THE MILKY WAY AS THE PATH TO THE OTHERWORLD: A COMPARISON OF PRE-COLUMBIAN NEW WORLD CULTURES

Edwin L. Barnhart
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INTRODUCTION

The recently defined discipline of Archaeoastronomy has drawn attention to how Pre-Columbian New World peoples viewed the night sky. Countless studies now exist on the importance of sky watching to Native American life. Like their European counterparts, early man in the New World had many myths about the planets, the stars and the universe. Indigenous built structures from Chile to Alaska have been demonstrated to be observatories and models of the universe in miniature. The application of archaeoastronomy to the studies of New World cultures has greatly aided in the understanding of the customs of those groups. Cross-cultural comparison using archaeoastronomy has proven more difficult and few attempts in the literature exist. The 1990 National Geographic article entitled "America's Ancient Skywatchers", by John Carlson, is one notable exception. The article compares the cosmologies of four New World cultures, the Inca, Maya, Aztec and Navajo, and demonstrates that each believe in a three planed universe; the earth plus an upper and under world. This paper is a comparison of the role of the largest of all sky phenomena, the Milky Way, as seen from the perspectives of eleven New World cultures. The following culture groups will be discussed; Inca, Tukano, Maya, Aztec, Apache, Pawnee, Cheyenne, Sioux, Shoshone, Seneca and Kwakiutl (Figure 1).

This group of cultures was picked for a number of reasons. First, the group is meant to be a representative sample of the three New World areas, North, Central and South. Second, there are many ethnographies of New World cultures but few breach the topic of sky watching. Fewer still speak of the Milky Way. Many cultures are now vanished from the earth or changed to such a degree as to retain little of their Pre-Columbian customs. For those people, early ethnographies are the only source left which records their customs and beliefs. Thus, the cultures included in this study were also chosen due to the quality of ethnographic information regarding them. There are countless other culture groups that should be included here but cannot due to lack of surviving information. Unfortunately, information concerning the Milky Way cannot be found for every New World culture. This should not be construed as a lack of beliefs regarding the Milky Way. The examples given in this paper are simply the beliefs that have made their way into the written record.

Each group discussed has their own myths regarding the creation and character of the Milky Way. They involve local animals and geography. The Milky Way is spoken of in terms of metaphors that have special meaning to each individual culture. However, if one looks beyond the metaphors, to the meaning and function of the Milky Way in those same cultures, continuity emerges. Each of the cultures discussed here regard the Milky Way

as the Path to the otherworld, traveled by spirits, deities and shamans in trance. The following compilation of ethnographic information will demonstrate the existence of this belief in eleven cultures, starting with the Inca and moving northward. Moche, Navajo and Eastern Greenland Eskimos will be tangentially discussed. Finally, a possible explanation for the continuity will be offered.

