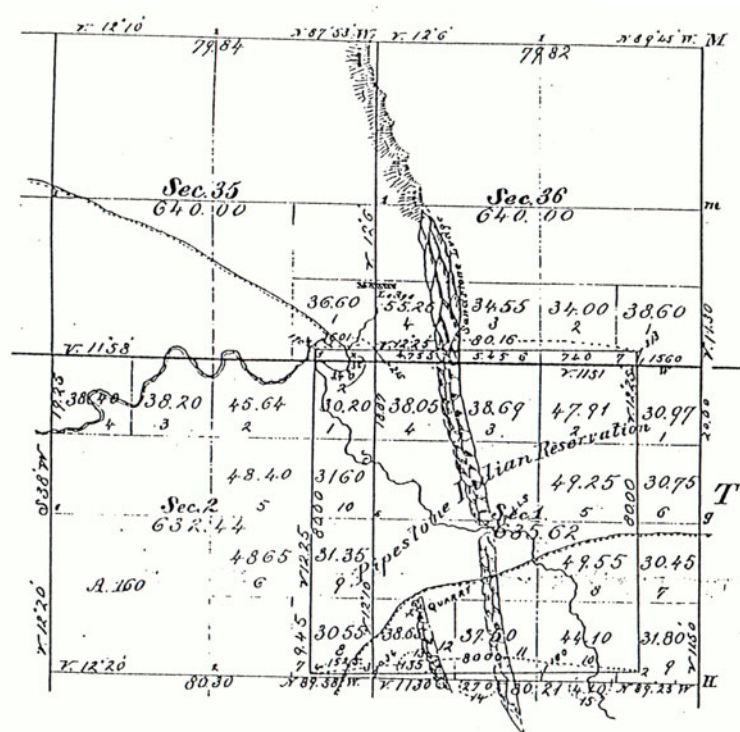


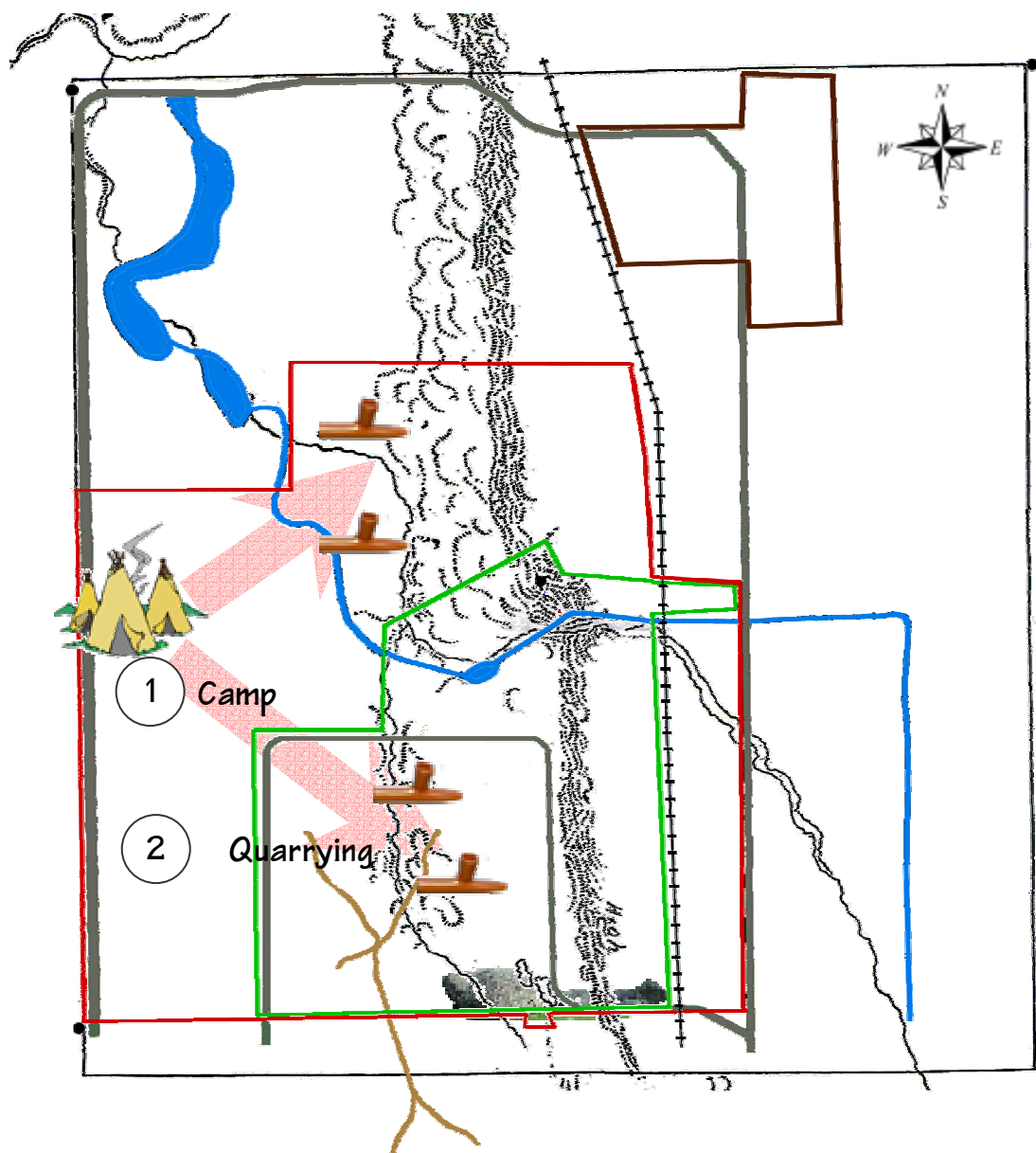
Figure 2.7 1872 Pipestone Reservation Survey.

Much of the high prairie (so labeled in Figure 2.6) was drained by blasting and channelization of Pipestone Creek. Appropriations were obtained by the Indian School to remove obstructions at the falls (1909), to construct a drain from the head of the falls upstream to the section line (1912), to blast out and deepen the creek (1916), and for more drainage following blasting (1917). The blasting and drainage were justified as measures needed to provide the self-supporting school with more farmland north of the creek (Figure 2.8).

Efforts to establish a city, state, or federal park continued throughout the early 1900s but failed primarily because the land title remained unsettled. In 1928, the issue was finally settled with the U.S. paying the Yankton for the land while reaffirming their right to quarry pipestone. The park movement gained momentum but took another nine years to succeed with the establishment of Pipestone National Monument.

The Sioux Transitional Cultural Landscape reflects biological and cultural changes (Figure 2.9). With the upper wetlands drained, the ecology of the area shifted from natural riparian habitat to farming. Burial mounds shown on Holmes' 1919 map (Figure 2.10) do not appear on later archaeological maps (Sigstad 1970). The reservation boundary was reduced primarily on the east and north. The Ceremonial Camp, located originally east-southeast of the Three Maidens, had to be relocated due to development of Pipestone City. The most likely relocation was to the western boundary, possibly outside the boundary. The series of waterfalls along the quartzite ridge was reduced to Winnewissa Falls following the extensive drainage of the high prairie. This also affected the wildlife and riparian plants, which have been reduced or replaced by introduced species.

