SHAMANISM, DREAM SYMBOLISM, AND ALTERED STATES OF CONSCIOUSNESS IN MINNESOTA ROCK ART: ETHNOHISTORICAL ACCOUNTS REGARDING PIPESTONE, JEFFERS, AND NETT LAKE

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Abstract

Not all Minnesota rock art is ancient. In fact, some of the most interesting petroglyphs are from the historic period. A two-pronged research approach towards Minnesota rock art involving, (1) a review of local ethnohistorical sources, and (2) evaluation of the applicability of a "neuropsychological" model and a growing corpus of interdisciplinary information regarding entoptic and somatic experiences while in altered states of consciousness, indicates that much of Minnesota rock art involves represention of dream symbols, shamans, and visual and somatic experiences while in altered states of consciousness. The rock art ultimately appears to reflect old and widespread concepts of manidos and tutelary spirits, shamanistic practice, and Native American naming traditions.

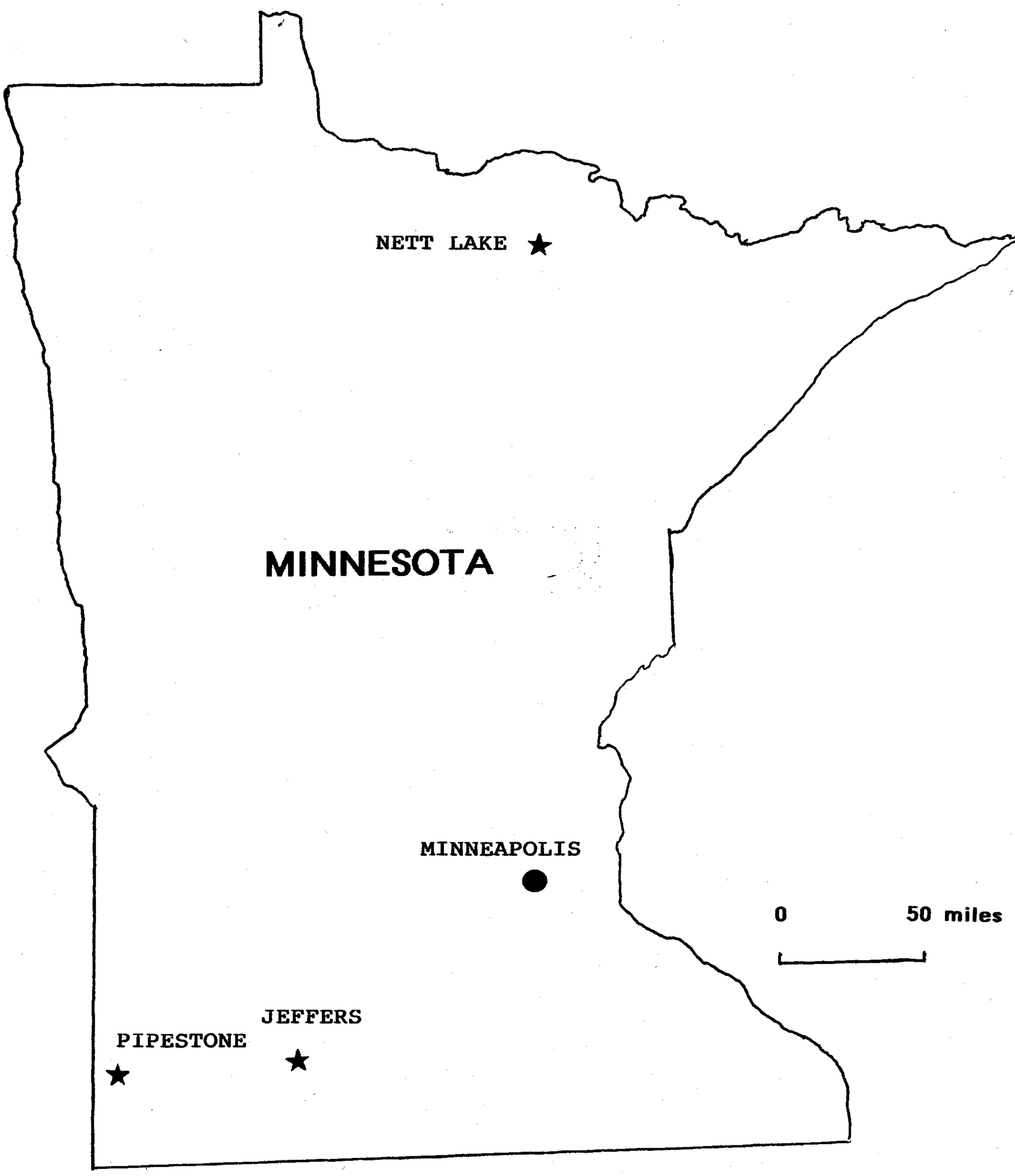

Figure 1. Location of the Pipestone, Jeffers, and Nett Lake petroglyph sites in Minnesota.

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Ethnohistorical accounts re: Pipestone, Jeffers, and Nett Lake

Introduction

As Campbell Grant has acknowledged: "Interpretation is certainly the most difficult and controversial part of rock art study" (Grant 1983:12). These images of the past come from several cultures, and from several time periods (Lothson 1976:29-31). We know that pitched battles, cultural disjunctions, and migrations of different cultural groups have all occurred in Minnesota during historic times (Winchell 1911:580-584).

The common underlying aspect of most of the rock art, is that it is related either directly or indirectly to shamanism, dream symbolism, altered states of consciousness, and the widespread concept of manitous and guardian spirits (Vastoukas 1973:47; Snow 1977:42-48; Rajnovich 1989:179-194; Benedict 1922:1-21).

This is not to deny the tribal heterogeneity and cultural particularity, described by Benedict (1922), nor the variablity of individual shamanistic experiences and meanings, described by Lewis-Williams and Dowson (1988).

Religious and spiritual beliefs have innovative and dynamic qualities, as well as static ones. Cultural similarities across cultures exist, and cultural borrowing during historic times appears to have taken place, particularly with regard to organized shamanism (Pond 1986:93). This was true even between groups that fought each other in battle. Samuel Pond, for example, in his book <u>The Dakota or Sioux in Minnesota as They</u>

Were in 1834 thought that the eastern Dakotas may have received the shamanistic Wakan "medicine lodge" from their eastern neighbors, the Ojibwa, Winnebago, Sacs, or Foxes "all of whom had it" (Pond 1986:93). Pond's description of the medicine dance was similar to those of observers of the Ojibwa ceremony (ibid: 93-94; Hoffman 1891; Coleman 1937). As Pond noted, the Wakan society was not common to all the Dakotas (Pond 1986: 93).

Alice Kehoe (1989) has provided an interesting case study of the dynamic qualities of religion, particularly in responding to times of stress. Kehoe made a study of Jack Wilson's 1889 vision, the Ghost Dance religion that resulted, and the way this religion reached the western Dakota, eventually influencing the events surrounding the massacre at Wounded Knee Creek:

> Jack Wilson's religion was immediately taken up by his own people, the Northern Paiute, by other Paiute groups, by the Utes, the Shoshoni, and the Washo in western Nevada. It was carried westward across the Sierra Nevada and espoused by many of the Indians of California. To the south, the religion was accepted by the western Arizona Mohave, Cohino, and Pai, but not by most other peoples of the American Southwest. East of the Rockies, the religion spread through the Shoshoni and Arapaho in Wyoming to other Arapaho, Cheyenne, Assiniboin, Gros Ventre (Atsina), Mandan, Arikara, Pawnee, Caddo, Kichai, Wichita, Kiowa, Kiowa-Apache, Comanche, Delaware (living by this time in Oklahoma), Oto and the western Sioux, especially the Teton bands. The mechanism by which this religion spread was usually a person visiting another tribe, observing the new ceremonial dance and becoming inspired by its gospel, and returning home to urge relatives and friends to try the new faith. Leaders of these evangelists' communities would often appoint respected persons to travel to Nevada to investigate this claim of a new messiah. The delegates frequently returned as converts, testifying to the truth of the faith and firing the enthusiasm of their communities (Kehoe 1989:8).

Kehoe's study does not imply, however, that there was cultural uniformity. There were fundamental differences between

tribal groups, particularly with regard to traditions about "visions" in the plains and northern woodland cultures.

Ruth Benedict (1922) pointed out that, in spite of "widespread uniformities," the Woodland Algonkian and Plains cultures varied considerably and each tribe had "its own distinctive version," and differed regarding the age a vision quest might be undertaken, the significance of self-torture, and what she called "vision patterns" (ibid:3-4). Self-torture was not necessarily synonomous with obtaining visions, a laity-shamanistic distinction sometimes existed, and the vision quest was not necessarily synonomous with obtaining a guardian spirit (ibid:1-16). Tribal practices ran "the whole possible range of variation," and in addition, varied regarding whether or not a vision could be bought and sold or transferred (ibid:16-21). Benedict found the heterogeneity to defy classification and concluded that "topical studies of religion must lack the rich variety of actuality, and imply a false simplicity" (ibid.:21).

Within tribal groups, like the Ojibwa, variation was also present. Albert B. Reagan, the Bois Fort Indian Agent, noted the distinctive nature of the Nett Lake Midewiwin practices when compared to the general description given by Hoffman (1891) (Winchell 1911:609).

We also know that the meaning of the rock art to the rock artist may in some cases have been disguised, or was intended to be secret (Densmore 1979:80). Dream symbols can involve layers of meaning only fully understood by particular individuals--long

since dead (Id.) Working so many years after their creation, archaeologists are dependent upon incomplete and limited information.

Frances Densmore (1978), in her description of Ojibwa "Picture Writing" observed that:

> The subjects represented in picture writing were of two sorts: (1) esoteric, in which the material was understood only by initiates; and (2) nonesoteric, in which the purpose of the writing was to convey information in a public manner. To the first named belong the records, writings, and songs of the Midewiwin, the stories of Winabojo, and the drawings used in working charms. To the last named belong "totem marks," the messages left by travelers, the maps carried by travelers, the illustrations for a narrative, records of time, and the names of persons.
>
> To both classes, in a measure, belong the dream symbols which publish the subject of a dream but give no indication of its significance. . . . The Mide picture writing could be used to represent the name of a person (Densmore 1978: 174-176).

All investigators of rock art imagery recognize that much of the original meaning went with the rock artists to their graves. Historic Native American cultures have also attached their own stories with new cultural significance to old rock art sites that they did not create (Reagan 1958). In such circumstances, it becomes all too easy for an imaginative person to "overinterpret" what limited data there is, and construct a very large edifice upon a very small foundation. The metaphorical language of ethnohistorical accounts, the avoidance of ethnocentric and false analogies, the problem of similar morphology but different meanings, the illogic of those who imply meaning from numerical data, stereotyping of "native thinking" with no ethnographic basis, and a myriad of other interpretive difficulties have been discussed for years in the rock art literature (Lewis-Williams

1986). The task must be recognized as doing the best job with the models and ethnographic and archaeological materials available.

Even with such epistemological concerns the rock art still remains, and still needs an educated and anthropologically informed interpretation.

A surprising amount of interest exists regarding Minnesota rock art. The Jeffers Petroglyphs site, which is not well publicized, or even particularly well known within the state, receives 11,000 visitors a year (Ellig pers. com. 1995). Recognizing the need for conservation of the site, the Minnesota state legislature recently appropriated $850,000.00 for the site's renovation (Id.). If archaeologists do not offer an anthropologically informed interpretation of these highly visible images of the past, then the seemingly ever present promoters of wayward Northmen and ancient astronaut theories will move into the vacuum and do the job for us.