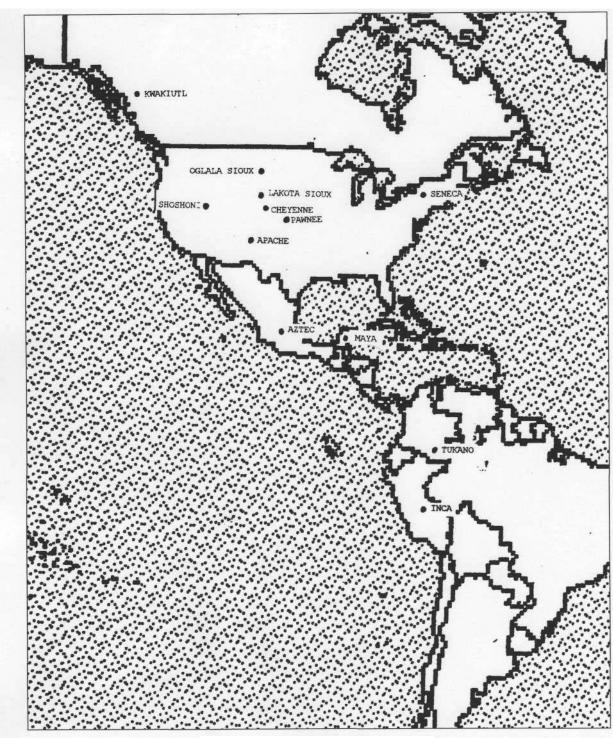


Figure 1. Cultures discussed in this paper

INCA

At the time of contact, the Inca controlled the largest territory in the history of the New World. The Inca Empire spanned the Andes, from Chile into Ecuador. To the Inca, the Milky Way was, and still is, referred to as a river flowing through the sky. Its source is said to be terrestrial, the run off of the Vilcanota River, which runs southeast/northwest through the heart Peru. The Vilcanota and the Milky Way are said to be mirror images of one another and for this reason the primary orientation of the Milky Way is said to be running southeast/northwest (Urton 1981:38). During the twilight periods of the solstices the Milky Way forms a cross in the sky. This cross touches the four points on the horizon in which the sun rises and sets during the equinoxes. Further, it divides the stars into four separate directional quarters. Though a case for the cross being formed by the ecliptic and the Milky Way can be made, Urton provides abundant and convincing evidence that it is indeed formed solely by the Milky Way (Urton 1981:54-65). The Milky Way is also said to be home to a number of animals in the form of what Urton terms "dark star constellations" (Figure 2). The dark patches in the Milky Way have names like the Llama, the Toad and the Snake. Like the celestial river they float in, these animals have terrestrial origin. Further, some equate them with the deities Viracocha (the Inca creation deity) designated as the patrons of animals (Urton 1981:169-191).

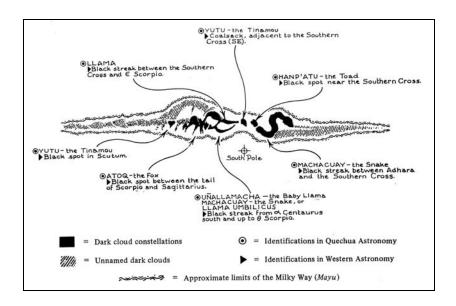


Figure 2. Inca Milky Way constellations (Urton 1981)

The souls of the deceased were said to go to the *Hurin Pacha* or "upperworld". Even while a person was still alive, the soul visited the *Hurin Pacha* during sleep. Dreams were believed to be views into the upperworld as seen through the eyes of the soul (De la Vega 1990:84-86). As discussed above, the Milky Way connects heaven and earth.

In the Inca creation myth, Viracocha himself follows the primary axis of the Milky Way (southeast to northwest) on his journey from earth to the upperworld after creation had been completed. If the *huacas* whom the Inca ask for prosperous life abide in the upperworld, then the Milky Way must be the channel through which they communicate and the shrines the portals.

Just after the June solstice the Inca himself presided over the most grave and serious ceremony of the year. It was called *Intip Raimi*, "the Solemn Feast of the Sun". Absolutely every noble from all over the Inca Empire was required to come to Cuzco for this ceremony and all people, nobles and commoners alike, were encouraged to participate (De la Vega 1966:356). The ceremony is a "centering of the universe" around the Inca in the temple of the Sun at Cuzco. The timing of the *Intip Raimi* in the ritual calendar coordinates with the time Urton reports the Milky Way to align with the Vilcanota River. It was this time, when heaven and earth come together, and the sun rose and set in the Milky Way, that the people came together with their king to pay homage to the sun.

The king was the center of the Inca world and Cuzco was the center of the kingdom. As the Milky Way did to the night sky, the Inca partitioned the realm into four sections. As the Milky Way lends order to the universe, so does the Inca king to the empire. Indeed, the cross created by the Milky Way at zenith was probably one of the Inca symbols of office. De la Vega described an inner shrine in the palace at Cuzco, a place where only those of royal blood could enter. The room was called a *huaca* and housed an heirloom handed down from king to king. It was a large cross of fine marble. De la Vega strongly asserts that this was not a Christian cross and that the Inca did not worship it but rather revered it as an ancestor or *huaca* (De la Vega 1966:73). If this cross was not a European influence than it is likely the Milky Way cross. The Inca kings considered it a symbol of their ancestors and by doing so drew a parallel between the Milky Way's function in the sky and the King's function on earth. The function of the Milky Way is to partition space and connect heaven and earth. The purest divine blood on earth coursing through the veins of the Inca made him most able to perform these tasks and the above discussion suggests that he did just that.