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- 1860 Pipestone Indian Reservation Boundary
- Indian School
- 1919 Wagon Trails
- 1937 Pipestone National Monument Boundary
- Pipestone National Monument Boundary after 1950s
- Roads

Figure 2.9 The Transitional Pipestone Cultural Landscape (early 1800s to 1937).

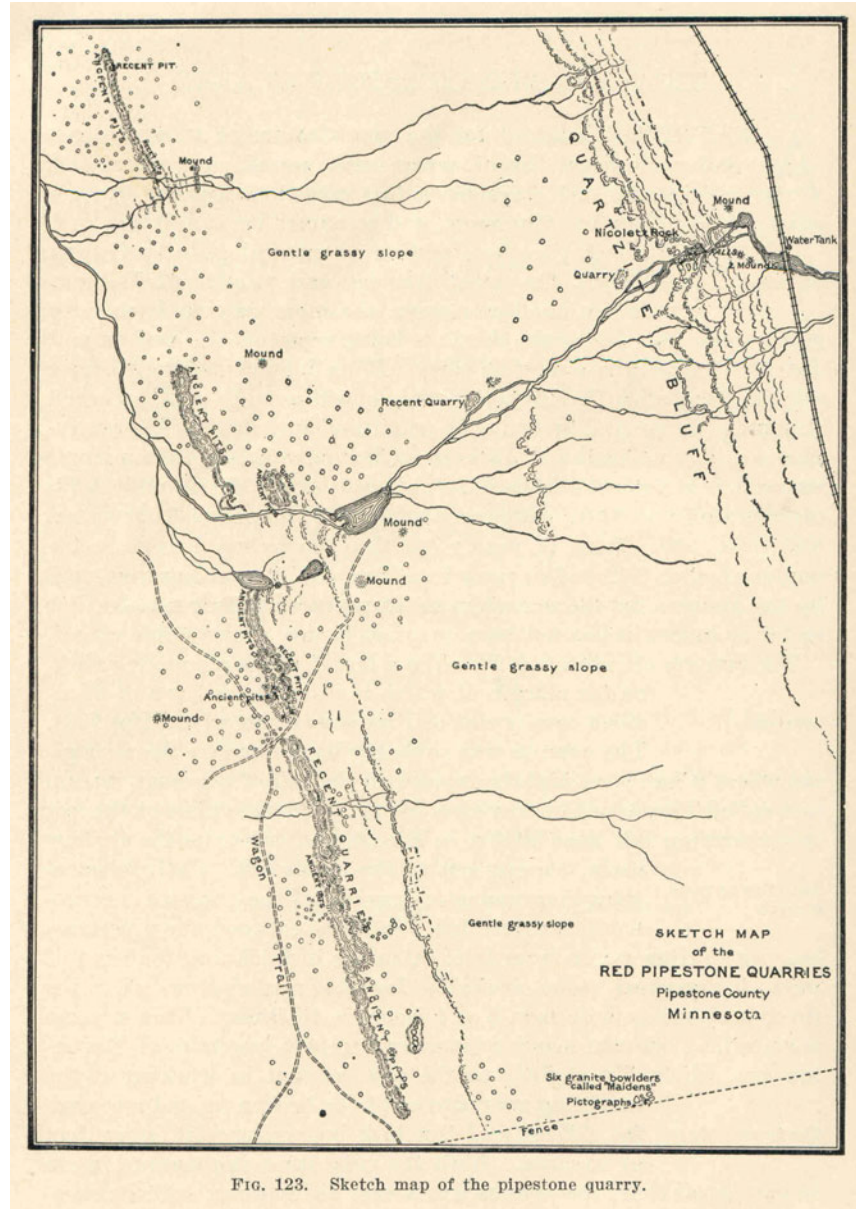


Figure 2.10 Holmes' 1919 Archaeological map of the Pipestone quarries.

Contemporary Pipestone Cultural Landscape (1937 to Today (2003))

Obvious changes in the landscape during this period included new physical developments, reduction in the biocomplexity of traditional plant and animal species, and elimination of traditional use areas. Following establishment of the Pipestone National Monument in 1937, Indian Emergency Conservation workers cleared brush, developed paths, and built a small lake west of the quartzite ridge. Wesley R. Hiller (1939) documented the loss of buffalo, wolves, whooping cranes, avocets, and curlews, and the encroachment of plant species

introduced by white residents (Kelley 1997). In 1949, archaeological studies indicated a need to expand the monument to protect more of the quarry line. The monument was able to acquire more land following the closing of the Indian school in 1953, expanding northward but leaving the Three Maidens exposed on the south boundary where the annual Hiawatha Pageant was initiated by the community of Pipestone the same year.

In the contemporary Pipestone landscape (Figure 2.11), quarrying is the only traditional activity that remains, with the exception of occasional, minimal plant gathering for uses elsewhere. Vision quests, rites-of-passage, and curing ceremonies are not known to continue. The Sun Dance, a new religious use for this area, now occurs annually.

Many of the biophysical changes are related to changes in the riparian system. Pipestone Creek has been heavily altered and compromised by channelization, damming, and contamination from agricultural and industrial land uses upstream. Flooding from the main channel is confined to Winnewissa Falls for the most part, although, occasionally, one or two other waterfalls may reappear for a short time. The wetlands above the falls prior to the railroad and Indian school developments are significantly smaller and more ephemeral today. Other changes include a dam and small lake developed by the park below the falls.

MEANING OF PLACE

This discussion of the meaning of Pipestone includes an overview followed by specific ethnographic resources, and activities. Pipestone material, Pipestone Creek and Winnewissa Falls, the Three Maidens, and the Petroglyphs have distinct meanings that contribute to the broader meaning of the place and the plants that grow there. Hughes and Stewart (1997) discuss these resources in great detail, however, their report focuses on the geophysical ethnographic resources to the exclusion of plants as ethnographic resources that play a significant role in the traditional and ceremonial processes of the Pipestone landscape.

The plants have meanings as well that contribute to the meaning of the cultural landscape, however, discussion of those meanings (in the previous section) has been restricted to food, medicinal, and ceremonial uses with few details. While resources are distinct and situated, activity sites are influenced by numerous landscape characteristics and include mobile processes that directly influence the integrity of the place's significance and sacredness. Within the park boundaries, the shifting of traditional activity sites may or may not be appropriate to the place. Activities may have been relocated or displaced consequently compromising the meaning, significance, and sacredness of the place. In addition to the identified resources, we include in this discussion two activities of particular concern: quarrying and the Sun Dance.