Campbell Grant has pointed out a classic case of this with rock art in the west.

> With the development of road systems in the western states, many travellers became aware of the mysterious and fascinating markings in the caves and on the exposed cliffs and boulders, and an army of amateurs happily filled the void left by the professionals' lack of interest. The most absurd and fanciful theories were put forward. Steward (1937) noted that amateur speculation had claimed that rock paintings were 'markers of buried treasure, signs of ancient astrology, records of vanished races, symbols of diabolic cults, works of the hand of God, and a hundred other things conceived by feverish brains' " (Grant 1983:9).

To begin then the difficult business of interpretation, I have chosen to review two somewhat neglected sources of information about rock art--our local ethnohistorical sources,

and recent scientific medical research regarding altered states of consciousness. The former I have included because it is clear that not all rock art in Minnesota was made during prehistoric periods (Lothson 1976:31; Catlin 1844:246; Bray 1970:51-52), and the latter I have included because at least some of the rock art appears to ultimately reflect altered states of consciousness such as imagery from dreams and visions (Dewdney 1967:22; Rajnovich 1989:184-186).

The Ojibwa

The Ojibwa are one of the largest tribes in North America, and in the late nineteenth century extended from the Red River through eastern Ontario, and from Manitoba through Minnesota, Wisconsin, and Michigan (Hoffman 1891:149). The Ojibwa have been in northern Minnesota since the 18th century (Hallowell 1992:20-25). According to a statement made at Mackinaw in 1736 the Dakota controlled the northern and southern shores of Lake Superior (Hoffman 1891:150). Hoffman indicates that: "It is possible, however that the northern bands of the Ojibwa may have penetrated the region adjacent to the Pigeon River and passed west to near their present location thus avoiding their enemies who occupied the lake shore south of them"(Id.) The Pigeon River is part of the present border between Minnesota and Ontario. Population statistics for Ojibwa and Ottowa based on census work exist for Wisconsin and Michigan as early as 1832 (Cleland 1992:101). One controversial view holds that the Dakota may have been pushed out of this area by the Ojibwa armed with French supplied firearms (Winchell 1911:581). The Ojibwa were not in

Minnesota in 1659 when Radisson and Choart visited central Minnesota (Id.).

The three rock art "areas"

Three rock art "areas" meet in Minnesota according to the synthesizers of the North American "stylistic" approach (Grant 1983:8; Wellmann 1979:12). The "northern woodlands" is an area referring to much of Canada, including the north and northeastern area of Minnesota. This region may have had in historic times Cheyenne, Dakota, Cree and more recently Ojibwa inhabitants, and perhaps others (Winchell 1911:580; Cleland 1992:97-102).

A second "stylistic" rock art area identified as the "Great Plains" refers to the prairie region of North America from Canada to Texas, including the west and southwestern areas of Minnesota. This was the home of Cheyenne, Oto, Iowa, Oneota, and Dakota and others during more recent periods (Grinell 1966; Winchell 1911:62-67; Ager 1989:2).

The "eastern woodland" area encompasses most of the eastern United States including the Twin Cities and southeastern Minnesota. Campbell Grant, who defined these regions, notes one of the earliest reports of rock art to be from Marquette.

> In 1673 while exploring the upper Mississippi River, Father Jacques Marquette saw paintings of horned and winged monsters high on a cliff which he described in his journal (Mallery, 1893: 77-9)." (Grant 1983:7).

The critique of stylistic analysis for dating "culture groups"

The stylistic or "formal and classificatory" approach has been criticized by Whitley and Loendorf (1994:xii), and Whitley (1994:87-89) on a number of fundamental and compelling grounds. Their full criticism is too lengthy to fully elaborate in the

space available here, but a couple of their arguments illustrate the problems:

> There have been numerous problems with this . . . not the least of which is that we have about as many defined rock art styles in any given region as researchers working there. More to the point, archaeologists have widely cited a definition of style (in Schapiro 1953) that suggests a taxonomic equivalence with an archaeological "culture" in the cultural-historical sense, and then have proceeded to completely ignore the definition operationally, meanwhile retaining its cultural-historical implications (for example, Heizer and Baumhoff 1962; Hedges 1982; Schaafsma 1985). . . Aside from the conceptual congestion, the empirical evidence has always suggested that the Heizer and Baumhoff stylistic analysis was implausible: the almost invariable presence of all the engraved styles at many of the petroglyph sites in the region implies at the outset that these "styles" may well have resulted from the same prehistoric culture if not the same artists. Even more to the point, all chronometric evidence, including direct cation-ratio (CR) and AMS 14 C numerical ages, as well as relative dating fails to support any putative temporal differentiation in these Great Basin Styles. Each style was produced from the latest Pleistocene into at least the last 500 years . . . (Whitley 1994:87).

This important methodological debate will most likely continue for the forseeable future because of its implications both for the dating and interpretation of rock art.

Vision quests and the medical model of altered states of consciousness

In ethnographic usage, a "puberty vision quest" was a widespread Native American religious tradition (that included the Ojibwe, Dakota and Cheyenne), and was the attempt by a young Native American to obtain a vision and a guardian spirit at puberty, typically by participating in a sweatlodge followed by fasting for about four days, concentrating intensely, weeping openly, or 'crying for a vision', walking about continuously, staying awake continuously, smoking tobacco, etc.

One of the earliest of the tribes that were in southwestern Minnesota in historic times were the Cheyenne. Grinnell notes that Carver, in 1766, reported that he saw "Schians" in a great camp that he visited on the Minnesota River, and the "Schianese" lived farther to the west (Grinnell 1962:16). Sioux traditions indicate the Cheyenne had lived on the Minnesota River, but moved west (Id.).

The Cheyenne looked for vision quest and sacrifice locations that were not especially dangerous, e.g. on a high point, such as a hill on the south or west side of a river where they could see over the prairie, or at a point of rocks on the south or west side of a lake (Grinnell 1962:80-81).

It is interesting to note that the Jeffers site is on the west side of the Little Cottonwood River on a high point that has a panoramic view of the prairie for miles; the Spirit Island site, at Nett Lake, is on the north west side of an island, about a quarter mile from the village, on an outcrop of rocks overlooking the lake. Before they were physically moved by Charles H. Bennett, the Pipestone petroglyphs were near the "Medicine Rocks," also called the "Three Maidens," towards the southern end of the plain and to the west of the principal exposure of rocks (White 1989:21-22).

The Cheyenne youth on a "sacrifice" or "vision quest", if he slept at all, lay on his face with his head towards the east with no shelter or covering (Grinnell 1962:80). If he was offering a sacrifice that involved being skewered to a pole, he was seated facing east as the knife was run through the breast skin

(ibid:82). Men also "swung to the pole" at the time of the Cheyenne Medicine Lodge (ibid:83). If the sacrifice involved standing on a buffalo skull all day in one position looking at the sun, he would face east in the morning and slowly turn west (ibid.:84). One version involved standing all night in water up to his chest (Id.).

The Native American tradition of "dreaming for power" is described in a sizeable anthropological literature (DeMaillie and Parks 1987:25-27; Densmore 1979:71-72; Grinnell 1962:81-85; Dugan 1985:131-171; Benedict 1923: 1-85).

Adult vision quests might be undertaken in search of medicine, spiritual knowledge, foreknowledge, as a sacrifice for success in battle, and so forth (Id.). Visions such as those of Nicholas Black Elk, a Lakota medicine man, occurred during unexpected childhood illness, the ghost dance, regular dreams, just sitting down to breakfast after recovering from being very sick, and vision quests (DeMaillie 1984:110, 143, 149-150, 213, 227-231, 235, 252-259, 261-266). Black Elk's visions appear to have occurred during or after sickness, delirium, and coma, or after extended fasting, crying, fatigue, intense concentration, tobacco usage, dehydration, sleep deprivation, sensory deprivation, and hyperventilation (Id.).

Altered states of consciousness

An "altered state of consciousness" (ASC) is a broad medical term that includes a number of states including those induced by drugs, suggestion, intoxication, delirium, visions, and dreaming. Perceptions of space and time are frequently altered (O'Brien and

Cohen 1984: 20).

In medical terminology, a "hallucination" is "a false sensory perception in the absence of an actual external stimulus" (Siegel 1977:132). The study of hallucinations has a large medical literature, extending from contemporary laboratory experimentation with test subjects, back to the beginnings of ancient science (Assad, 1990, Klüver 1966, Moreau 1973, Slade and Bentall 1988).

Ghazi Assad, M.D., Clinical Associate Professor of Psychiatry at New York Medical College and Director of Inpatient Psychiatric Services at Danbury Hospital, in his medical treatise Hallucinations in Clinical Psychiatry: A Guide for Mental Health Professionals reached a conclusion similar to Aristotle (McKeon 1941:619) when he postulated that hallucinations are:

> . . . the failure of a central screening mechanism that controls the flow of stimuli from both the external environment and the brain, and serves the function of excluding extraneous stimuli that are not relevant to attentiveness. This mechanism is normally in operation during waking states and non-R.E.M. sleep and is "turned off" during R.E.M. sleep. The mechanism may also be "turned off" during waking states in the presence of certain pathological processes, toxic states or abnormal physiological conditions (West 1962,1975) . . . It is likely that the "on-off switch" is mediated through a group of several neurotransmitters that are influenced by physiological as well as pathological changes (Asaad 1990:121).

Hallucinogenic drugs disrupt the normal flow of neurotransmitters throughout the central nervous system including turning off the screening mechanism in the brain stem, so that certain components of R.E.M. sleep intrude into the waking period (Id.). Although hallucinations are mostly generated in the brain stem, they are not exclusive to that site, and probes into the temporal lobe

generate hallucinations (Id.).

Mullaney, et al. (1983) studied male volunteers, mostly college students, during a test of sustained continuous performance (playing computer games for $2 per hour) for 42 hours and found that the resulting hallucinations occurred more frequently in those who did not take a nap or a break. The combination of fatigue, sustained concentration, sensory deprivation and effect on circadian rythms may have contributed to the hallucinatory effects. One subject found himself trying to receive something from what he thought was a woman standing in front of him whom he had hallucinated (ibid.:645). Another subject was in the bathroom and "everything was breaking up into particles and vibrating" (ibid.:646).

The relationship of shamanism to hallucination has a large anthropological literature including cross-cultural analysis (Harner 1973; Goodman, Henney and Pressel 1974; Slater 1977).

Erica Bourguignon sampled 488 societies regarding altered states of consciousness, excluding dreams, and found ritualization of dissociational states in 437 or 89% of the worldwide sample; 251 societies or 51% of the sample had possession trance, and 302 societies or 62% were found to have trance or ritualized patterns involving hallucinations (Bourguignon 1970:183-189).

Hallucinations may be induced by a long list of things, some of which lay people often find surprising. They "may be induced by emotional and other factors such as drugs, alcohol, and stress" (Siegel 1977:132), boredom or prolonged exposure to a

monotonous environment, such as long distance truck driving or during aviation on long flights, sensory deprivation (Heron 1958: 52,56), electrical stimulation, flickering light, fatigue, intense concentration, auditory driving, migraine, schizophrenia, hyperventilation, rythmic movement (Lewis-Williams 1988:202), during delirium tremens or the second stage of alcohol withdrawal (Asaad 1990:39-39).