TUKANO

The Tukano are a small group who live in the equatorial rain forests of the Columbian Northwest Amazon. For the Tukano, the Milky Way is foam flowing up from *Ahipikondia* churned by celestial wind currents. It is sometimes referred to as a giant wind skein flowing across the night sky. A deity named *Viho Mahse* resides in the Milky Way. *Viho* is the term for the hallucinogenic powder ingested by the payes (the Tukano term for shaman) to induce vision. When a person becomes ill they are said to be under attack from the spirit world. To cure their patients, payes enlist the help of beings called *Viho Mahsa* who also dwell in the Milky Way. Rivers and hills are common spots for creating portals from which to make contact with the supernatural world. Tukano informants state plainly and clearly that the Milky Way connects the three worlds. Those three worlds are; the lower world (Ahipikondia), the Earth and the upper world, home of the spirits and Viho Mahse (Reichel-Dolmatoff 1967:43-47).

The *Malocas*, or longhouses, of the Tukano are built to be miniature models of the universe. They are always built with their main axis pointing east/west, the direction of

rivers and the Sun's passage across the sky. Three pairs of large forked posts and their respective beams separate the interior space of the Maloca. The sections are joined together from above by a single beam. This central beam is said to symbolize the Milky Way, which connects the three worlds and lies on the east-west axis. Interestingly, the word for the beam is *gumu*. The words *gumu* and *kumu* come from the same origin and mean "axis". *Kumu* is the title used to describe the most powerful shaman in the tribe. *Gumu* can also refer to a bridge created from a single trunk. Again, we see leader symbolizing the connection between Earth and the Otherworld, the Milky Way.

As a final example from South America, look at these two paintings from the sides of pottery vessels originating from the Moche culture (Figures 3 and 4). The Moche occupied the Peruvian coast starting at 200BC. The Moche were absorbed by the Chimu Empire around 750AD and then by the Inca before European contact. The men in the scene may be identified as shaman and the arc above them is a rainbow or the Milky Way.



Figure 3. Moche vessel painting featuring the Milky Way (Hocquenghen 1987)

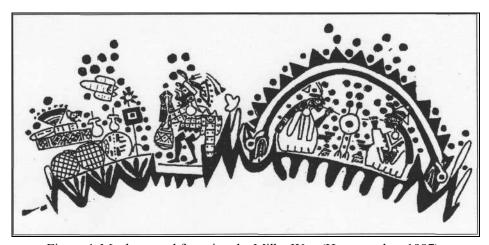


Figure 4. Moche vessel featuring the Milky Way (Hocquenghen 1987)

MAYA

The Maya have occupied Guatemala, Belize, and parts of Mexico, Honduras and El Salvador for almost 3000 years. For the Maya, both ancient and modern, the Milky Way plays a central role in a re-enactment of creation that is cyclically displayed in the night sky. Primarily, it is associated with the World Tree that reaches from Earth into the heavens. The great false Sun, Seven-Macaw, sat in this tree in the third creation. On the dates August 13 and February 5, dates especially associated with creation, the night sky goes through a cycle from dusk to dawn that recounts the story of the transition from the third creation into the present one. During those evenings, when the Milky Way runs along a North-South Axis it is the World Tree. A constellation identified as the great bird, Seven-Macaw, is positioned falling out of the top of the Tree in north. As it tilts towards the horizon, the Milky Way becomes the Crocodile Tree. When it reaches the east-west axis it switches into the canoe carrying the Maize God to the Place of creation (Freidel et al. 1993:93-99).



Figure 5. Pakal's sarcophogus lid, tree only (Brundage 1981)

While oriented on the north-south direction, the Milky Way also forms a cross with the elliptical path of the Sun. It is called the K'an Cross and correlates to a well-known symbol in Classic Maya iconography and writing (Freidel et al. 1993:94). Crosses are especially visible at the ruins of Palenque. Palenque's Cross Group was named for its abundance of the symbols. The cross is also displayed on Palenque's most recognizable scene, the sarcophagus lid on the tomb of Pakal. Brundage (1981) published a drawing of the lid omitting Pakal and leaving only the cross (Figure 5). The book Maya Cosmos suggests that this image shows Pakal falling down the Milky Way to the same path once taken by the Maize God and his brother towards Xibalba. One enters the road in the

south, at the base of the tree when it is helping to form the cross in the sky (Freidel et al. 1993:351). The Maya Milky Way is the path to the Otherworld.