PIPESTONE, THE SITE

Pipestone National Monument is only part of the original 640 acre Pipestone Indian Reservation that was centered on the Nicollet marker and designated in the Treaty of 1858. As a traditional sacred place, it is highly revered by many tribes and particularly the Sioux people whose ancestors were involved in the 19th century treaties. While the quarrying of pipestone is a

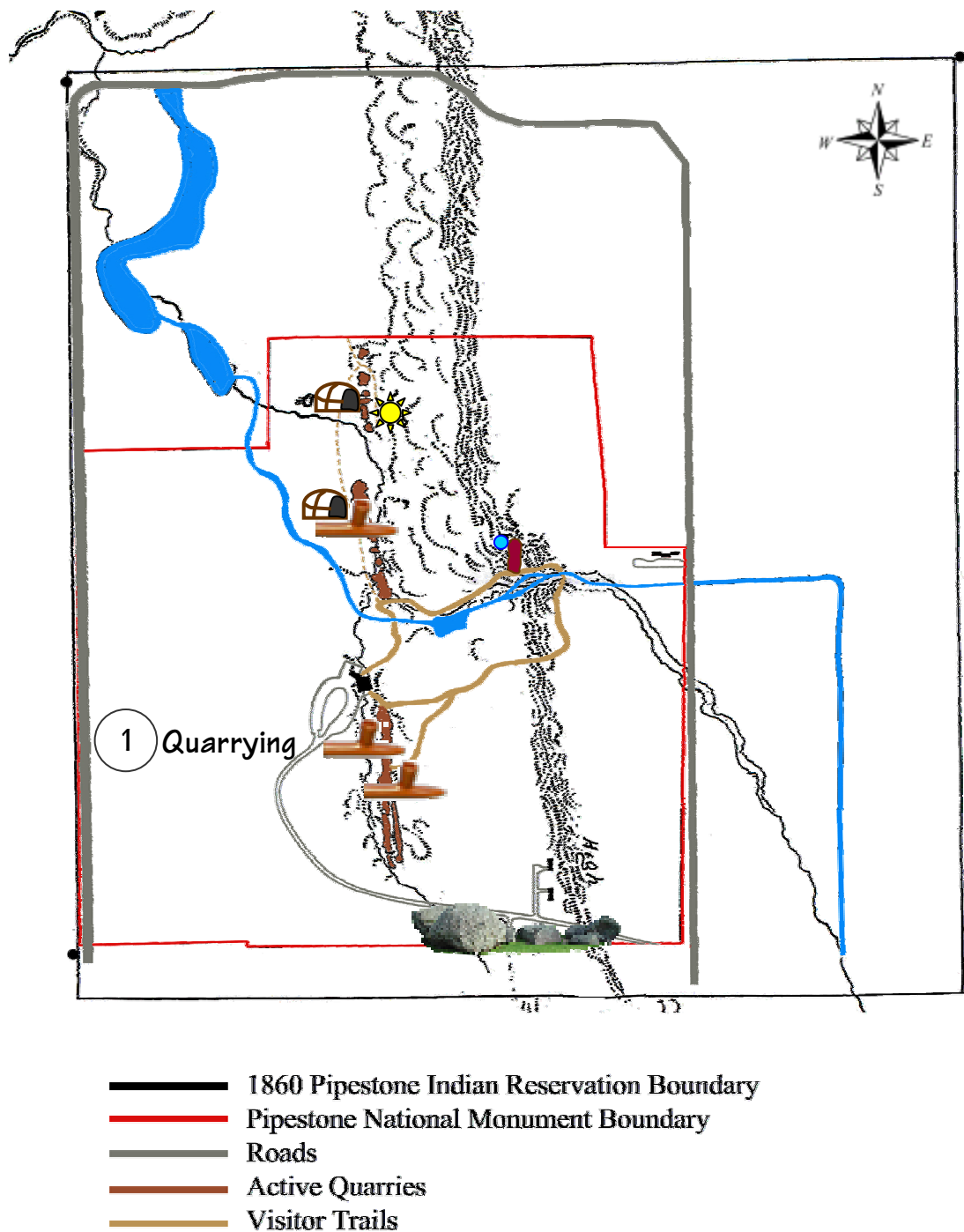


Figure 2.11 The Contemporary Pipestone Cultural Landscape.

legitimate, primary concern of the Sioux people and the NPS, the sacredness of this place seems to have originated with the power of the quartzite ridge, the waterfalls, the creek, and the plants. It became a place of healing and rites-of-passage, and may have been a place for vision quests.

The rocks have power; they are very powerful. This place was chosen because of the rocks and water, their power.

You'd stay in the water four days, swimming and fasting. The fasting was before there was pipes; we always done that, that's how you became a man. They'd put you out here and tie you for four days so, yeah, in olden days they did that; so after the young guys did that, then they could trust 'em, they could send them out to do stuff. They'd be able to, if they were around the enemy, they could sit there for four days, and then attack 'em and have enough energy to kill 'em. That's how you got you're adult name.

The medicine plants that grow in Pipestone are considered to be more powerful than the same species elsewhere. This belief is consistent with similar beliefs held by many tribes that the power of a sacred place is shared within the resources of that place including plants, rocks, and water. These resources, consequently, ensure healing and good communication with the spirit world. This is why Sioux people want to continue their tradition of gathering plant at Pipestone for traditional uses elsewhere.

The sacredness of the site came to include beliefs about events that introduced the different tribes to the pipestone material. The Dakota belief is that the Creator sent White Buffalo Woman to present it to two brothers. She told them how to make the sacred pipe and how to use it as part of the seven rules of associated behavior. The Dakota, consequently, believe that the Pipestone area was given to the Indian people by the Creator and that they are responsible for its care. The traditional significance of this place continues to have a place in contemporary Sioux culture. Despite the many changes that have occurred in the last 200 years, its importance continues to be conveyed through stories, legends, history, and memories shared among the Sioux people.

Things change. Whether trees were planted or not, the view would have changed from what it was in the 1800s. It's important to remember how it was though and what was done, the spirits of thousands of years of Dakotas coming here, including the school. All that history is now part of this place.

PIPESTONE, THE MATERIAL

The pipestone is central in the lives of the Sioux people. As one consultant explained, "It affects the spirit of a Dakota who knows anything about it." It represents their flesh and blood, and connects them to the earth and the Creator. Nicollet was told about the sacredness of the pipestone during his first expedition to the quarries.

They see everything on earth perish except stone. They believe, therefore, that the oldest object merits their veneration, having a spirit. They name stone Tukan, grandfather; in the style of their religion they invoke it to succeed in their enterprises; [by it] they make their oath[s]. ...The sacred stone is called iyanwitshake, the stone that tells the truth. They also call it tonkan. Tukanshi iyanwitshawaki – my grandfather, I tell the truth. These are the words they

pronounce as they touch the stone. The stick [stem] is placed up right; as they touch it they say iye witshawaki or tukan wichawaki (Bray and Bray 1976:270-271).

The red of the pipestone is connected with the quarrier who must shed his blood in the act of quarrying. It is a sacred experience of physical and spiritual sacrifice. The pipestone itself has the power to heal physically and spiritually as well.

It's like when we talk about rocks. The word means mother and foundation. You go to your mother when you're hurt. The same as the rock. The rock gives you powers. So that's what I mean when I say that the language holds the key.