Hallucinations can occur in any of the five senses, i.e. vision, hearing, touch, taste and smell (Siegel 1977:132). Synesthesia, or "confusion of the senses" is fairly common in ASCs (Lewis-Williams and Dowson 1988:211). For example, "a touch on the skin . . . may feel blue" (Id.). In the later stages of hallucination a startling loud noise can set off colors and trigger the rapid Stage III iconic hallucinations. I would hypothesize that this may have been what was going on at pitted boulders (such as at Fort Ransom, North Dakota), cup and ring sites, and other petroglyph sites by lone shamans attempting to trigger synesthesia and the deeper stage of ASC with sound. The making of cupmarks takes about fifteen minutes of repetitive loud banging--about the time to have the hallucinogen start to work. One of the final bangs may have triggered the synesthesia, the rush of iconic imagery of Stage III hallucination, and the perceived entry into the rock. The loud banging, repetition, fatigue, and mental concentration to strike the same spot would have facilitated entering the deepest stage of ASC.

The Pipestone petroglyphs, George Catlin and Ojibwa dream symbols.

It is clear that not all rock art in Minnesota was made during prehistoric periods (Lothson 1976:31). In fact, some of the most interesting rock art was made during the historic period, but not necessarily within anyone's living memory. Artist and traveler, George Catlin wrote about his travels between 1832 and 1839 during a period when, as he put it: "The Frontier may properly be denominated the fleeting and unsettled line extending from the Gulf of Mexico to the Lake of the Woods, a distance of three thousand miles" (Catlin 1844:223). Catlin reported that at the Pipestone Quarry, in southwestern Minnesota, as well as at other places, he personally witnessed Indians recording their "totems" which he termed "symbolic names" by carving them among those rock carvings of older age (ibid.:246). :

> I have been unable to find anything like a system of hieroglyphic writing amongst them; yet their picture writing on the rocks, and on their robes, approach somewhat towards it. Of the former, I have seen a vast many in the course of my travels; and I have satisfied myself that they are generally the totems (symbolic names) merely, of Indians who have visited those places, and from a similar feeling of vanity that everywhere belongs to man much alike, have been in the habit of recording their names or symbols, such as birds, beasts, or reptiles; by which each family, and each individual is generally known, as white men are in the habit of recording their names at watering places,&c.
>
> Many of these have recently been ascribed to the North-men, who probably discovered this country at an early period, and have been extinguished by the savage tribes. I might have subscribed to such a theory, had I not at the Red Pipe Stone Quarry, where there are a vast number of these inscriptions cut in the solid rock, and at other places also, seen the Indian at work, recording his totem amongst those of more ancient dates; which convinced me that they had been progressively made, at different ages, and without any system that could be called hieroglyphic writing (Catlin 1844:246).

Analysis of the Catlin account

Unfortunately Catlin did not tell us which "Indians" he saw

carving their symbolic names at Pipestone, and elsewhere, and he did not tell us what the basis was upon which he satisfied himself that these were individual and clan totems.

The petroglyhs themselves look like portrayals of spirit animals and anthropomorphic spirits because of the heart lines, horns, etc. This would suggest that perhaps the individual's "totem" may have referred to his or her individual "dream symbol." Dream symbols, including representations of spirit beings, frequently appeared on robes, shields, drums, etc. A dream symbol is not the same thing as the "dream name." An Ojibwa has a private dream name related directly or indirectly to altered states of consciousness. This is usually a very private name. The dream symbol however can be public.

There are at least two reasons to think that Catlin may not have understood the difference between the representation of a dream symbol, connected with spirit power, and recording a more secular common name or clan totem.

First, an examination of the Pipestone petroglyphs themselves, shows that the "birds" and "beasts," include spirit animals with heart lines such as thunderbirds, and human stick figures with heart lines. Ojibwa clan symbols do not usually have heartlines (Winchell 1911:602). The petroglyph "reptiles" represented are turtles--some with horns, and some without. Although turtles can be a spirit animal, they are also are one of the Ojibwa clan totems. These turtles do not all appear with horns or heartlines and certainly some of them could be clan symbols. Clan symbols can also look like a spirit being from ASC

e.g. the "merman" clan totem is a therianthrope.

Campbell Grant points out:

> The heart-line motif appears to have originated in the upper Ohio Valley or in southeastern Minnesota, and spread westward as far as the Columbia-Fraser Plateau (Grant,1967:67). The Ojibwa believed that creatures with a heart-line had supernatural powers (Mallery, 1893:773). The turtle was regarded by some Algonquian tribes as a fertility symbol. This, with the frequent vulvaforms, would indicate prayers or ceremonies at the sites for supernatural aid in these matters. The 'power-line' joining humans with some symbol is found in many parts of the country and such a connection was believed to link a shaman to the spirit world (Grant 1983:53).

Densmore related that the totem traditions were themselves secret and known only to the chief Medas or "priests," but that it was known that "six beings in human form came from the 'great deep' and entered the wigwams of the Ojibwa" (Densmore 1979:10).

The petroglyphs at the Pipestone site do not fit the clan totem explanation very well. For example, Densmore's clan totem animal list does not include any thunderbirds or humans with heart lines as clan symbols. Complicating the Pipestone situation is one upright male figure who may be wearing a hat. According to at least one account, stickmen with hats are a reference to white men (Winchell 1911:607). To complicate matters further, Winchell also described a "narrative" birch bark scroll that represented a turtle simply as food eaten one night (Winchell 1911:608). It should be pointed out however that the medium of pictographic writing for this was birch bark, not hard quartzite.

It is true that clan totems were used for important occasions such as war, peace, or on the grave post (Winchell 199:602), but the Pipestone petroglyphs do not generally fit

known clan totems-they look instead mostly like a collection dream symbols. This suggests that Catlin may have lumped together all rock writing--including the recording of Indian dream symbols and references to spirit beings-- with "common names" and "family names." It is also possible that common names or nicknames were being represented with Mide pictography, which might give the appearance of a dream symbol. Finally it is possible that the spirit beings are all from earlier eras and the only thing being recorded in Winchell's time were clan totems, but this is very unlikely. As Vastokas (1973:44-45) points out, after analyzing Henry R. Schoolcraft's six volumes (1851-1857), there were actually two kinds of pictographic images that the Ojibwa would render in stone. Clan totems did mark game trails and water routes and had a strictly secular significance there. "Kekeenowin, on the other hand, were sacred and powerful spirit-images, generally restricted to the recording of shamanistic visions and referred to as Muzzinabikon" (Vastoukas 1973:45). Schoolcraft was himself part Ojibwa and was the Ojibwa Indian agent at Sault St. Marie, Michigan for 19 years from 1822 to 1841.

The second reason to doubt the clarity of Catlin's analysis is internal to his account. In a passage shortly after the one quoted above, while describing a Pawnee medicine man's robe, Catlin seems to use the term medicine and totem interchangeably. In describing the medicine man's robe Catlin says that: "On the sides there are numerous figures, very curiously denoting his profession, where he is vomiting and purging his patients, with

herbs; where also he has represented his medicine or totem, the Bear" (ibid.248). The representation Catlin reproduced shows a bear figure with a heart line, which usually represents a spirit. This would suggest that "symbolic totem" may have referred to an individual's dream symbol, obtained by a medicine man "namer," or an individual during the puberty vision quest, i.e. rather than a nickname.

Catlin admitted that he did not know that much about the "symbolic writing." He seems to conjoin "picture writings on rocks" with "symbolic names" in the passage cited above on page 246, but then distinguished "symbolic writing," which included medicine men's birch bark scrolls, from "picture writing" on page 248:

> Of these kinds of symbolic writings, and totems, such as are given in Plate 311, recorded on rocks and trees in the country, a volume might be filled; and from the knowledge which I have been able to obtain of them, I doubt whether I should be able to give with them all, much additional information, to that which I have briefly given in these few simple instances. Their picture writing, which is found on their robes, their wigwams, and different parts of their dress, is also voluminous and various; and can be best studied by the curious, on the numerous articles in the Museum, where they have the additional interest of having been traced by the Indian's own hand (Catlin 1884:248).

The Plate 311 referred to includes in the upper left corner a bird or thunderbird with a heartline. Just below it is a water panther. There are also two animals with arrows sticking out of the heart and there is one drawing of two humans-one or both of whom have been pierced by one arrow (Catlin 1844:Plate 311). These also would not appear to be clan symbols.

Pictography was used by the Midewiwin, (1) on prayer sticks, (2) on prescription sticks, (3) to record culture and history,

(4) to record game species, (5) to record hunting and war exploits, (6) in religious rituals, and (7) on song boards (Penny 1992). Generally however Ojibwa rock writing of spirit-images seen in shamanistic visions was a special matter with its own word to designate it--"Muzzinabikon" (Vastokas 1973:44).

Joseph Nicollet in 1836 described red chalk markings that were left on a rock on the upper Mississippi that meant "after two nights, or on the third day, a head of hair was taken from a Sioux" (Bray 1970:51-52; cited in Penny 1992:55). These were not carved petroglyphs but were chalked rocks.

We can conclude from the ethnohistorical accounts then that Ojibwa pictography had many uses, but that many of the permanent carvings on rock (perhaps referred to as "Muzzinabikon") recorded shamanistic visions including sacred and powerful spirit-images. We can also conclude that at least one eyewitness, George Catlin, claims to have seen petroglyphs in the process of being carved at Pipestone, and elsewhere, during historic times.

Dream names versus dream symbols

In addition to the direct recording by a shaman of his vison experience into rock, the recording of an non-shaman's dream symbol into rock also records a vision experience. To understand this for the Ojibwa one must understand Ojibwa naming practices.

According to Densmore (1979:52-53) the old Ojibwa naming practices fell into six classes: (1) the "dream name" was given ceremonially by a "namer," who was often a shaman, who had received spirit power in a dream, (2) the "dream name" acquired by an individual, was usually received during the individual's

puberty vision quest and was associated with the tutelary spirit involved in the vision, (3) a "namesake name" was given by parents and was frequently a dream name, but carried no spirit power with it. It would be naming a child after someone the parents respected, (4) the "common name" or "nickname" was short and frequently had an element of humor about it, and (5) a chief sometimes was known by the name of his kinship group.

Although the dream name was not spoken to others, particularly outsiders, the dream representation or a picture of a dream image was a public image and was commonly worn as an image on the headband or around the neck, on the blanket at the door of one's house, or around one's shoulders (Densmore 1979:82-83). As Densmore points out, "the subject of a man's dream was clear to all intelligent observers, but its significance was a secret that he might hide forever if he so desired" (ibid:83).

Representations of such sky spirits, animal spirits, special weapons (e.g. atlatls), events and mythical beings make up the bulk of the rock art at Pipestone, Jeffers, and Nett Lake. The subject of the dream symbols should therefore be "clear to all intelligent observers." The significance is what was secret and might be hidden forever.

If Christian baptism practices are any indicator, the historical continuity of religious naming ceremonies can be thousands of years old. Hoebel claimed that the naming of children was a universal human practice (Hoebel 1972:380).

For the Ojibwa, sickness was believed to come from a spirit underground, and dreams and visions were essential to curing

sickness (Copway:1850:39).

> There was on unappeasable spirit, called the Bad Spirit, Mah-je-mah-ne-doo. He, it was thought, lived under the earth; and to him was attributed all that was not good, bad luck, sickness, even death. To him they offered sacrifices more than to any other spirit, of things most dear to them. There were three things that were generally offered to the Bad Spirit, viz., a dog, whiskey, and tobacco,--fit offerings with the exception of the poor dog. The poor dog was painted red on its paws with a large stone and five plugs of tobacco tied about its neck; it was then sunk in the water; while the beating of the drums took place upon the shore and words were chanted to the Bad Spirit . . . Dreams, too were much relied on by our nation. They thought the spirits revealed to them what they were to do, and what they should be,--viz., good hunters, warriors, and medicine men. I would fast sometimes two and sometimes even four days. When fasting, we were to leave the wigwam early in the morning, and travel all day from one place to another, in search of the favour of the gods. I was taught to believe that the gods would communicate with me, in the shape of birds, animals &c.,&c. When I fell asleep in the woods, and dreamed some strange dream, I felt confident that it was from the spirits (Copway 1851:28, 38-39).