The cross in the sky formed by the Milky Way and the ecliptic stretches out in all four directions. The place where they meet is the center of the universe. From the creation myth, the Popol Vuh, we know that the three hearthstones were set at this center. The first act was the setting of the stones, followed by the raising of the sky and the establishment of the four corners and sides. The Milky Way and the ecliptic form the four partitions and a triangular constellation identified by Dennis Tedlock forms the three hearthstones (1985:261). The responsible deities left the story of creation in the sky for all Maya to see and remember.

AZTEC

The Aztec creation myth begins when the Fourth Sun ended and the sky fell from its great height, covering the earth with its ruins. The celestial waters flooded the earth. Texcatlipoca and Quetzalcoatl heaved the sky back up into place. The two gods then transformed themselves into World Trees to provide more stable support. During the setting of the sky a path was worn through the wilderness of the stars that was to become known as the Milky Way (Brundage 1982; 243). The path is said to have been created on the first day of the first year (Brundage 1982; 146). In another version of the same story, Texcatlipoca and Quetzalcoatl transform into two intertwined dragons that coil around the earth to reshape it for the fifth world (Brundage 1982; 147). The outermost band of the famous Aztec Calendar Stone shows exactly that. A double headed dragon or serpent, wrapped around the Aztec universe, with the heads of two gods emerging from their mouths, as Quetzalcoatl and Texcatlipoca do in the creation myth (Figure 6). The connection of this image to the Milky Way is clear.



Figure 6. Aztec Calendar Stone

The Milky Way contemporary Aztec times, aside from its role in creation, was conceptualized as a road across the sky and was presided over by two divinities, the male *Citallatonac*, Starshine, and the female *Citalinicue*, Star Skirt. *Citalinicue* was the Great Mother of the stars and was especially associated with the Milky Way. Her messenger was the hawk (Brundage 1979; 34).

APACHE - NAVAJO

In 1907 Edward S. Curtis published the first volume of a twenty-volume set of works entitled <u>The North American Indian</u>, a collection of photographs and descriptions of the indians of the United States and Alaska. Theodore Roosevelt, who had high praise for the book and its author, wrote the foreword of this first volume. The subject was the Apache and Navajo Indians of the Arizona, New Mexico area. Curtis strongly believed that the two tribes were one in prehistoric time due to similarities in languages and mythologies (Curtis 1907;4). In a section headed "Mortuary Customs" he briefly recorded the Apache beliefs concerning the Milky Way.

Yolkai Nalin is the name of the most feared and venerated deities in Apache mythology. She is the goddess of Death and the afterlife. She controls all souls that pass on to the future world. The road to this afterworld is supposed to cross her shoulders and is symbolized by the Milky Way, a trail made by departing spirits (Curtis 1907; 34). The souls of the dead follow the path for four days and finally arrive in a land of peace and plenty, where there is no disease or death (Curtis 1907; 134).

PAWNEE

The Pawnee villages, before the tribe's relocation to Oklahoma, were located in present day Nebraska. To the average Pawnee individual the Milky Way was spoken of as "Buffalo Dust". The name came from a story of race between a horse and a buffalo in which an enormous cloud of dust is kicked up. To the priests, however, the Milky Way was "the Pathway of Departed Spirits". A Pawnee constellation located next to the Milky Way depicts two men carrying a third in a stretcher, a sick or dead man being taken along the road. The Northstar, probably Polaris, was said to greet the dead and act as gatekeeper to the path. The South Star presided over the spirit world and stood at the end of the path. The Southstar was also said to be the deity of tornados because their violent winds were akin to the winds that carried the dead along the path (Von Del Chamberlain 1982:113). Pawnee priests conducted bundle rituals in which they contacted deities and ancestors (Murie 1981:12). The Milky Way was the channel between worlds and the bundle was a terrestrial portal to the channel.