Pipestone dust is good for healing cuts and scrapes. It stops the stinging and burning, makes it heal faster.

The contemporary uses of pipestone today are of great concern to the Dakota people. Because it is a sacred stone and has much power, it is ethically wrong to quarry it for commercial purposes, including to entertain tourists, and to sell it.

Now we have people depending on their livelihood, making and selling something that's sacred. We can't do that.

The idea that they're keeping alive the art of pipe making, well, maybe, maybe not. The only reason why other people don't make pipes is that there are no other people that can get a quarry. The quarries have been in the same families for generation from generation from generation, well, at least two generations anyway. Then nobody else was able to quarry. And the management of the quarry is a really tough issue.

PIPESTONE CREEK AND WINNEWISSA⁶ FALLS

The water in Pipestone Creek (Figure 4.1) is one of the primary resources defining the power and sacredness of the Pipestone quarries. The banks of the creek held many medicinal and ceremonial plants that drew their power from the water. It is presumed that the power of the creek had medicinal and ceremonial properties of its own that was shared in the plants.

The ceremonial powers of the creek were accessed in more direct ways as well, such as through the four-day ritual to obtain one's adult name. The creek also was where the men cleansed themselves as part of the ritual to enter the quarries, presumably above the falls as to do so below the falls was to prematurely enter the site.

⁶ From a Sioux verb *winawiza* (*winawawizi* or *winawiwizi-pi* - Riggs [1890] 1992), meaning 'to be jealous or envious.' The Great Spirit was angered by the Indian wars and called all the nations together at Pipestone and directed them to live in peace. As he did, water began to pour from the quartzite and created the falls (Davis 1934).



Figure 4.1 Pipestone Creek (R.W. Stoffle 2002).

As one might expect of a dynamic, mobile resource, the power of the creek was not limited to the quarry site. Lewis and Clark documented that the peace among all Indian nations at the quarries also existed on the waters of Red Pipestone River (Gass 1810). The power of the creek, and traditional use of it, however, is compromised today by pollution from upstream agricultural and industrial activities, and trash. Contaminants from farms and factories flow through the site affecting it, the plants, birds, fish, and wildlife. Litter of all sorts and sizes are trapped in pools or are carried downstream, consequently, diminishing the riparian aesthetics and posing various hazards to fish and wildlife.

The most damaging changes, however, occurred upstream when the railroad was constructed east of the creek above the falls, and when the channel immediately behind the falls was blasted out to drain the upper wetlands for farming (Figure 4.2). Most of the upper channel was later straightened to parallel fields for irrigation. The blasting of the channel may have had additional motivations. On the back of an old photo of Winnewissa Falls at flood stage (Figure 4.3), C. E. “Clifford” Peel wrote that, “The falls were blasted out because they constantly flooded the low lands N. E. of Pipestone and the Rock Island tracks also acted as a dam which didn’t help matters.”



Figure 4.2 Pipestone Creek (left) channelized above Winnewissa Falls (right) (R.W. Stoffle 2002).



[Have negative but original prints were^{84.9.2} returned to Theodore Fellows 2-1-84. Clifford E. Reel gave these to Fellows.]
 "The boys in picture are Dan Harrington & Wilbur Smith seated. This shows the falls in flood stage and looks like it may have been taken in early spring. The falls were blasted out because they constantly flooded the low lands N.E. of Pipestone and the Rock Island tracks also acted as a dam which didn't help matters. C.E. [Clifford] Reel"

Figure 4.3 Winnewissa Falls at flood stage, presumably before the upper creek channel was blasted.

THE THREE MAIDENS

The massive boulders making up the Three Maidens (Figure 4.4) is another highly sacred and powerful feature that has been diminished by non-Indian activities. In the early 1800s, American explorers knew them as medicine rocks before they knew them as the Three Maidens. According to different versions of the legend, two or three women live below the boulders as guardians of the quarries. The boulders are so sacred that traditionally the ground around them was untrampled for 50 to 65 feet (Catlin [1841] 1965). Ceremonial camps were set up near the Maidens so that the men could prepare themselves with prayers and offerings before entering the quarries to obtain pipestone.



Figure 4.4 The Three Maidens with mowed lawn and water-filled quarry behind (R.W. Stoffle 2002)

They say...that three female spirits live in this mysterious place and that it is they who have engraved all of the characters that one sees on the red pavement and that one can hear them at work at night (Bray and Bray 1976:84).

The Great Spirit at an ancient period, here called the Indian nations together, and standing on the precipice of the red pipe stone rock, broke from its wall a piece, and made a huge pipe by turning it in his hand, which he smoked over them, and to the North, the South, the East, and the West, and told them that this stone was red – that it was their flesh – that they must use it for their pipes of peace – that it belonged to them all, and that the war-club and scalping knife must not be raised on its ground. At the last whiff of his pipe his head went into a great cloud, and the whole surface of the rock for several miles was melted and glazed; two great ovens were opened beneath, and two women (guardian spirits of the place), entered them in a blaze of fire; and they are heard there yet (Tso-mec-cos-tee, and Tso-me-cos-te-won-dee), answering to the invocations of the high priests or medicine-men, who consult them when they are visitors to this sacred place (Catlin [1841] 1965:164).

It is under these blocks that the two holes, or ovens are seen, in which, according to the Indian superstition, the two old women, the guardian spirits of the place, reside...the poor Indian, whose superstitious veneration of them is such, that not a spear of grass is broken or bent by his feet, within three or four rods of them, where he stops, in humble supplication, by throwing plugs of tobacco to them, solicits permission to dig and carry away the red stone for his pipes (Catlin [1841] 1965:202-203).

Many ages ago the Great Spirit ...stood upon the cliff at the Red Pipestone. A stream issued from beneath his feet ...while near him ...was the Thunder's nest.. He broke a piece from the ledge, and formed it into a huge pipe and smoked it [to] signal to all the tribes of men to assemble ...and listen to the words of the Great Spirit. They came in vast numbers.. He blew the smoke over them all, and told them that the stone was human flesh, the flesh of their ancestors, who were created upon this spot; that the pipe he had made from it was the symbol of peace; that although they should be at war, they must ever after meet upon this ground in peace and as friends, for it belonged to them all; they must make their calumets from the soft stone, and smoke them in their councils, and whenever they wished to appease him or obtain his favor. ...he disappeared in the cloud which the last whiff of his pipe had caused, when a great fire rushed over the surface and melted the rocks, and at the same time two squaws passed through the fire to their places beneath the two medicine rocks, where they remain to this day as guardian spirits of the place, and must be propitiated by any one wishing to obtain the Pipestone before it can be taken away (White 1869:645-646).

The consultants explained the Three Maidens as a church. They view the annual Hiawatha Pageant, during which the boulders have been used as a backdrop and on occasion have been painted and had holes drilled in them, as an unspeakable sacrilegious act.

It isn't a church structure, a cathedral. But it's our church. I don't know how many thousands of people come through here. What more do they want from us?

How much do they want to take that they haven't taken already? This belongs to us. This place is sacred.