Densmore points out the essential relationship between the naming dream, and the dream article, to the curing of sickness in children.

> The gift of a small article representing the dream subject could be made at the feast but was usually postponed until a later day, and the occasion for the presentation of the article might be an illness of the child. Its parents, anxious concerning its recovery, might summon the namer who would make an article suggesting his dream and bring it with him. He would first "talk over the child," then tell of his dreams, give medicine to the child, "bless it," and assure the parents that it would recover. Gage'win said that very sick children often recovered after this had been done (Densmore 1979:55).

Odinigun, Densmore's informant, related the dream that gave him the authority and power to name children (ibid:56). In his dream he saw three men. One was from the sky, one was from the North "and one whose body was half under the ground" (Id.). The

one whose body was half under the ground spoke to him twice (Id.). The image of a half-emerged human with upraised arms appears in Winchell (1911: 610-611 Plate IX), in an illustration of an Ojibwa medicine Tom-Tom. Winchell's caption indicates: "The Ojibwa tom-tom, as used in the practice of medicine by the mide, was similar to the dance drum of the Dakota, except that it was smaller, being only about seven inches in diameter. It was both drum and rattle, having inside a number of pebbles. It was painted red and black, and the medicine man from time to time tapped the patient and rattled the pebbles to frighten away the bugs, or evil monidos" (Winchell 1911:610). An evil monido or manido may have referred to the evil spirit in the patient or the one underground that caused sickness. The half emerged man with upraised arms was a powerful spirit received in a vision or dream. Such powerful spirit images and sources of power were also painted on northern Plains tribes "hand drums to accompany the prayers and songs of important religious ceremonies" and also on shields and shield covers (Penny 1992:279).

In the interpretation section I suggest that the "half emerged human" was also portrayed in Ojibwa rock art through the vertical plane as well, with one full arm, half of the other arm and one leg emerging from the earth. This kind of figure appears in Lips' book on the Nett Lake Ojibwa (1958:343) where one figure is holding what I would interpret as a medicine bag and is connected with a zigzag to a second figure rotated and half emerged from the earth. Monroe Killy has said that the zigzag was superimposed on the other figures (Killy, pers. com. 1995).

Such zigzags are a common stylized motif for connection and power, and appear repeatedly in the birch bark scrolls (Hoffman 1891). As Rajnovich (1989) points out: "The upraised arm figure is a frequent morph on the pictographs . . . A number of song scrolls interpret an arms-up sign as a depiction of giving and receiving medicine" which she then illustrates with several specific examples (Rajnovich 1989:187).

Pipestone as part of the sacred landscape

Catlin reported that the Pipestone Quarry was a sacred place and that Ojibwa and others from all over the region (if not North America) made "pilgrimages" there to obtain stone for their sacred pipes.

> I have already got a number of most remarkable traditions and stories relating to the "sacred quarry;" of pilgrimages performed there to procure the stone, and of curious transactions that have taken place on that ground. It seems from all I can learn, that all the tribes in those regions, and also of the Mississippi and the Lakes, have been in the habit of going to that place, and meeting their enemies there, whom they are obliged to treat as friends, under an injunction of the Great Spirit" (Catlin 1884:31).

Native Americans and Euro-Americans might both enthusiastically carve their names (and dream symbols) into the rock at Pipestone and elsewhere to show "I was here," but in the case of Native Americans at what was a special place, one must ask if there was a level of meaning that involved permanently recording one's vision at a spiritually powerful place. All of the heart lines suggest a possible place of spirit power.

The reddish color of the rock is a common feature at Pipestone, Jeffers and Nett Lake. Siegel has noted in his research on hallucination that the incidence of subjects

reporting that images are red increased as the dosage of the drug increased (Siegel 1977:134). One might ask if the color may have been a factor of affinity in selection of these sites for recording vision imagery.

Shamanism, hallucinogens, and somatic transformation beliefs

The phallic figures with upraised arms are not necessarily obscene, but may accurately record physical changes during a hallucination. According to Linda Schele (1994), who has studied this with the Maya rulers who used large cigars to go into altered states of consciousness (to turn themselves into "jaguars"), tobacco intoxication will cause phallic erection from the changes in blood pressure. This should not be a surprising representation if one remembers that hallucinations while awake affect the brain stem, in effect causing a waking "dream." Wild tobacco is a more powerful addictive drug than one might expect. A very small amount of nicotine (also used as an insecticide) is highly toxic and can be deadly (Patniak 1992:127).

Smith refers to the use of "dream-inducing medicine" by Ojibwa shamans.

> From these symptoms they diagnose the disease. Usually they want time to dream over the case, and drink a draught of their own dream-inducing medicine before going to sleep (Smith 1932:349).

Smith (1932:405) lists catnip (Nepita cataria) leaves as being used by the Flambeau Ojibwa in making a beverage tea. Siegel in a table of herbal preparations with psychoactive effects, lists catnip (Nepita cataria) as a mild hallucinogen smoked or used in tea as a marijuana substitute (Siegel 1976:454).

One of the intriguing entries is for the plant "spreading dogbane" (Apocynum androsaemifolium). The Pillager Ojibwe said it "is one of the roots the use of which is taught in the fourth degree of the medicine lodge, and that it is not only eaten during the medicine lodge ceremony, but is also chewed to keep the other witch doctors from affecting one with an evil charm" (Smith 1932:428). This specific plant is not mentioned in any of several sources this writer checked on herbs, poisons, and psychoactive substances. The dictionary (RDGED 1966:392) however lists dogbane as typifying a family (Apocynaceae), that includes periwinkles. Periwinkle (Catharanthus roseus) is listed by Siegel (1976:474) as a hallucinogen that if smoked or made into a tea is a euphoriant. A euphoriant is a drug that induces a feeling of well-being, relaxation, and happiness (RDGED 1967:457).

Atropine hallucinogens can be obtained from plants that are widely available in North America and Europe. A study of European withcraft's relationship to widely available atropine hallucinogens indicates that older women "riding the broomstick" were ingesting atropine hallucinogen through the skin (Harner 1973:131). Harner suggests that the effect of these drugs also accounts for the stories of lycanthropy, or the belief in human transformation into a wolf or predatory animal (ibid.:140).

Black Nightshade (Solanum nigrum), a deadly and very poisonous plant due to its atropine content, is listed by Reagan as being used by the Nett Lake Ojibwa as a medicine and in their medicine ceremonies (Reagan 1928:239). Atropine is well known to the medical profession as a medical drug, as a hallucinogen used

by the "hippies," and as a poison that can kill (Patnaik 1992:130; Ellenhorn and Barceloux 1988:1257).

Lilliputian hallucinations and rock art

One of atropine's side effects is what doctors call "lilliputian hallucinations" where the subject sees "little people," often for half an hour (Asaad 1990:6,39; Leroy 1922:325-333). These lilliputian hallucinations are also commonly seen in the second stage of alcohol withdrawal in those long term alcoholics with delerium tremens (Asaad 1990:39). I suggest that these effects may account for reports of "little people" on a worldwide basis. Any hallucination, no matter how induced, can potentially cause a lilliputian hallucination, since visual distortion is a common effect, but atropine and alcohol withdrawal have been particularly noted by clinical reports to be associated with the phenomenon. As any student of "B movies" knows, "a forced perspective shot" in filmmaking simply requires visually confusing or blending foreground with background in order to create the lilliputian illusion (Bass 1995:16). Something akin to this may be going on during the synesthesia and distortion of perception of hallucination.

The Maymaygwayshi and rock art

Multiple ethnographic accounts from Saskatchewan, Manitoba, and Ontario indicate that the rock art of the Algonkians, including the Cree and Ojibway, are directly connected to dreams and visions (Rajnovich 1989:184-185). Half of the people Dewdney talked to said that the Maymaygwayshi or "little people" made the rock art. This may have originally reflected a taboo about talking about a dead shaman, and the failure to distinguish the

shaman from the shaman's spirit helper (Whitley 1994:82).

Pipestone and Jeffers physical connection

The Jeffers site and the Pipestone Quarry are both part of the same Red Siouz Quartzite bedrock that runs for some 300 kilometers from New Ulm, Minnesota into South Dakota (Ojakangas and Weber 1984:2-3; Lothson 1976:6). Red Rock Ridge, of which the Jeffers site is a part, is 23 miles long and in areas rises 100 to 300 feet above the landscape (Lothson 1976:6). The Jeffers site is "on a migratory game trail along the terrace of a river" (Wellmann 1979:153), and would seem to be in line with a possible "pilgrimage" route to the well known quarry. The Jeffers bedrock is in use as a modern quarry for the the hard quartzite found there. Red Sioux Quartzite from South Dakota may have been used during the Archaic period for projectile points because of its durability (Shay 1971:52). Examples were reported at the Itasca Bison Kill Site in northern Minnesota where it may have been an imported stone (Id.).

Anyone who has built atlatls and spears or darts is familiar with the importance of durability. An obsidian (natural glass) or bone projectile point is sharp but breaks with any repeated use e.g. practicing throwing at a target. In experiments constructing and using atlatls and spears with all four materials this writer has found basalt and Red Sioux Quartzite to be the most durable and maintenance free projectile points.

The Jeffers site location

From the Jeffers site a nearly 360 degree panorama can be seen, including buildings from distant towns. The Red Rock Ridge

runs at a perpendicular angle to the Little Cottonwood river and would have been an easy path in an environment of tall prairie grass. The site is at the intersection of a water route, game trail, and bedrock "road" through the grass. It also was near three excavated settlement sites (Lothson 1976:2,5). The rock ridge itself may have been considered special or sacred and possessing spiritual power.

At Jeffers, some of the oldest petroglyphs were carved into the softer areas of the bedrock, where they would presumably be easier to make. This raises the interesting possibility that under the sod are additional petroglyphs or an outcropping of the much softer pipestone.

It may also have been the case that recording one's vision permanently at Pipestone or Jeffers was akin to permanently recording one's vision in the form of a carved pipe (Densmore 1979:80).

The Pipestone site location

The Pipestone petroglyphs were originally located at the Pipestone Quarry in the southwestern corner of the state. Native Americans quarried carvable clay stone (catlinite) to make their pipes. This mineral is found within beds of Red Sioux Quartzite.

Theodore H. Lewis described the petroglyphs original location as being on the horizontal quartzite bedrock around the "Three Maidens"--enormous granite glacial erratics, similar in size to some of the largest Avebury megaliths (Winchell 1911:362).

Charles H. Bennett, "the Father of Pipestone City," cut the petroglyphs out of the rock before 1889, but Theodore H. Lewis was able to trace 79 of them (Id.). The Lewis drawings include mostly zoomorphic and anthropomorphic figures (Lothson 1976:34).

Burial mounds and Oneota habitation debris have been found in the area near the quarry (Sigstad 1970; Lothson 1976:34). The earliest inhabitants may have been the Oto and Iowa (Ager 1989:3).

This area has been historically associated with the Yankton Sioux. In 1700, the French trader Pierre Charles Le Sueur called them the "Hinhanetons" at the "village of the red-stone quarry" (Hoover and Brugnier 1989:9). The site may have been a quarry for 400 years or more (Rambow 1989:1). The site is now federally protected as Pipestone National Monument.