CHEYENNE

In Volume Six of <u>The North American Indian</u> by Curtis, the Cheyenne are discussed. His information comes from the group living on the Tongue River Reservation in Montana. The southern group lived in Oklahoma at the time. Briefly, again under the heading of "Mortuary Customs", while discussing the soul after death, the following statement was

recorded; "The future world was the usual material, ideal world, reached by the Milky Way. Suicides and murderers went in a opposite direction to that taken by others." (Curtis 1911; 158). Though brief, the statement clearly supports the hypothesis of this paper.

SIOUX

The Sioux are a large culture that is further subdivided into multiple smaller tribes. The Oglala and the Lakota Sioux will be the groups discussed below. Both tribes are found in the upper mid-west United States. The information on the Oglala presented here comes from William K. Power's book Qqlala Religion (1975). The testimony comes from people of the Pine Ridge Reservation in southwestern South Dakota. Power reports that the Oglala believed that souls traveled along the Wanagi Tacanku or "Ghost Road", the Milky Way. They go until they meet an old woman who judges the soul's life on earth and sends it on to the other world or back to earth to be a shade (Power 1975; 93). The light in the Milky Way is the campfires of ghosts on the road (Power 1975; 53).

The Sioux, Life and Customs of a Warrior Society by Royal B. Hassrick, discusses the Lakota Sioux conception of death and the afterlife in some detail. At death, it was believed that the spirit or *nagi* left the body to travel the "spirit trail" or Milky Way to the "land of Many Lodges". Like the Oglala, during the journey the Lakota spirit must pass by an old woman. She would examine each one for the proper tattoo marks which must appear on the wrist, forehead or chin. If they were marked correctly they were allowed passage into the "land of many lodges" where all one's ancestors pitched their tipis and buffalo roamed in unending abundance (Hassrick 1964; 297).

The Lakota rituals involving proper burial lasted over a year. At the end of the process, the shaman assisting the family opens the spirit bundle outside the door of the lodge, under the night sky, so that the spirit might be properly released to make its journey to the spirit road, the Milky Way (Hassrick 1964; 264).

SHOSHONE

The Shoshone are another large culture group divided into separate tribes. Their territory ranged from California to Utah and from Oregon to Arizona. The information below comes from tribes occupying the heartland of the Shoshone territory, Nevada and eastern California.

The generation before the extensive scholarship of Franz Boas and his colleagues, James Mooney did a study of the Ghost Dance Tradition of the Plains Indians in an attempt to explain the behavior that lead up to the "Sioux outbreak of 1890". John Wesley Powell founded the Bureau of American Ethnology in Washington D.C. in 1885 and appointed Mooney ethnologist, a career he kept with until his death in 1921. He did exhaustive studies of the rituals of the Cherokee, Kiowa, Arapaho, Sioux, Comanche and Shoshone. The Paiute tribe he identifies as part of the great Shoshonean stock and describes their territory as covering most of Nevada, together with adjacent parts of southwestern Utah, northwestern Arizona and southeast California. At one point, Mooney described a song sung often in the Ghost Dance of the Paiute involving the Milky Way and wrote in passing, "In the mythology of the Paiute, as of many other tribes, the Milky Way is the road to the dead, the spirit world" (Mooney 1896:290). His casual reference to man tribes believing this makes it appear as if he

felt that that piece of information was well known, though he makes no reference to the Milky Way in regard to any other tribe in particular.

Curtis published his fifteenth volume in 1921, its sole subject the Shoshone. The tribes in the Paiute area he refers to as the Plateau Shoshone. In their tradition, the spirits of the dead are said to rise straight through the air to the Milky Way and travel southward to the end of the trail, where they find a lake with a conical rock in the middle. Down through the hole in the apex of the rock they pass. At the bottom they emerge, living bodies, in *Pugwainumu - muguwa - bitighan* ("Place where spirit goes in"). Some say that below the Milky Way is another earth like this one of ours, but with more abundant grass and flowers. Tales from those who have died and returned say that one cannot see anything there. One hears the voices of people like the humming of "unnumbered flies" (Curtis 1921; 82).