PETROGLYPHS

Early accounts of the quarries include mention of the many petroglyph slabs forming a base around the Three Maidens. Descriptions vary particularly with regard to who made the images on the quartzite, and what the images represent.

Many square yards of the glacier-smoothed surface at the Medicine Rocks are covered thickly with Indian hieroglyphics, made by pecking the hard surface with sharp-pointed stones. These are of various grotesque forms, intended to represent persons, animals of the region, turtles, and very many also in the form of the tracks of a large bird (White 1869:652).

It is on the red fragments which serve as paving stones for these rocks [the Three Maidens] that the Sioux come to write their names as is their custom (Bray and Bray 1976:84).

Many slabs of petroglyphs were removed from Pipestone in the late 1800s. Charles H. Bennett, founder of Pipestone City, removed many of the slabs to protect them from looters. In 1884, he exhibited them at the Cotton Centennial Expo in New Orleans. Some of the slabs ended up in museums and others were returned to Pipestone to reside in the Visitor Center.

What is this a monument to? Bad things happened here. Why are petroglyphs inside the building? Is this a monument to the petroglyphs themselves, or the fact that someone hauled them out?

QUARRYING

The tradition of quarrying, as noted by Nicollet in 1838, include entry to the valley only upon greeting of thunder, lightning, and storms, three days of fasting and purification, abstention from all contact with women, ceremony of prayers and offerings, and retiring if one cannot find adequate samples or seams for pipe making. In the case of the latter criterion, such an individual is considered impure and a liar with regard to his claim of chastity (Bray and Bray 1976).

The issue of quarrying pipestone for commercial products such as pipes, figures, and other objects was raised repeatedly during the 2002 fieldwork. Tensions continue to divide traditionalists and contemporary quarriers of the Sioux groups.

Now we have people depending on their livelihood, making and selling something that's sacred. We can't do that.

I think the first legislation said no unworked stone will be sold. It was to be used only for ceremonial pipes. I think that should have stayed. What caused the change?

The sacredness of pipestone and the quarries are underpinnings of Sioux spirituality, and their desire to protect it is very strong. Consultants criticized the displays of the pipes with the stems inserted in the pipe bowls, and likened the hanging of pipes on the walls to hanging crosses in liquor stores. Many of them explained that it is ethically wrong to sell the pipestone and to quarry it without understanding its significance:

Some spiritual leaders are so strong in spirituality, it's powerful when they bring the pipe out and talk about this place.

It's like when we talk about rocks. The word means mother and foundation. You go to your mother when you're hurt. The same as the rock. The rock gives you powers. So that's what I mean when I say that the language holds the key.

The original pipe brought by White Buffalo Woman is kept by Orville Looking Horse. It is a gift of a ghost. You can't go in there so he'll bring it out and show it to the people. He is the only one who handles it, although, others may hold the bundle it is wrapped in. It's not ours, it's the spirits' so no one uses it.

If you're going to work in a spot, you better darn well know what you're there for.

The idea that they're keeping alive the art of pipe making, well, maybe, maybe not. The only reason why other people don't make pipes is that there are no other people that can get a quarry. The quarries have been in the same families for generation from generation from generation, well, at least two generations anyway. Then nobody else was able to quarry. And the management of the quarry is a really tough issue.

THE SUN DANCE

The Sun Dance is a relatively new activity at Pipestone National Monument that has implications for plant management. Today, permanent structures and plant gathering alter the composition of the site.

A traditional practice known as the "grass laying down ceremony" was performed at the beginning of the Sun Dance. While some people believe that the "grass laying down ceremony" is a contemporary practice, it is not new according to the Sioux people who share an understanding of its origin. When the tallgrasses of the prairie were too high and thick for the elders to walk through, the young people would go ahead and lay the grass down with their feet to clear a trail for them.

This practice became a key procedure as part of the Sun Dance. Besides a show of respect for the elders, it was a way of asking the prairie animals to leave the area during the

dance. The grasses and other plants also were asked through prayer to accommodate the dancers and to forgive them for the harm that they may cause.

I remember when the pioneers were following the prairie routes up, that the grass was taller than the men, and the men would try to make their way through, and some of 'em died because they were suffocated with so many mosquitoes because they got into their cavities, their breathing, they packed their lungs and their noses and their ears. That's how they came up with grass dancing, the younger ones would stomp the grass down so the elderly could follow behind. People now, 'oh, that's a new thing' on the powwow circuit; no, it's not. It's an ancient tradition.

Today, this traditional practice that has been replaced with lawn mowers. Returning to practice might be desirable, however, if an abundance of trampled plant material remains after the Sun Dance, some management practice may still be necessary. While traditional burning might be a desirable alternative, there are now permanent structures on the site that would be difficult to protect. The timing for traditional burning is problematic as well since the Sun Dances occur outside preferred burning seasons.

SECTION THREE

MANAGEMENT COMMENTS AND RECOMMENDATIONS

Several topics pertinent to management were raised as part of the ethnobotanical fieldwork. In addition to general management issues, consultants discussed restoration of the tallgrass prairie including the fate of the trees, and burning practices⁷. This section is concerned with comments and recommendations about these issues in addition to the sharing of plant knowledge and the management of the pipestone. The recommendations were made by individuals and are not official statements by culturally affiliated tribal councils. The consultants offered their perspectives of possible management alternatives that may provide possible guidance for future discussions with tribes.

Consultants recognize that the alternative practices they suggest may complicate the monument's management plans and that the park is under no obligation to consider the suggested alternatives. Consultants feel that any management changes would be best implemented in small increments, especially those that involve restrictions. They suggested providing adequate explanations so that others would not resent the changes. They reiterated that management in general is not about maintaining resources but in effect, supervising people's interaction with resources because it is the environment that actually manages people.

It would be hard to manage because of the issues around the quarries but I think the plants are a good start.

How can we manage without managing the stone? If we can't manage the stone, we are going too far with the plants.

If people don't accept something, it won't work. You need to find a balance. If you restrict too much, people will rebel. When you talk about managing something, you're actually talking about managing the people.

That's actually a question for a psychologist because humans are affected. If you do things in such a fashion that in time people grow to resent it then it causes more harm, bad feelings. If you try to find a balance...if you totally say 'no, you can't go in there; it's restricted access' then people, not all people but some people will resent it. They'll start doing things they normally wouldn't. Or you can do this with the interpretive that follows, then people will get more curious than resentful, 'what is so special it's restricted?' The interpretive hopefully will explain that and people will have a little more respect. So when you're talking about managing some place, whether it's for restoration or whatever, you're

⁷ Consequent to our discussions with managers at Pipestone National Monument, a fire effects bibliography for tallgrass prairie burning is provided as Appendix 11.

actually talking about managing the influence man has on, in this case, it might be the impact historically but when that's accomplished, how do you keep it from happening, recurring? So you've got the balance to think about.

The plants are the easiest thing, selective burning, timing, sequence. Medicinal plants, their life in the ground is for a long time. They'll come back when it's time. Plant interaction by the Dakota people is needed but who will do it and why? I wouldn't mind if no one was here for a hundred years, then the place would heal itself.