Other midwestern outcrops of pipestone or catlinite include those at Rice Lake, Wisconsin, Garretson, South Dakota, Norris, South Dakota and Norton, Kansas (Ager 1989:4).

The carvings at Jeffers

The Jeffers Petroglyphs site is the clearly the largest currently known site in Minnesota with about 2000 petroglyphs carved into the Red Sioux Quartzite and softer sandstone of Red Rock Ridge. The Jeffers petroglyphs include figures of animals (such as bison and turtles), anthropomorphs, atlatls, projectile points with tangs, bison hoofprints, snakes, zoomorphs with embedded spears, geometric figures including dots, circles, lunates, and so forth.

The panels have both outline and entoto figures and many

figures appear to be in clusters. Spatial analysis of the groupings of related figures may be possible.

Among nearly 2000 petroglyphs there is only one bow and arrow figure, but about a hundred representations of atlatls (Lothson 1976:25). No rock paintings were reported by Lothson's 1976 survey report.

The bedrock is visually interesting for its distinctive red color, glacial striations, ripple marks (either from an ancient braided river or sea), and what Lothson describes as "curiously formed polygon figures produced by processes similar to those that formed the ripples" (Clause pers. com. 1995; Lothson 1976:6). The bedrock is estimated to be 3,300 to 9,900 feet thick and has been extensively studied by geologists (Southwick 1984).

The petroglyphs are on an exposed bedrock surface about 1000 feet long and 150 feet wide. A short distance to the west, Red rock ridge is elevated about three feet. This may have been a natural bison drive feature.

The bedrock slopes slightly and there may be an inherant stratigraphy with the oldest petroglyphs being lowest (Clause pers. com. 1995). The sod has noticeably grown back over some petroglyphs between 1971, when Lothson did his survey, and a recent visit to th site in 1995. Several hundred more petroglyphs are known to be on other adjacent outcrops (Lothson 1976:7). Neighboring farms and the rock under the sod also may have other petroglyphs (Ellig, Clouse pers. com.1995). The prairie next to the petroglyphs has never been plowed, because the bedrock is

close to the surface (Lothson 1976:6).

Petroglyphs have also been reportedly uncovered at the nearby quarry (Shane pers.com.1994). Three habitation sites were found nearby--the Bugger site and Callanan I and Callanan II (Lothson 1976:2,4-5). Other possible Archaic sites are 12 miles away (Id.).

By subject matter analysis, Lothson suggested two possible periods for the petroglyphs: (1) 3000 BC to 500 BC, based on the atlatls, and (2) 900 AD to 1750, AD based upon the motifs and symbols of the early historic period. The site is now a protected state historic site.

Nett Lake

The Nett Lake Petroglyph Site (21 KC 8) is located on the Nett Lake (Bois Forte) Reservation in Koochiching County in northern Minnesota, on an island listed as Spirit Island on U.S.G.S. maps, and sometimes known locally as Picture Island, or Drum Island ("Me-tig-wah-kick"). In 1926 Albert B. Reagan, the Nett Lake Indian Agent from 1909-1914, reported that it was also sometimes called "Drum Island" because "the polished rock area is hollow beneath; and, on walking over it, it gives out a hollow drum-like sound" (Reagan 1958).

In September, 1963, the National Geographic Society magazine published a photograph of the Nett Lake petroglyphs and since then in 1974 the site was entered in the National Register of Historic Places.

The petroglyphs are located on an igneous outcrop at the northwest corner of a wooded island. The island is approximately

400 feet long. The island is north of the picnic area in the Village of Nett Lake (George 1974).

The local oral history indicates that the petroglyphs were already there when the Ojibwa came into the area and they do not know their meaning (Reagan 1958). Some of the petroglyphs appear to have been repecked. Schoolcraft noted the difficulty of obtaining direct information on matters involving Ojibwa religion and the Midewiwin.

Whitley (1994), Lewis-Williams (1983), and Lewis-Williams and Loubser (1986) all have noted that the key to using ethnographic records in interpreting the rock art is to understand that informants are frequently using metaphor. Whitley points out that when rock art is described as being made by a "being" variously described as a "rock baby," "water baby," "mountain man," or "mountain dwarf," the reference is to the:

> . . . very powerful spirit helpers that a shaman obtained in an altered state of consciousness (ASC) vision quest. . . . Informants stated that the art was made by these supernatural beings because no semantic, linguistic, or epistemological distinction was made between the actions of a shaman, his dream helper, and his visionary ASC . . . To claim that the art was made by a rock baby was simply to metaphorically assert that it was the product of a shaman (Whitley 1994:82).

A similar description was repeatedly given to Dewdney (1967) by informants who told him that the little hairy faced "men of the Wilderness" or Maymaygwayshi made the rock art (Dewdney 1967:14). Once such a tradition gets started non-shamans may also see such beings while hallucinating from boredom, suggestion, fatigue, or withdrawal from alcohol (Dewdney 1967:14; Assad 1990:6; Heron 1958: 52,54,56).

Spirit Island is supposed to be the home of the "Ah ge jaks" who "keep the pictoglyphs freshly painted. They are small red warriors, covered entirely with hair except for their faces, and when full grown are only a foot high. Late in the evening and early in the morning, the legend states, they can be seen by certain people. . . . The "Ah ge jaks" are also known to steal fish from Indian nets and fur from their traps, according to the legend" (Savard 1970).

The stories told about the making of the Nett Lake petroglyphs also involve "half sea-lion and half fish" creatures, or in the modern version -"children" (Reagan 1958:9; Benner 1987:10).

Interestingly, one of the Ojibwa clan totems is also a "merman" or therianthrope. Although Reagan and others have interpreted the story of arriving at Nett Lake and pursuing someone or something as referring to pursuing the Dakota, it seems unlikely that Dakota hunters and raiders would have stopped to noisily carve hundreds of petroglyphs into an exposed outcrop on an island.

Lloyd A. Wilford (1953), University of Minnesota anthropology professor, in 1948 excavated a site (21 KC 21) in the current Village of Nett Lake about 1000 feet from Spirit Island with a number of students. Wilford's excavation at the Village of Nett Lake indicated "an earlier component of the Blackduck Focus of the Headwaters Lakes Aspect, and a still earlier component of the Laurel Focus of the Rainy River Aspect" (Wilford 1953:30). The Middle and Late Woodland culture spanned

the years from about 600 BC to 1600 AD. According to Wilford:

> The Nett Lake area was probably never Siouan territory. The Yanktonai Sioux are believed to have dwelt in the area of the headwaters of the Mississippi River just prior to the Chippewa immigration and were in 1750 being pushed westward by the southern Chippewa. The Sioux may have hunted and raided in the Nett Lake area, and it probably had been occupied by Cree or Assiniboine at times. The only group Verendreye located in the general area was the Monsoni at Rainy Lake, and the Monsoni were probably Cree. The Assiniboine had left the area before Verendrye's time and he reports them as living to the southwest of Lake Winnepeg and allied with the Cree and Monsony. The Chippewa occupation of Nett Lake was probably a peaceful one, as they were allies of the Cree and Assiniboine" (Wilford 1953:1-2).

Anthropologist Julius Lips was apparently told by his local guides in 1947 that the petroglyphs had emerged from the lake within the last two years (Lips 1947). Lips concluded that he had discovered them (Id). Monroe Killey diplomatically pointed out to Dr. Lips that he should have known better given the large trees on the island (Killey 1947).

This "discovery" episode may have a connection with the fact that there was great uproar and ill will generated locally during those years when the water level was raised and the wild rice harvest was harmed (Killey pers. com. 1995). There may also be more petroglyphs under the water.

Tobacco, clothing and food have been left near the carvings (Wellmann 1979:153; Reagan 1958). Monroe Killey recalls being expected to throw out two tins of Prince Albert tobacco by his guide when he visited the island in the 1930's and 1940's. Steinbring has slides from the 1960's, however, with littered shotgun shells from duck hunters. When Monroe Killey attempted to obtain the cooperation of an old acquaintance of 30 to 35 years

for this writer to visit the site, she hung up the telephone on him.

The igneous outcrop is reported by George (1974) to be granite and mica schists that were polished and striated by the glaciers that has weathered to a reddish-brown color. Peterson (1979) describes the outcrop as basalt.

The glyphs are reported to appear grey, were patinated, and range from about 10 cm to 1 meter in length, and from 1 to 3 mm. deep (George 1974). All of the petroglyphs are entoto style and include anthropomorphs, zoomorphs and geometric figures. The glyphs are described as jumbled and superimposed by Peterson (1979).

Estimates of the number of petroglyphs varies. Wellmann optimistically relates that: "This promising site with more than 500 petroglyphs is now being studied by members of the Minnesota Historical Society" (Wellmann 1979:153). Other estimates tend to be lower. Seldyn Dewdney drew about 130 of the petroglyphs and his drawings are in his field notes in the Royal Ontario Museum, Toronto (Steinbring 1990:179).

Several observers have commented on the similarity of the Nett Lake petroglyphs in northern Minnesota to those at Pipestone and the pictographs of the Quantico-Superior area (Lips 1947b; Steinbring 1990:179).

Mildred Savard (1970) reports that:

> In the treaty at Washington, April 7, 1866 providing this reservation, the name given to Nett Lake by the Ojibwas was spelled as As-sab-aco-na. Albert B. Reagan, who was the U.S. agent here in 1909-14, writes the traditional origin of this name, received as a myth of the Bois Fort medicine men. . . . By a census of 1909 the number of Bois Fort band

was 641. They called themselves Sugwaundagah Winniewug, meaning "Men of the thick fir woods" but the early French traders named them Bois Forts, or hardwood Indians (Savard 1970).

At least one other petroglyph site is also known in the county. The Manitou Petroglyph Site (21 KC 32) in Koochiching County is located at the apex of a point at Manitou Rapids and has zooform glyphs and script pecked into the rock face above the rapids reading " A Peacock" and "Ottowa" (Yourd 1988:1).

Shamanic roles, dress, and organization

As the Vastokas (1973) point out, shamans become manitou-like, if not a manitou themselves, and take on the characteristics and qualities of their guardian spirits (1973:36). Where an ordinary Algonkian hunter hoped for an animal, bird, or fish guardian, the shaman sought many such spirits, but also the cosmic manitous. The different kinds of shamans are described in detail in Hoffman (1891) including the Jessakids, Wabenos, and Medas. A Jessakid shaman who specialized in seeing into the future, using a "shaking tent," practiced alone, and without a group. "Blessed by the sun, they were directly assisted by the Turtle and Thunderbird manitous, of which they would have dreamed in their youth" (Vastoukas 1973:36).

The Wabenos, who also practiced alone, specialized in medicinal herbs, and potions for hunting and love magic, but also were feared as shamans who might use their powers to inflict harm (ibid:37).

The medas were highly organized into a hierarchical society

and a debate exists as to how old the Midewiwin actually are, and whether or not they were a post-contact reaction to contact with western organized religion (Vastoukas 1973:46).

A Midewiwin birch bark scroll was found in a cave at Burntside Lake in Quetico Provincial Park, Ontario, near the Minnesota border, that was radiocarbon dated at A.D. 1560 +/- 70 which Kidd (1981:41) suggests makes a strong case for a precontact Midewiwin (Rajnovich 1989:183).