Near the end of the origin myth recorded by Curtis the *Numu-naa*, People Father, and the *Numu-biya*, People Mother leave the earth headed southward. Mother didn't want to leave her children but Father consoled her saying that when their human children grew and multiplied there would be death and the spirits would then come to live with them again. They walked to the ocean, the clouds rose up like a great door in the sky and they climbed up a ladder to pass through it. They now reside there. When anybody dies, their spirit goes up along *Kasipo*, the Milky Way, to this place. People's Father places the soul in a box and after a time it becomes a living person. The land they live on has white soil and there is no sickness (Curtis 1921; 134).

SENECA

The Seneca are an Iroquois tribe. In the 1790's the Iroquois Nation tribes were split up into various reservations. One of the Seneca chiefs of the time was a man named Cornplanter. He was one of the chiefs of the Iroquois Nations in support of peace with the white man and had a large role in negotiations that ended the Indian resistance. Cornplanter and his branch of the Seneca established themselves around the Allegheny River, in a few little towns on both sides of the Pennsylvania border. They made treaties with the U.S. government for the land and in 1792 there were over 350 Seneca living in the area, a large portion of the believed 1800 total Seneca survivors of the day (Wallace 1972; 168).

The start of a new life on the reservation was difficult on Cornplanter's tribe of rag tag Seneca collected from the aftermath of the war against the whites. Mass depression and alcoholism were major problems. In the spring of 1799 a man from the tribe named Handsome Lake began having a series of visions that were to change all that and give the Seneca a new focus. From 1799 to 1801, he taught the Seneca of Cornplanter's reservation through his visions, condemning whiskey and the evil ways of his people. A Quaker named Henry Simmons was living among and recorded Handsome Lake's accounts of his visions. On the night of August 7th, 1799, Handsome Lake was ill and lay half dead in his bed. During this period he had his second vision, a vision that would become the core of the new Seneca religion's theology. During the trance Handsome Lake had the vision of the "sky journey". Led by a guide who carried a bow and arrow and was dressed in sky-blue clothes, he traversed heaven and hell and was told the moral plan of the cosmos. The following is a section out of Simmons record of the words of Handsome Lake concerning this vision;

"Suddenly as they looked, a road [the Milky Way] slowly descended from the south sky and came to where they were standing. Now there upon he saw the...tracks of the human race going in one direction [the individual stars] were all different sizes from small to great. This road, which they soon were treading themselves, was the path by which human souls ascended into the afterworld. On it could be observed, in various situations, many different types of people striving heavenward, and from its vantage point a vast panorama of the human scene could be observed." (Wallace1972; 243).

Simmons goes on to add to this description of the path that judges stood at the fork in the Milky Way. The good people went on the narrow path to the lands of the creator. His informants referred to the Milky Way as "the Great Sky Road" (Wallace 1972; 245).

As a final note, a comment from one of the many stories collected by Wallace (1972). The path to the village of the dead is a wobbly tree-trunk bridge guarded by a dog that sometimes pushes souls over the edge toward the raging river below (1972; 101). Again, masked in the individual mythology of the Seneca the image of the Milky Way comes through.

KWAKIUTL

In 1885 Franz Boas lived with the Kwakiutl for two years. The group he stayed with lived in Fort Rupert, just northeast of Vancouver Island on the west coast of Canada. During that time, he taught George Hunt, a half-blooded indian, and trained him as an anthropologist. Together, the two men produced volumes of monographs on the Kwakiutl. In 1975 Irving Goldman wrote a synthesis of these works, created for the purpose of investigating the nature of Kwakiutl religion. It is from Goldman's synthesis that much of the following information is collected.

There were 13 separate tribes in the Kwakiutl language group at the time of Boas' study. He included the entire group into a larger category he classified "Northwest Coast Culture". As mentioned earlier, his time was spent primarily with the Kwakiutl living in Fort Rupert, deeded to them through treaty. For the purposes of this paper, the most important ceremony that Boas witnessed and recorded was the Winter Ceremony. The Milky Way plays a central role in the Winter Ceremony. Its connection is described below.