When it gets tired of our baloney, it will get rid of us but the land will still be around.

Why [manage for] a catlinite landscape? That would stick this place in time when the park has a life of it's own. It doesn't matter what the park does with the plants because people are no longer here to use them.

GENERAL RESTORATION COMMENTS

Evidence of human use of tallgrass prairie plants dates as early as the initial middle Missouri tradition as indicated in Benn's (1974) analysis of botanical remains from the Mitchell site in South Dakota. It concerns the Initial Middle Missouri tradition, which also is strongly represented in the archaeology of the monument. Many of the plants he identified are representative of the tallgrass prairie and show a continuity of use for over one thousand years (Appendices 9 and 10). Shantz (1917) outlined the stages of succession in Colorado as weed stage, short-lived grass stage, perennial grass stage, early short grass stage, and short grass sod, estimating 20 to 50 years to complete this process.

These findings suggest that the persistence of the tallgrass prairie complex concurrent with Native American influences presents a model for restoration, that it could take two or more generations to accomplish, but that by blending traditional knowledge with contemporary western science, restoration of much of that complex may be possible within a decade or two.

The issue of restoration in Pipestone National Monument has both ecological and cultural components. The debate includes whether to restore the tallgrass prairie ecosystem by removing the present stand of trees and issuing a sustainable fire management plan; whether to restore Pipestone Creek to its original flow; and whether to recover lost reservation lands and add them to the monument. Many questions have been raised regarding the practicality of and appropriate means by which to accomplish these scenarios. The Sioux consultants expressed interest in restoring lost habitat for the native species of plants and animals that have been displaced. They were skeptical, however, about achieving full restoration and pointed out the problems in other parts of the country where restoration and burning practices were carried out incorrectly.

You must remember that nothing can be restored back to the way it [would] be; an impact creates a succession of changes. You have disrupted the natural

progression of things and can't return that. The best you can do is try to restore but it will never be complete. Here we have taken out decades of succession [but you might] restore things to [what I think is] the best possible condition by helping natives and destroying exotics.

We lack prairie animals to sustain prairie plants; total restoration is impractical, buffalo are impractical – one would die of loneliness and two would fight. Prairie chickens would be good. How far does the park want to go? If they restore species that can manage themselves, then the park can manage the perimeter to keep farm plants from jumping the fence.

You can never restore back to the way it [would have been]. Because you don't know it; after it's been impacted, already interrupted, the succession. All you can do is restore it to what [might] exist [under traditional conditions]; but it's still not total restoration because it's already been interrupted, you know, the natural progression of things was interrupted so the succession of the plants is also interrupted and you can never restore it back to its natural state. You've taken out decades of succession. What would have occurred if nothing had occurred, you know, by man? What would have occurred? You could suppose and speculate but you're never really gonna know so when you restore a prairie or this particular area, which is unique, you're only gonna be able to restore it a condition, the best possible condition; restore the plants you know so that they can survive, get rid of the invasive species. And that's the way it will be whether it's the natural succession...like the big fires out west. At one time they served a positive purpose and now you know since...it was a big thing about suppressing fires; those were economic decisions at the time but now mother nature decided it was time to burn whether it was introduced by man or not. The conditions were right for it to burn and that succession isn't going to be right but it's close to what the natural succession would have been. It's doing what it would have done except it's a little more destructive now. And so the whole succession is interrupted and there'll be a brand new succession. The trees will start over but then the grasses and the small plants will thrive, and so will the animals in time.

Tallgrass Prairie Comments - Trees

To a spiritual man, the trees are not as important as the stone and what it means. The present succession of trees in the park presents a significant obstacle to restoring a tallgrass prairie ecosystem, in light of the claim by a Dakota informant that it takes 16,000 acres, a tributary, five hundred buffalo, and skilled Indian burning to make it a truly viable tallgrass habitat. Consultants had different opinions about the removal of the trees, however, most felt that keeping the native species and removing the exotics would be a good idea. They felt that removing all of the trees was not a good idea because Pipestone is part of an ever-changing world in which nothing remains the same.

When it's natural, you just have to let it be.

Takuśkaŋśkaŋ means everlasting motion, that nothing ever stops so nothing can ever be the same; if these trees are here, they're here. Even the paths that are there, what do you do, you know? Life's never meant to be the same, everything changes, everything moves. That river will never flow like that again, like it did two seconds ago, you know, it's always...there might be one little pebble that got moved somewhere, you know. That's how I feel about these trees; I [wouldn't] take 'em away. Maybe they grew here to protect these rocks.

Would they have been a natural succession or not? Just north of here you know in the bluffs and coulees and stuff that have stands of oaks that are older than that but they would've had to migrate south some; but that's not too hard to envision.

Rather than target native and exotic species, some consultants distinguished between who was responsible for the trees' presence. Some recommended removing the trees planted by people but keeping the ones that volunteered from the planted trees. They added that the trees southeast of the visitor's center were more natural and, consequently, more acceptable. Others felt that the trees planted by the Superintendent of the Indian School might remain as well because *"they're part of history now; I like to remember both the bad parts and the good; it keeps perspective. It's not good to just remember the good."* Consultants agreed that it would be good to see more cottonwood trees in the park.

Tallgrass Prairie Comments - Burning Practices

Fire management recommendations were offered by the Sioux consultants regarding time scales and burning practices as well as information on specific plant species response to fire. Traditionally, burning specialists would obtain this knowledge through vision questing and ceremonies. Consultants felt that controlled burns are not as effective as natural fires but that it was necessary to survey after a burn to determine the effects on exotic plant species.

I think the easiest way to do it would be to assess after a test burn of an acre the first year, the first burn. And just burn it, try to assess the invasive species stage and burn it, then see what's emerging the following year. Granted some of the invasive species will still be there but then you'll start to see the prairie plants. So sometimes you have to establish even if it's two plants before the other ones are decided. 'cause you gotta create an environment that hasn't existed for quite a while; I'm not a botanist but I do know a little bit about relationships between various species of plants; one won't grow unless the other will be there.

First you have to let all the invasive species start to emerge or at least start to leaf before you burn because that is catching them, you know, the growing cycle, and burn 'em so they don't have time to flower or seed. So they have to be a certain height to burn 'em and since prairie plants generally respond to fire and they emerge after, most of the grasses and stuff, but you really have to assess the present situation.

What we need is about four good burns in ten years [to eliminate the invasives].

Even the plum respond to fire, some of them you know they're very sensitive to fire but the ones that are established would be set back but not killed and so now plums you'd do in the same manner. The young ones would probably die and the ones with thicker bark would survive. You're not eradicating plums, you're just naturally thinning them.

Consultants recalled that management used to burn about every two years. They would let the vegetation grow during that time, then burn the third spring when the smooth brome (*Bromus inermis*) was 4"-6" high. This was an effective cycle in keeping the smooth brome and plum trees under control, a goal the consultants would like to see pursued.