In Minnesota, there were eight successive grades of curing and initiation at the Nett Lake Midewiwin rather than the four generally described in Hoffman (1891). Few got to the last grades because of the cost of initiation and the belief that these grades were "considered psychically dangerous to the individual shaman" (Vastoukas 1973:37). The Midewiwin with its connection to water spirits (associated with curing), Nanaboujou, the Horned Serpent, Shell and his assitant Bear, may also be a more recent organized development in a much older, more individualistic shamanic tradition.

As the Vastoukas (1973) point out: "If, indeed, the Midewiwin is a specialized development out of the more widespread practices and beliefs of Algonkian shamanism, then so would be the Mide bark scrolls used in the rituals of this society also be a specialized iconographic system that evolved from a less hieratically classified Algonkian pictography" (ibid.:46). The birch bark scrolls then should not be viewed as providing an exact narrative translation of the petroglyphs, but are of value in providing comparative data for an understanding of the

iconographic significance of specific images that appear repeatedly, and have their origin in the same concepts of manitous, guardian spirits, and shamanistic practices (ibid:46-47). The Vastoukas have concluded that the Peterborough Petroglyph site was part of the general sphere of Algonkian shamanistic belief and was "the focus and record of the visionary experiences of individual Algonkian shamans" (ibid.:47).

The proper use of the birch bark scrolls of the Midewiwin then, is not as an exact captioning of the rock art. Birch bark scrolls are mnemonic and ideographic, not phonemic (Vastoukas 1973:43). Because of this, as Landes has pointed out, the birch bark scrolls are not "the Rosetta Stone" of the rock art nor an exact dictionary of meanings (Vastoukas 1973:43). The recurrent pictographic images, motifs, and patterns however did have a component that was generally understood and were common figurative signs (Id.).

In general terms, the Ojibwa pictography termed "Kekeewin" could be "incised upon birch bark scrolls as memory aids in the singing of Mide songs, as heraldic devices identifying clan affiliation or representing personal totems carved on the trunks of trees, as images placed on gravemarkers, and as glyphs pecked out or painted on rocks or boulders" (Id.). These were generally known and understood. "Kekeenowin" on the other hand "are shamanistic renderings of visionary experiences" and were more symbolic, secret, and sacred rather than secular. "Muzzinabikon," or rock writing, most often recorded "the visionary experiences

of Ojibway shamans (Vastoukas 1973:44). The history recorded was the event of their visionary experiences. The rock art was an "historical" record of an ancient "seer" shaman's visionary experiences.

Schoolcraft had an Ojibwa Meda informant tell him after the shaman was shown petroglyphs from New England, that the images were one of the ancient seers records." (Ibid: 457) Thus, the Vastoukas infer that although some pictographs on rock are of a "strictly secular significance like clan totems by hunters and fishermen to mark game trails and water routes," others "were sacred and powerful spirit-images, generally restricted to the recording of shamanistic visions" (Vastoukas 1973:45). Some of these pictorial images are common to both and some are unique (Id.). The turtle may be a good example of the former and the horned and heartlined anthropomorph, the attenuated figure, and the foot with an extra digit, for the latter.

The Vastokas postulate that where secular pictographs tend to be representational, naturalistic and readily identifiable, the more esoteric shamanistic images tend to be symbolic and frequently abstract (Vastoukas 1973:45). Such a stylistic distinction may be erroneous, however, if individualistic names are obtained in ASC and shamans are representationally portraying their animal spirits.

The Vastoukas also venture the speculation that because rock art takes longer to make, perhaps it was only for the recording of visions. Wellmann, however, describes a report to Mallery (1893) that would indicate that even secular marks were cut into

rock:

> With regard to the Odanah petroglyphs near Asland, Wisconsin (now destroyed), Mallery (1893: 126) related: "An old Ojibwa Indian in the vicinity told the present writer that the site of the rock was formerly a well-known halting place and rendevous, and that on arrival of a party, or even of a single individual, the appropriate totemic marks were cut on the rock, much as white men register their names at a hotel." This explanation does probably not account for most other Wisconsin petroglyphs which are in relatively inaccessible places (Ritzenthaler, 1950). However it may apply to the Pipestone site . . . (Wellmann 1979:153).

Heartlines, Hunting Magic, and Ojibwa Hallucinogens

Huron H. Smith (1923) in his book length work on "Ethnobotany of the Ojibwe Indians" provides an account that gives a different view of what a heartline represents to the Ojibwa (cf. Grant 1983:53;Mallery 1893:773) and actually appears to support the old idea of "hunting magic" as undertaken by evil shamans. Unfortunately Smith does not identify the source or sources of this account of "renegade" medicine shamanism.

> The Ojibwe also believe that the medicine man can make bad medicine as well as good, and can prescribe certain medicines from his medicine bundle that will enable him to get the better of his enemies. They had many hunting charms which were supposed to help them get game. The hunter in using these would often trace the outline of the desired game upon the ground drawing a line to its heart. He would then pierce the heart with the line and put the proper medicine on the heart puncture indicated. A similar procedure might be followed against human enemies. Such practices were always kept a deep secret, becoming valueless should anyone see the perpetrator making the figure. They were likewise deprecated and resented by the tribe and punishment was apt to follow anyone caught in such a practice, which all agreed was a perversion of the grand medicine society teachings (Smith 1932:350).

Densmore (1979) has a similar account, but in both cases the figure is scratched in the ground, not carved into rock. Making a petroglyph is a noisy undertaking and is presumably not a

surreptitious matter.

Interpretation

Establishing that most rock art had its origins in shamanism and ASCs is only a first step in interpreting the petroglyphs. Individual symbols are identifiable as to subject matter without necessarily understanding their entire personal significance to the individual.

The upraised arms, zigzag and emerging figure.

At Nett Lake there is a figure with upraised arms, three outstretched fingers, an object hanging from one hand , and bent legs. Positioned below it and rotated 90 degrees is an anthropomorphic stick figure with part of one arm, another arm and one leg. These figures are connected by a zigzag that Monroe Killey recalls as being superimposed upon the other two figures (Killey pers. com. 1995). These figures are bright, unpatinated, and look recently pecked (or were difficult to see and were repecked).

Steinbring has called this a possible "birth scene"-even though the second figure is about the same size as the first figure, the "baby" only has half of an arm on one side and one leg and the "umbilical cord" is attached to the hip and not the belly (Steinbring 1990:179). Julius Lips' September 28, 1947 Minneapolis Tribune article in the rotogravure section, captioned the photos of these petroglyphs as a figure appearing to be holding a "war club." If it was a depiction of a "war club" why was it held down and not up, where is the head of the war club (Algonkian and Dakota war clubs were not simple sticks) and why

is there a zig zag connecting the two figures? Clubbing the "baby" idea with the war club for a moment, let us turn to the ethnography.

The anthropmorph with upraised arms is a common symbol on birch bark scrolls that indicates a shaman holding a Mide' sack made from a snake, otter, mink, weasel, etc. (Hoffman 1891:185, 186-187,220,272,293;). The zigzag (an entoptic or form constant) is a commonly used symbol in the birch bark scrolls used to represent such things as the gaining of medicine or power, being set free from the disturbing influences of evil manidos, the curing of a patient by a shaman, etc. (Hoffman 1891:203,219,233,248,255). In this case the zigzag was both superimposed and connects the figure with upraised arms to the second figure. The bent legs are a reference to a Midiwiwin dance posture and possibly the trembling legs experienced in ASC (Reagan 1958; Whitley 1992:104: Winchell 1911:609).

The second rotated figure is a common shamanistic symbol that probably represents half emergence from the underground. Sometimes, as on a medicine tom tom, the figure is represented as half emerged from the waist up (Winchell 1911:609610). More often however, the figure, as it is here, is represented with one leg out of the ground and half of one arm still in the ground. The experience of going into and out of the rock is part of gaining power or medical knowledge from the underground spirit associated with curing (Rajnovich 1989:184-187). Attached to this paper as Appendix A are 7 ethnographic accounts from Saskatchewan, Manitoba, and Ontario illustrating the connection

between shamans and the creation of rock art. The shamans believed that they entered the rock to talk to the "rock people" regarding which medicine would cure the patient.

The upright arms of the first figure is a common symbol in the far west for representing the shaman "dance" posture during ceremonies and supernatural performances (Whitley 1992:104). As Whitley has indicated for western rock art sites:

> . . . by assuming this posture the shaman revealed his wrist and exposed it to the sun. As noted above, the wrist was believed to be the 'seat' of his supernatural power; during shamanistic performances the wrist was exposed to the sun in order to imbue it (and the shaman) with supernatural power. And, because shamans often went into trance during these ritual performances, this dance posture was the prelude to entering altered states of consciousness. In this sense, these anthropomorphic depictions can be interpreted as symbolizing one form of the shaman's connection to the supernatural world, and one means by which he bolstered his personal power prior to entering an altered state of consciousness (Id.).

Considering that about 1000 feet away from the rock art site was an Ojibwa community with an active Midewiwin, and that Albert B. Reagan described the rock art as "human beings, dance scenes, and outlines of the animal gods worshipped by the men who made the pictures" there is little doubt that Reagan was familiar with this "dance" posture from the Midewiwin ceremonies and that Whitley's description is correct (Reagan 1958:8). If they are accurately represented, the three fingers (there may be more fingers) may be a reference to Nanaboujou, who brought technology, medicine, and the Midewiwin to the Ojibway (Hoffman 1891:175). Nanaboujou has been represented on a Minnesota birch bark scroll with three lines coming from his head and was considered the founder of the Midiwiwin (Hoffman 1891:185;

Vastoukas 1979:73). Like a modern gang hand symbol it would be interesting to learn if the Midiwiwin dance postures included a hand held with three upright fingers as a symbol of Nanaboujou. Nanaboujou instructed the Otter in the mysteries of the Midewiwin and gave him the rattle, drum and tobacco (Hoffman 1911:166). "The place where Mi'nabo'zho descended was an island in the middle of a large body of water, and the Mide' who is feared by all the others is called Mini'sino'shkwe (He-who- lives-on-the-island)" (Id.).

The Vastoukas in interpreting the Algonkian Petrborough site also reached the same conclusions about the upraised arm figures representing shamans (Vastoukas 1973:65-71). In the section just before it they explicate the sun symbolism at the Peterborough site (Vastoukas 1973:55-65). At the Jeffers site Lothson reported eighteen stickmen with raised hands (Lothson 1976:24).

The medicine bag.

The medicine bag and its importance to Native Americans, and especially its connection to levels of initiation to the Midiwiwin was widely reported in books, articles, and paintings (Ewers 1979:57; Hoffman 1891:220; Densmore 1979:93; Catlin 1844:35-38). Every member of the Midewiwin had a medicine bag made from the whole skin of a bird, reptile, or animal and it was one of the most valued personal possessions and went into the grave with the owner (Densmore 1979:93). In the bag was carried his or her medicine, including tobacco, herbs, and charms such as the migis shell. Medicine or spirit power was "shot" into an initiate or a sick person with the medicine bag (Hoffman

1891:192; Densmore 1979:87-88). One of the petroglyphs may be an otter, mink, or weasal medicine bag. There is also the possibility that it is a fish i.e. a northern pike that is identifiable by the fins and is distinguishable from the petroglyphs of medicine bags.

The Horned Serpent.

The Horned Serpent is a common Ojibwa spiritual being connected to curing, medicine, and mythology. The Vastoukas have a whole section on their meaning in rock art (Vastoukas 1973:94-103). This was a powerful underground manitou that was the guardian spirit of many Indians and liked to reside in rocks near water (ibid.:95).The fact that the spirit being is in the mythology does not necessarily mean that this is not a recording of a specific Ojibwa shaman's experience of an ASC. There is in fact, an ethnographic account exactly describing such a shaman's curing vision in which he turned into a snake with horns and cured people from an illness (Densmore 1979:181-182). Similar to the Cheyenne vision quest in water, he lay half in and half out of a river (Id.). The snake is represented with a zigzag.