The Winter Ceremony takes place within a lodge especially constructed for the purposes of ritual. It is a reenactment of a myth played out by chiefs and warriors of the tribe. The main role in the ceremony is "Man Eater", a deity located at the headwaters of the rivers at the north end of the world. The highest-ranking chief has the honor of impersonating this powerful and feared deity. A warrior is tied to a great pole that extends up through the center of the lodge. It is the role and identity of this pole that allows us insight into the Kwakiutl conception of the Milky Way. A smooth mast of cedar some 40 feet tall, it projects through the roof of the lodge. It is said to be the channel for spirits arriving from the otherworld (Goldman 1975; 195). It is also referred to as a bridge to the sky. Named the Cannibal Pole, it's the great symbol of death and resurrection (Goldman 1975; 93). The Cannibal Pole is the Man Eater's own tree that connects him with the sky.

The entire set of animals associated with Man Eater is elaborately carved into its sides (Goldman 1975; 110). The animal image carved into the top of the pole, the Eagle is also associated with the Milky Way. The Eagle rests upon the Grizzly, "the guardian of the doorway". In tribal ranking systems, the Eagle is associated with the highest ranked chief and more generally with shamanism (Goldman 1975; 111). The lodge and pole are further said to be connected to the life of the lineage chief. The lodge is torn down at the death of one chief and rebuilt in stages over a period of four years. The four years correspond to the rite of elevation of the heir (Goldman 1975;65). Again, as we see with many cultures in this study, connections between the lineage chief and the Milky Way are drawn.

A final image comes from East Greenland Eskimos entitled, "The way to the afterworld" (Figure 7). The ethnography from which this drawing comes never speaks of the Milky Way. However, considering the evidence given thus far in this paper, the drawing speaks for itself.

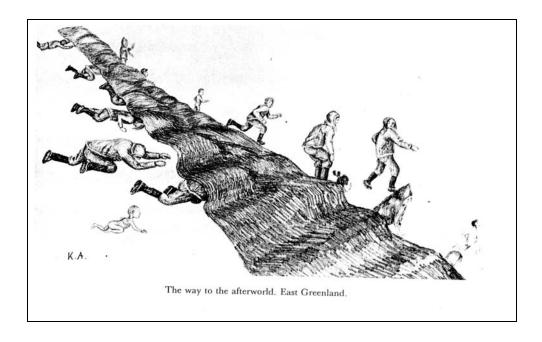


Figure 7. Greenland Afterworld Passage (Kleivan and Sonne 1985)

CONCLUSION

The preceding collection of myths and testimonies demonstrates clearly that the identification of the Milky Way as the path to the otherworld was a Pan-New World concept, established long before European contact. The question then becomes, why such continuity in the beliefs about the Milky Way but not regarding the other elements of the sky? Beliefs regarding the Sun, the Moon, the planets and the stars vary widely across the New World. What makes the Milky Way different? The explanation offered here is that the Milky Way, as the path to the otherworld, is central to the ancient tradition of shamanism. Eliade's landmark research of the 1960's convinced most scholars that shamanism is a tradition shared by all new world

cultures. Shamanism entered the New World through the Bering Strait land bridge with the first peoples to cross over from Asia. Thus, Eliade places the origins of the shamanic complex in Asia. Over millennia, people who entered the New World spread out and settled into geographical niches and developed their own ethnicities. Shamanism was there from the beginning and was such a core element of people's lives that it survived the processes of cultural evolution. The power of shamanism is the ability to contact the Otherworld and they do so via a path between the worlds. This paper has attempted to prove that cultures across the New World identified that path with the Milky Way.

What kind of conclusions does this continuity lead to? The process by which a linguist constructs theoretical models provides an appropriate analogy. A linguist starts with a group of mutually unintelligible languages a finds common ancestry between them. It is done by keying on core words in vocabulary known to change little over time. Proto-languages are reconstructed in this way. This paper suggests that this singular explanation of the Milky Way is analogous to the core words in vocabulary that related groups of modern languages share. Along with the tradition of shamanism, the identification of the Milky Way as the path to the otherworld is further evidence for the theory of a proto-New World culture, with common roots in Asia.

BIBLIOGRAPHY

Aveni, Anthony F.

1980 <u>Sky Watchers of Ancient Mexico</u>. University of Texas Press, Austin.