RECOMMENDATIONS

The Sioux consultants provided recommendations for the monument's natural and cultural resources. They would like to see the monument continue to manage for a tallgrass prairie ecosystem that includes the prairie plants and animals they care about, and that has room for the traditions of their people. They stressed the need for the monument to focus their efforts on increasing native species while decreasing non-natives, and on developing a co-management partnership with the United States Fish and Wildlife Service. The goal of the partnership would be to create an integrated land management plan that would allow each agency to manage their respective areas for increasing biodiversity of native species and creating a seamless ecosystem across jurisdictional boundaries.

I would manage what's left, try and get rid of what doesn't belong. If you don't manage, exotics will take over.

[I'd like to see a] management focus on reproduction instead of production.

As part of the monument's efforts to interpret and manage the cultural history of the monument, consultants would like to see a clear and accurate basis for interpretation. They would like to see an accurate depiction of the long history of positive and negative interactions between Native Americans, the American populace, and the federal government. The consultants also disliked the flags and flagging bundles left in the trees, the Sun Dance cottonwood tree left standing, and the incorrect construction of the sweat lodges.

They need to get back to the reason this place was established. [Bring] the history out but it's going to take a lot to get that done. In Catlin's description, there were no trees. I think about how it must have looked standing on the quarry line and looking down. Get that interpretation out. People need to understand why this place is sacred, why it was used.

[What should define the monument?] The abuse. The abuse of a culture, the abuse of the land itself; it's not a monument to me in a way that would make sense to me, other than a lot of bad things happened here when nothing but good was supposed to be happening here. So what's it a monument to? Well, I mean, if you're wondering why, why are the petroglyphs sitting inside the building when there used to be a whole pictograph; so what is that a monument to? The petroglyphs themselves or the fact that somebody took the time to chisel 'em up and haul 'em off. It's a matter of personal perspective.

I would first learn more. I would choose some scientists of all types to do studies of all types. I want to know why the interest was there for catlinite. For example, I read that a geologist says you can use catlinite for spark plugs. I want to know more. I'd study the cultural significance of the quarries. Find out why they are used, and how that plays into their worldview. Find out if they belong. If they want to Sun Dance there, and they are not new-agers, if they are authentic, then they are welcome. You have to control how many people are here. It's like when all the bikers come to Sturgis. They leave nothing but dirt.

Considering the plant resources, consultants felt that the plants were in a healthy state except for the traditional species that have been displaced and need to be restored. They pointed out that some of the old ceremonial use plants were not growing and that the former abundance of chokecherry, wildflowers, and sage has declined. They would like to see fewer trees, particularly the exotic species, and more of the tallgrass species, particularly traditional grasses, some of which were so tall they had to be pushed aside to walk through them.

To me, that [change in the grasses' composition] makes all the difference in the world.

Consultants recommended monitoring the affects of exotic species, air pollution, and water contamination on the condition of the plants. They are concerned about the contamination in Pipestone Creek from upstream enterprises and how that is affecting the plants, birds, wildlife, and fish, as well as the sacredness of Pipestone. Other plant management recommendations from the consultants included a management focus on improving the landscape in its entirety rather than improving individual plant species, and removing exotics.

What's important is to get rid of what doesn't belong; why do you need to know why, how it's used? There are dangerous plants out there, dangerous because I don't know how to use them.

Consultants would like Pipestone National Monument to be a place where Sioux people can bring their children to teach them traditional plant use, ceremonies, spirituality, and culture. The sacredness of the place, supported by the presence of a traditional tallgrass prairie, would make Pipestone an ideal location for their children to learn traditional knowledge from traditional elders, and through direct experiences where "the participants would have to go through rituals." This is particularly important when plant knowledge has to be taught directly when it no longer received through the traditional pathway of dreaming.

Several consultants pointed out that before teaching could occur, they needed to know all the traditional plants that remain in the monument. They felt that an inventory of traditional use plants would help them and NPS management identify the plants that need to be restored. They pointed out, though, that the size of the park is a limitation to proper teaching and learning. People have to interact with the land in order to learn about it and reconnect with it; a larger area would allow the necessary privacy and provide an environmental context for a holistic learning experience. Under these conditions, the tribes could teach their children about the landscape, their responsibilities to it, and their place within it in addition to the plants.

I think an inventory of ceremonial, medicinal plants [is important].

It's too small an area for any knowledge to occur.

Whether the monument is able to expand or not, consultants would like management to consider brief and periodic closings of the park to non-Indians in order to provide the privacy needed for ceremonial activities. This would be particularly important for activities around the Three Maidens, the waterfall, and Leaping Rock. The consultants expressed much concern with the Three Maidens and the annual Hiawatha Pageant held there. While the Three Maidens are just within the monument's boundary, there are no barriers, fences, or other protective measures. Pageant participants continue to use the Three Maidens as a background for the performance, and have in the past painted and drilled holes in the stones even though they are on NPS land. Without a spatial buffer, the monument's south boundary is insufficient for protecting the stones and their immediate area from what the consultants view as culturally inappropriate activities.

The consultants also consider it culturally inappropriate to mow around the Three Maidens, whose traditional grass border was untrampled for 50 to 65 feet by Indian visitors (Catlin [1841] 1965). They also felt it inappropriate that park visitors climb and play on the sacred stones. The tribal representatives viewed these activities as affecting a poor condition of the site and as impediments to the privacy needed for traditional ceremonial purposes.

The consultants are concerned about teaching medicinal plant use to non-Indians who lack botanical knowledge because they may use the plants incorrectly and cause themselves harm. Some of them suggest keeping the information on the plant signs limited to basic information such as names, whether native or introduced, and whether it poses a hazard, as in the case of poison ivy. They also suggested limiting any traditional use information to broad categories, such as food, medicine, clothing, and manufacture, but only with the approval of the tribes. In addition to the concern about mis-use, consultants explained that learning about traditional plants is much more complex than what can be placed on a sign.

I don't know how you can learn it out of a book. I could read all kinds of stuff but it wouldn't do me a lot of good 'cause there's gotta be a reason. The oral way of doing it's real hard and takes forever...it's a way of life that they always say, more than a religion because a religion is how you live. There's not, you don't just do it when you go to church; you don't just go to a sweat and be an Indian, you gotta walk like that...it's not easy.

At stake also, is the problem of popularizing the traditional pathways of Sioux plant use and ceremonies. Public use of these pathways displaces Sioux beliefs and customs from the traditional cultural context in which these were developed and forced them into an esoteric and more secular environment.

Knowing where ceremonial locations are isn't about the public; it isn't commercial. It's [not something to share with] the general public. I don't think [touring] here and [talking] about what it is [is] something that they need to know.

How could you restore rituals or vision questing? What would you do, put a sign 'please don't feed the fasters?'

If they're telling me that a long time ago, cleansing took place [at the Three Maidens], should it be appropriate to return it to that? If you're only doing it for commercialization, then that's wrong. If it goes back in the management plan, and Hiawatha and the bleachers are gone, I would support that. It isn't a church structure, a cathedral. But it's our church. I don't know how many thousands of people come through here. What more do they want from us? How much do they want to take that they haven't taken already? This belongs to us. This place is sacred.