At the Jeffers site Lothson reported finding forteen snakes, one rattlesnake with bison horns, and 1 lizard or salamander with bison horns (Lothson 1976:27).

Thunderbirds

The thunderbird is one of the most well known of the Native American spirit beings. The Algonkians described the thunderbird as capable of transformation into a man, able to cause lightning,

thunder and wind, and the nemesis of the Great Horned Serpent of the underworld (Vastoukas 1973:91). The thunderbird has been found throughout Canada and the United Staes (ibid:92-93). Steinbring reported finding thunderbird-like petroglyphs at the Mud Portage site, at Clearwater Bay, Lake-of-the-Woods, Ontario with a "guarded assignment of 5000 B.C." (Steinbring 1990:168). Steinbring indicates that:

> Some of these figures are of animals like humans, turtles, bison, and other quadrupeds; some represent objects like harpoons, atl-atl weights, or more problematic items. Besides these naturalistic forms, there are representational images of thunderbird-like figures, and a series of forms which appear to reflect seriation between naturalistic humans, through thunderbirds, to abstract forms" (ibid.:168).

For a vivid description of the details of a vision quest and the way that this spirit being was perceived by a Dakota shaman, Black Elk's account would be difficult to surpass (DeMallie 1984:227-232). Black Elk describes his fear of being killed by hail during the Thunder-being vision quest and describes both his preparations for the quest, physical states, and his interaction with, and vision of, the Thunder-being nation (DeMallie 1984:227-232).

At the Jeffers site, Lothson counted 50 "stylized thunderbirds", 47 more "thunderbirds", 16 "birds in flight," 4 "thunderbirds with bison-horn headdess," and 1 thunderbird with a "lifeline heart" (Lothson 1976:26).

Horned headdress.

The horned animal seen in a dream would sometimes be mimicked in real life by wearing a cap with horns that would

increase the shaman's power. One shaman told Densmore he "once wore it almost constantly during an entire winter, wearing it while in the house" (Densmore 1979:85). The Vastoukas in an interesting analysis suggest that the Jessakkid shamans, who practiced necromancy, tended to be represented by "rayed or orbed" heads (ibid.:37). Schoolcraft noted that "horns denote either a spirit or a Wabeno filled with a spirit" (Vastoukas 1973:75). The Wabenos, were shamans who practiced alone and specialized in medicinal herbs, powders, potions in hunting and love, and who were feared for sometimes engaging in evil shamanistic practices (Vastoukas 1973:37, 75-76).

> According to Mallery, who cites an Ojibwa from Red Lake, Minnesota, a horned figure incised on an early nineteenth century bark record represents "a man who held a position of some consequence in his tribe, as is indicated by the horns, marks used by the Ojibwa among themselves for shamans, Wabeno, etc." . . . Schoolcraft illustrates a similar figure and also identifies it as a Wabeno or a tutelary spirit who is addressed for aid, noting in this instance that "horns denote either a spirit or a Wabeno filled with a spirit (Vastoukas 1973:75).

At Jeffers, Lothson counted 38 stickmen with bison-horn headdress, and 2 stickmen with ring feet and bison-horn headdress (Lothson 1976:24).

Dogs.

Catlin noted that the dog feast was a "religious" event and dog images were carved into rocks as a symbol of fidelity (Catlin 1844:230). Dogs were also offerings to the underground spirit that caused illness and were drowned in lakes with tobacco as an offering (Copway 1851). Lothson categorized 6 figures as "wolves or dogs" at Jeffers (Lothson 1976:27).

Two headed animals.

The two headed animal is one of the fantastical animals

predicted by the neuropsychological model and exactly such an animal appears at Nett Lake (Whitley 1994:12).

Turtles.

Turtles are both spirit beings and totems, and appear at Jeffers and Pipestone, sometimes with horns and sometimes without (Winchell 1911:602-605). The Vastoukas reported many turtle petroglyphs at the Peterborough site and noted their significance:

> The Turtle is a particularly sacred creature and an important Algonkian manitou, still regarded with reverence among southern Ontario Ojibwa today. . . .The significance attached by the Algonkians to the turtle was documented by Jesuit missionaries as early as the seventeenth century. Schoolcraft also wrote that the turtle, "held in great respect in all Indian reminiscence, . . . is believed to be, in all cases, a symbol of the earth, and addressed as mother." That the turtle may in fact be symbolic of the earth, seen as a womb, is given further support by the numerous references in Algonkian lore to the turtle both as a symbol of fertility and a symbol of the earth itself. Among the Ojibwa in the vicinity of Manitoulin Island, in fact, a large rock shaped like a turtle was held sacred by local inhabitants who would leave offerings of tobacco in its vicinity (Vastoukas 1973:107).

The turtle that so often shows up at Minnesota rock art sites was also found on an Ojibwa war drum illustrated in Densmore (1911:plate 7) with the following explanation by the owner through an interpreter:

> There was a man who invented the use of the drum among the Indians. The lightning is a picture of his dream, and the sound of his drum was like the rumble of the thunder. When We'nabo'jo was wandering around he always sent Mici'ken ("large turtle") on his errands; so the large turtle came to be considered a great warrior. When Mici'ken went to war he had Miskwa'des (small snapping turtle") as his oc'kabe'wis (messenger). That is why the picture of the lightning and the turtle is on the war drum. The Indians fought with bows and arrows, so a picture of a bow and arrow is also on the drum (Densmore 1911:62).

At Jeffers, Lothson counted 10 "turtles," and 2 more turtles that had "bison horns" (Lothson 1976:27).

"Rabbit eared" anthrpomorphs.

The Vastoukas have a section explaining these as shamans (Vastoukas 1973:72-75) and they may be a symbolic reference to Nanaboujou or his brothers and "The Great Hare" (ibid:74). A similar petroglyph appears at Jeffers (Lothson 1976:18). Wavy lines going up from the head "denote superior power" (Hoffman 1891:223).

Circles as Drums and "Drum Island"

— Jeffers has petroglyphs of plain circles which may refer to the medicine drum, important to shamanic curing (Winchell 1911:610-611; Lothson 1976:16). As previously mentioned Drum Island got its name from the fact that it sounded like a drum when walking across the petroglyphs (Reagan 1958). Jeffers has anthrpomorphs with horns, walking on circled feet or drum symbols (Lothson 1976:20). Images painted on shamans medicine tom toms were of guardian spirits (Vastoukas 1973:75). The drum was used by a Wabeno during an incantation to call a spirit or "invoke the assistance of his manido" (Hoffman 1891).

Lothson reported 12 stickmen with ring feet and 2 more stickmen with both ring feet and bison-horn headdress (Lothson 1976:24).

Buffalo hoofprints and Buffalo Women.

Linea Sundstrom (1995) has undertaken an interesting and detailed analysis of the relationship between the bison hoof-print petroglyph and the symbolism of Dakota "buffalo women." This symbolism may be related to puberty and women's power. There were 23 bison hoofprint petroglyphs reported at

Jeffers (Lothson 1976:27).

Attenuated bodies and polymelia.

The Jeffers site has many examples of attenuated bodies and polymelia. Station 18 and 19 have at least eight attenuated figures. Station 8 has at least one. Polymelia appears on human feet at Station 21 and Station 7 (Lothson 1976).

Atlatls, Tanged Points, and Lunates.

Lothson (1976) and Steinbring (1990) make a convincing case that the atlatl petroglyphs can be used to date at least some of the site to the Archaic period and that tanged projectile points are probable representations from the "Old Copper Age." The lunate forms are still something of a mystery and may represent a nonfunctional Old Copper Age "banner" as Steinbring hypothesizes or something else (Steinbring 1995).

Grids or rabbit nets?

There is a gridlike representation at Station 7 at Jeffers (Lothson 1976: 12).

Speared anthropomorhs

Lothson reported 4 stickmen with a spear in the body (Lothson 1976:24). At least one of these appears to be an attenuated anthropomorph at Station 19 (Lothson 1976:17).

Hands

Dewdney was told by a native of Rainy Lake that the Maymaygwayshi or little "Men of the wilderness" who live in rock left the handprints left on the rock there (Dewdney and Kidd 1967:14). Dewdney was ~~apparently~~ repeatedly told this in response to asking living Ojibwa about who made the rock art (Dewdney and

Kidd 1967:22; Dewdney 1970).

Entoptic forms

Lothson tabulated 603 geometrical and unidentified glyphs. These were 40.49% of the total petroglyphs sampled. The site has figures that might be viewed as a grid, dots and rows of dots (123), straight lines (135), zigzags, curved lines (95), lunates (25), and whirlwinds (3) (Lothson 1976:28).

Conclusion

Not all Minnesota rock art is ancient. In fact, some of the most interesting petroglyphs are from the historic period. A two-pronged research approach towards Minnesota rock art involving, (1) a review of local ethnohistoric sources, and (2) evaluation of the applicability of a neuropsychological model and a growing corpus of interdisciplinary information regarding entoptic and somatic experiences while in altered states of consciousness, indicates that much of Minnesota rock art involves represention of dream symbols, shamans, and visual and somatic experiences while in altered states of consciousness. The rock art appears ultimately to reflect old and widespread concepts regarding manidos, guardian spirits, shamanistic practice and Native American naming practices.

Assessment of the neuropsychological model indicates that although entoptic motifs and principles may be identifiable in the rock art, the neuropsychological model's greatest explanatory power locally is in the interpretation of rock art depicting aspects of somatic hallucinations hitherto unnoticed or ignored that are depicted in a directly representational way, such as

attenuation, polymelia, somatic transformation, sexual excitation, emergence, etc.

A methodological emphasis on reexamining local ethnography, with an understanding of the use of metaphor, and application of the neuropsychological model as a general theoretical framework provides an explanation of more, and varied, data than competing hypotheses. As a working theoretical framework, the neuropsychological model has provided a means to say more about Minnesota rock art than was possible before, and generates new insights. In assessing the model's utility, the model has explanatory power for previously baffling images. The medical, anthropological, and ethnographic grounding of the model provides a distinctly different perspective and dialectically challenges competing hypotheses that fail to incorporate existing, relevant, and available medical and ethnographic data.

Appendix A

Ethnographic evidence that rock art was made by shamans in Saskatchewan, Manitoba, and Ontario.

Grace Rajnovich (1989) has cited several ethnographic accounts from Saskatchewan, Manitoba, and Ontario that provide evidence that rock art was made by shamans in a quest for medicine and dreams.

Number 1:

> . . . one account told to to C.J. Wheeler (n.d.) in Manitoba is crucial to our understanding of the milieu of the pictographs.
>
> Wheeler's informant tells us that a woman of Oxford House was very sick. The woman's family asked an old man named Mistoos Muskego to cure her, and he tried many things but they didn't work. Finally the old man said the only hope was to go and ask the "men who lived in the rock" (n.d.:2) for powerful medicines. He canoed to a specific cliff face and used his power to enter the rock, to the home of the men who lived there. He talked for a long time with the men and was finally given the medicine which eventually cured the woman. The old man said that everyone should remember the men in the rock, so he took the people back to the cliff face and, in their presence, drew a picture of the men in the rock. He then drew a stick figure with lines running from the head giving a rabbit-eared look (Wheeler n.d.:2-3) (Rajnovich 1989:484-485).

Number 2:

> Another responsibility I felt, along with a natural curiosity, was to learn what I could about current Indian knowledge--if any--about the origin or meaning of the rock paintings.
>
> It soon became clear that no living Indian knew who made the paintings, when they were made, or what they signified. There were only the vaguest echoes of any tradition about them; most of the little I could glean was hearsay or conjecture.
>
> It was otherwise, however, when I began to inquire about associations with the waterside rocks on which the paintings appeared. Years ago a veteran prospector, Jack Ennis, whom I had met on a bush sketching trip and stayed with a while, told me stories he had heard from the Indians of hairy-faced men who paddled their canoes into the crevices of the rocks along the north Superior shores. Jack cited these stories as evidence that the Vikings had been in the area. But it is clear to me now that he had run into the little-heeded belief in the May-may-gway-shi.

The word is variously translated into English. Among the Cree, where these mysterious creatures are described as little men only two or three feet high living inside the rock, the English is "fairy." Among the Ojibwa various translations run from "ghost," "spirit," and "merman," even to "monkey." When I consulted Canon Sanderson (who was born a Cree but has spent all his ministerial life among the Saulteaux and Ojibwa) for a literal translation, he said the first two syllables mean "wonderful," but he had no clue to the others. The best rendering in English I could hazard from the scores of descriptions I have listened to would be "Rockmedicine Man."

Authorities disagree on details, but some features of the Maymaygwayshi are common over wide areas. They are said to live behind waterside rock faces, especially those where cracks or shallow caves suggest an entrance. They are fond of fish, frequently--more out of mischief than need--steal fish from Indian nets. Since they cut the fish out of the net instead of removing them normally the Indians get annoyed. Frequently one is told of Indians, determined to put an end to this, who visit their nets in the gray of early dawn to vcatch the Maymaygwayshi in the act. The Maymaygwayshi, heading for the home cliff, are obliged to pass close to the Indians. As they approach they put their heads down in the bottom of the canoe. Why? Because they are ashamed of their faces. In the south and the east this is because their faces are covered with fur or hair--"like a monkey" one Nipigon Indian told me, holding his two hands up so finger and thumb encircled each eye. In the north and west there is no facial hair, the shame being due to lack of a soft part of their nose.

Specially gifted Ojibwa shamans, I was told, had the power to enter the rock and exchange tobacco for an extremely potent "rock medicine." Many Indians to this day leave tobacco gifts on the ledges or in the water as they pass certain rocks-"for good luck," they usually explain.

Direct connections between the rock paintings and the Maymaygwayshi are much harder to come by. To date I have only a scattering of comments with few confirmations. A Deer Lake Indian told me, for instance, that a rock painting of a man with his arms held like this (and he held his own in a loose "surrender" position) signified a Maymaygwayshi. Another on Rainy Lake told me that the Maymaygwayshi reached their hands out of the water to leave the red handprints on the rock. And it is still practice on Lake-of-the-Woods to leave offerings of clothing, tobacco, and "prayer-sticks" on the rocks at the foot of a pictograph-decorated face. . . .

Thunderbirds and snakes increase in proportion as one moves from southeast to northwest, roughly correlating, in the case of snakes, with the decreasing incidence in the same direction of poisonous snakes, with the decreasing incidence in the same direction of poisonous species. Renderings of bison appear as one nears the prairies. Although the bush people were known to have made bison-hunting forays into the prairies, I doubt whether hunting magic was a motive for the paintings. A more promising lead was provided by two birchbarck Miday scrolls

that I recorded recently just west of Lake of the Woods. Their owner interpreted drawings of bison on these as guardians--along with the powerful Mishipizhiw--of the higher orders of the Midaywiwin, because it was "mighty on the prairies."

Indeed, most of the evidence suggests that the rock paintings represented dreams, and were intended to enhance their efficacy. "That's what they dreamed of, the ones that drawed," Johnny Loon told me as we sat on the rocks near his drying fishnets, just across from the Post at Grassy Narrows on the Winnipeg River. Francis Tom at Sioux Narrows was equally positive. "A lot of those guys they done some fasting where they have those paintings . . . whatever you see on the paintings that's what they seen in their dreams. I hear this from my grandfather and dad and others, too. That's why I put tobacco there." I should add, however, that for every informant that tells me the dreamer made the paintings, another turns up who is sure the Maymaygwayshi were the artists. . . .

About three miles southeast of Sioux Narrows Post Office, facing west at the northern end of a bulky outcrop of granite is Site #28. . . . I recorded this site in the summer of '58. Two years later, on the way to greener fields with Bill Fadden, I stopped off as we passed it to take further photographs. In the interval since my last visit someone had placed some clothing, a bundle of sticks, and tobacco on the rocks at the base. The sticks were thunb-thick, peeled, and daubed with red and blue paint. What could it mean?

While I was out west, Bill made enquiries of the local Ojibwa and was told that these bundles were placed on the rocks with clothing and tobacco when someone was sick, different colors being placed on the sticks for different illnesses.

We found similar "prayer-sticks" on three other Whitefish Bay sites and nowhere else. Are these a survival of an ancient practice, or the result of a recent cult among the quite numerous non-Christian Indians of the area? So far as I know no other instances of this practice have been observed. In Shoal Lake, where Presbyterian Christianity is dominant, only one Indian had heard of the practice, and seemed not too well informed about its significance. Much remains to be learned here.

If I had had any doubts about the connection betwen the pictographs and the offerings, they were resolved at the three other sites. In the Devil's Bay site, the Annie Island site, and the one just south of Devil's Bay, the offerings were always directly below the pictographs, as here.

Bill Fadden had also been told that there were always just forty prayer-sticks. In the two sites where the bundle was intact this was true; in the others the binding string had rotted and some of the sticks had floated away in the water. Bill also remembered seeing an old Indian in a bark canoe with his family many years ago flinging water with his paddle on the rock at the Devil's Hole and talking loudly, as if to an unseen person.

The site on the northeast point of Hayter Peninsula had a

different kind of surprise to offer . . . Here there were no prayer-sticks; but an old china cup and other odds and ends were visible in a horizontal crack nearby. . . .

The Devil's Hole is no more than a deep, almost horizontal fissure, averaging about five inches in width, in the granite outcrop just north of Devil's Bay on the west shore of the southern arm of Whitefish. . . .In the fissure I ought to add, which goes farther back than the eye can see, are traces of offerings, fragments of chinaware, and so on. . . .

Overleaf the "Bloodvein Shaman" is illustrated. I so dubbed it following winter after going through all the Ojibwa birch bark drawings I could find recorded in the literature. Frequently in the scroll pictographs zig-zag lines like those emerging from the head of this figure are interpreted as thoughts or magical power entering, or emanating from, the person's eyes, ears, mouth, or head. Again in a number of Miday scrolls the Miday priest is shown holding the otter-skin or other medicine bag from which he and his fellow Midaywiwin "shoot" power into initiates. (Dewdney and Kidd 1967:12-13, 22, 48-54, 61-62).

Number 3:

A much earlier account of the Lac La Ronge, Saskatchewan, Cree, by George Nelson in the 1820's describes the abode of the Medicine Manitou in a similar fashion (Brown and Brightman 1988:55). His home is in a mountain and his house has six doors. They are "so mysteriously constructed that no soul whatever, besides himself and his inmates, of whom there are a great number (of every nation and language) can open them" (1988:55). Inside the mountain are all the medicines derived from mineral, while outside are 40 rivers flowing into a lake situated beside the mountain. The rivers and mountainside contain all botanical medicines. When the medicine man is favored, "he appears first at these rivers, when the head or chief of the mountain comes out, " and after some friendly conversation, takes the medicine man inside the mountain (Brown and Brightman 1988:56).

Nelson was told that the journey of the shamans inside the mountain is through dreaming after fasting and "keeping their minds as free as possible from any other thought whatever" (Brown and Brightman 1988:58). . . .

The account by George Nelson in 1821 reports that the Lac La Ronge Cree in those days saw the Medicine Manitou and the maymaygwashi as separate entities (Brown and Brightman 1988:37). Nelson does not name the Medicine Manitou, although elsewhere he states that the Manitou who gave medicine and their accompanying ceremonies and songs to the people was Weesakejock (1988:38). It appears that contemporary mythology may have integrated the two earlier inhabitants of rocky cliffs-the Maymaygwayshi and the Medicine Manitou--into one mythological character, with the mischievous Maymaygwayshi taking on the role of Medicine provider (Rajnovich 1989:185-186).

Number 4:

Walter Red Sky of the Shoal Lake, Ontario, (personal communication) connects both the Maymaygwayshi and Kitche Manitou with the rock paintings. He identified the upraised-arm figure on the pictographs as "rock people," and and upside-down figure of the same as "a rock man the way he appeared in the vision." Mr. Red Sky interpreted some of the rock paintings as "visions of the rock people, always with their arms raised; the handprint is where the rock man closed the door when he came out of the rock." But he interpreted an animal in a pictograph at Whitefish Bay on Lake of the Woods as "the form the Great Spirit took in the vision." He added that a person cannot normally meet the "the Great Spirit"; one has to fast first for four days. "If you have no vision, then another eight days, then 12 and so on" (Rajnovich 1989: 185-186).

Number 5:

Kohl in 1855 also observed what may be an early stratum of belief among the Ojibway of Lake Superior. He reports (1945:415) that Nanabojou-- the Ojibway counterpart of Weesakejock--was never named in the religious ceremonies although he was known as the restorer of the world, the legislator, the source of all social institutions, and the giver of the medicine dance (see also Johnston 1976:17). "And yet, all along Lake Superior, you cannot come to any strangely formed rock, or other remarkable production of nature without hearing some story of Nanabojou connected with it" (1985:415).

In the case of pictography, it is clear that it is the cliff face itself that is sacred, not just the painting. This is reflected in the several pictographs in the Shield that consist entirely of red ochre "was," with no actual morphs portrayed. Mrs. Seymour (personal communication) has said that the "wash" denotes special spirituality of the site.

The role of Nanabojou as the primary giver of medicine is retained in the Midewiwin where Maymaygwayshi plays no part. In the accounts of the Midewiwin, Nanabojou is the foremost messenger, or servant, of Kitche Manitou, and he first brought medicine to the people at Kitchie Manitou's bidding (Hoffman 1891:172-177; Johnston 1982:96). He was aided by Otter and Bear (1891:166-167), two Manitous who figure prominently in the rituals of the Midewiwin (Rajnovich 1989:186).

Number 6:

Among the Agawa, the cliff faces are called "cut rock" and are "powerful places where the earth's energies are exposed" (Conways 1990:11). (cited in Stone 1995:4).

Number 7:

Figure 3 is a birchbark song scroll from White Earth,

Minnesota, relating the origins of the Midewiwin (1891:185) Hoffman was told that, at left, is Nanabojou holding the sacred otter Mide bag, or Pinjigusan. . . . and last is the Dog, given by the Mide Manitous to Nanabojou as a companion, or by Nanabojou to the people (1891:185).

Kohl (1985:60) reports that, among the Ojibway of northern Minnesota in 1855, the Dog was important. An informant told him "the dog is our dearest and most useful animal," and it is used as a special sacrifice to the Manitous because "it is almost like sacrificing ourselves." Thor Conway (1978) has discussed the dog morphs on the pictographs, combined with upraised-arm humans associated with pelts (for example, see figures 5 and 6), and he has suggested that they are a recognition on rock of the star constellation Orion and Canis Major, seen in European mythology as the hunter with his bow or pelt and his dog companion. The scroll recorded by Hoffman suggets that the pictograph group and star group are Nanabojou with his otter medicine bag and his dog companion (Rajnovich 1989:187).