What do the tribes want to do with this site? Their answers are limited by what they perceive as possible, that is, how far can and will management go to repair the traditional cultural landscape? Deloria (1999:335-336) advises that the tribes also consider how far they can and will go in this endeavor.

The questioned that must be addressed in the issue of sacred lands is the extent to which the tribal religions can be maintained if sacred lands are restored. Would restoration of the sacred Pipestone Quarry result in more people seeking to follow the traditional religious life, or would it result in continued use of the stone for tourism and commercial purposes? ...A major shift in focus is needed by traditional Sioux people to prepare to re-consecrate the quarry and return to the old ways of reverence.

Guidance for restoring a traditional Dakota landscape comes from discussions and observations during the 2002 fieldwork. The drastic change between the traditional and contemporary landscapes poses both realistic and unrealistic restoration opportunities.

In the traditional cultural landscape, different tribes came to quarry in late spring to early summer, mostly in June and July. Much preparation, however, was made before entering the quarry. Assuming thunder and lightning storms greeted the quarriers, they cleansed themselves in the creek above the waterfall, then camped near the Three Maidens for sweats, prayers, and offerings. Once at the quarries, they made additional offerings, which they took with them when they returned to their camps.

In the transitional landscape, some of these ceremonial activities continued but at different, and perhaps inappropriate, locations. The encroachment of such projects as the railroad passing through the upper portion of the traditional site, establishment of the Indian School, and the growth of the Pipestone community forced Indian people to relocate where they performed the ceremonial activities. These changes possibly caused them to modify or discontinue some aspects of the activities as well.

In the contemporary landscape, few ceremonial activities remain. Sweat lodges are allowed near the quarries when these are being worked, but not at the Three Maidens where they were traditionally located. Purification takes place within the sweat lodges, as do offerings and prayers, which are made as well in the quarries. The ceremonial camps no longer exist, privacy is difficult to obtain, and the landscape has shrunk to less than half of its original protected size. The vegetative community, under the influences of farming, grazing, and lack of burning, has a composition dominated by introduced species that limit traditional species distribution to small areas and dispersion throughout the monument.

Restoring the traditional cultural landscape in its entirety will be difficult if not impractical. The more drastic changes to Pipestone Creek and Winnewissa Falls cannot be easily remedied. The blasted channel cannot be rebuilt, and redesigning the upper creek to its previous channel would require an extensive partnership among residents and local, state, and federal agencies. Wetland habitat, however, could be restored including streambank habitats of medicinal and ceremonial plants. While consultants have varied opinions about stream restoration, they would like to see the contaminants stopped.

Restoring the integrity of the Three Maidens, however, is crucial to the ceremonial process because the quarriers need privacy for their prayers, offerings, and sweats. They need to be able to cleanse themselves in Pipestone Creek above the falls, which requires massive clean-up of the polluted waterway. They need to be able to up sweat lodges near the Three Maidens and stay for several days while they quarry.

More easily addressed are questions about the plants. Do the tribes need to obtain plants in the monument for this ceremonial process? If so, what plants and how much gathering is necessary? Where are the most appropriate places for those plants? Red willow⁸ (*Cornus sericea*), for example, is an important ceremonial plant that is used in the tobacco mix that is smoked and offered to the guardian spirits of Pipestone. While this species did not occur in the traditional landscape as Catlin ([1841] 1965), Nicollet (Bray and Bray 1976), and White (1869) pointed out during their respective visits to the quarries, it has a culturally significant place in the Pipestone landscape today. The plants of the traditional landscape are part of the classic composition of the tallgrass prairie. As several consultants pointed out, managing for native species that have cultural significance in Pipestone National Monument is their preferred focus of prairie restoration efforts, including tree and shrub species, like the red willow, that were found in depressions and small coulees of the historic tallgrass prairie.

⁸ Red willow is the local common name for redosier dogwood.

Some people believe that ceremonial and medicinal plants were located at specific kinds of places by Indian people as a way of managing the landscape. This practice assured the proper relationship between plants and place, preserved the sacredness and power of the plants and place, and fulfilled their responsibilities as caretakers of the place. The changes that occurred in the transitional Pipestone landscape likely displaced and reduced many of these plants as Indian people relocated their ceremonial activities. They may or may not have been able to move these plants to the new sites. In either case, however, the connections between plants and place were broken putting the sacredness, power, and integrity of the landscape in jeopardy. Restoration of the plants to their proper places might be guided by the tribes based on the inventory recommendation previously mentioned. They could also determine the ceremonial and medicinal plants that have a place in Pipestone, as well as the proper places for those plants.

During our conversations with tribal representatives and several park employees, we heard about possible future scenarios that presented intriguing possibilities. As the ‘place’ where these things came together, we felt it worthwhile to offer a hypothetical alternative to illustrate how far-reaching the possibilities are. Following the establishment of a working relationship with the tribes in which their priorities and goals for the monument are identified, a more realistic scenario might include an extensive restoration of the traditional tallgrass prairie, including burning with the tribes, relocating the Visitor Center from the center of the monument to an outer boundary and away from the Three Maidens, the waterfall, and Leaping Rock. A trail system of two separate pathways might be designed such that a public trail allows visitors to enjoy the plants of the tallgrass prairie, view a quarry, and observe the sacred features – the Three Maidens, the waterfall, and Leaping Rock – maybe from a respectful distance. This trail might be restricted to an area above the quartzite ridge, or have limited access to an area below the ridge.

The second part of the trail system would be restricted to Indian people for ceremonies, quarrying, and teaching their children about the plants, the landscape, and their culture, at least for certain times of the year as identified by the tribes. This trail might be concentrated below the quartzite ridge and accessed from a location away from the Visitor’s Center. Privacy for ceremonies might be achieved by keeping the native tree and shrub species that offer screening from visitors. Including the Three Maidens in this part of the trail system presents the greatest challenge but may be achieved through a partnership of Pipestone National Monument personnel, tribal representatives, and Pipestone community leaders.

While the division of areas and management strategies in this alternative is uncommon, it is similar to strategies in management units that have sensitive species and areas that must be closed for weeks or months at a time to accommodate breeding or habitat needs (Grand Canyon National Park 2004)⁹. In the case of Pipestone National Monument, such a strategy would have a cultural basis rather than a biological as well as legislation protecting sacred sites and religious practices (Executive Order 13007 and the American Indian Religious Freedom Act). While our

⁹ “Small sections of the Colorado River will be closed in Grand Canyon National Park to protect the nesting sites of an endangered bird, park officials said. Sections in River Mile 28 and River Mile 50 will be closed from May 1 to July 15. The closure is designed to protect the endangered Southwestern willow flycatcher, said park spokeswoman Maureen Oltrogge. No hiking, camping or river landings will be allowed in the area. The willow flycatcher is a small songbird that requires riparian vegetation for nesting and rearing young.”

presentation of this alternative is primarily ‘food for thought,’ it is also a strategy that is responsive to a sentiment conveyed by several park employees upon our arrival, that if ever a park could manage natural and cultural resources together, it would be Pipestone National Monument.

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