Boaz, Franz

1966 Kwakiutl Ethnography. Edited by Helen Codere, The University of

Chicago Press, Chicago and London.

Brundage, Burt Cartwright

1979 <u>The Fifth Sun. Aztec Gods. Aztec World</u>. University of Texas Press, Austin.

1981 The Phoenix of the Western World, Quetzalcoatl and the Sky

Religion.

University of Oklahoma Press, Norman.

Carlson, John

1990 America's Ancient Skywatchers. National Geographic, Vol. 177, No. 3,

March 1990, pp76-107.

Coe. Michael D.

1987 <u>The Maya, fourth Ed., Thames and Hudson Ltd., London.</u>

Curtis, Edward S.

1907 The North American Indian. Being a Series of Volumes Picturing and

Describing The Indians of the United States and Alaska, Volume 1.

Johnson Reprint Corporation, New York, New York.

1911 The North American Indian. Being a Series of Volumes Picturing and

Describing The Indians of the United States and Alaska. Volume 6.

Johnson Reprint Corporation, New York, New York.

1926 The North American Indian, Being a Series of Volumes Picturing and

Describing The Indians of the United States and Alaska. Volume 15.

Johnson Reprint Corporation, New York, New York.

de la Vega, El Inca, Garcilaso

1966 Roval Commentaries of the Incas and General History of Peru, Part One.

Translated by Harold V. Livermore. University of Texas Press, Austin.

Eliade, Mircea

1964 Shamanism: Archaic Technique of Ecstasy. Princeton University Press,

Princeton, NJ

Freidel, David, Linda Schele and Joy Parker

1993 <u>Maya Cosmos - Three Thousand Years on the Shaman's Path</u>. William

Morrow and Company Inc., New York.

Goldman, Irving

1975 The Mouth of Heaven. An Introduction to Kwakiutl Religious Thought,

John Wiley & Sons, New York, London, Sydney, Toronto.

Hassrick, Royal B.

The Sioux, Life and Customs of a Warrior Society, University of Oklahoma

Press, Norman.

Kleivan, I. and B. Sonne

1985 <u>Eskimos Greenland and Canada</u>, Institute of Religious Iconography,

State University Groningen, E.J. Brill, Leiden.

Mooney, James

The Ghost-Dance Religion and the Sioux Outbreak of 1890, Phoenix

Books,

The University of Chicago Press, Chicago, London.

Murie, James R.

1981 Ceremonies of the Pawnee Part I: The Skiri, Ed. Douglas R. Parks.

Smithsonian Institute Press, Washington, D.C.

1981 <u>Ceremonies of the Pawnee Part II: The South Bands</u>. Ed. Douglas R.

Parks.

Smithsonian Institute Press, Washington, D.C.

Powers, William K.

1975 Oglala Religion, University of Nebraska Press, Lincoln/London.

Reichel-Dolmatoff, Gerardo

1971 Amazonian Cosmos - The Sexual and Religious Symbolism of the Tukano

Indians. The University of Chicago Press, Chicago and London.

Schele, Linda and David Friedel

1990 A Forest of Kings - The Untold Story of the Ancient Maya. Quill William

Morrow, New York.

Tedlock, Dennis

1985 Popol Vu. a translation. Simon and Schuster, New York.

Urton, Gary

1981 At the Crossroads of the Earth and the Sky - An Andean Cosmology.

University of Texas Press, Austin.

Von Del Chamberlain

1982 <u>When Stars Came Down to Earth - Cosmology of the Skiri Pawnee</u>

Indians of North America, Ed. Thomas C. Blackburn. Ballena Press,

Los Altos.

1982 <u>The Skiri Pawnee Earth Lodge as an Observatory</u>. Archaeoastronomy

in the New World, Ed. Anthony F. Aveni. Cambridge University Press,

Cambridge.

Wallace, Anthony F.C.

1969 <u>The Death and Rebirth of the Seneca, Vintage Books, a division of the Death and Rebirth of the Seneca</u>

Random House, New York.

Williamson, Ray A.

1984 <u>Living the Sky - The Cosmos of the American Indian.</u> University of

Oklahoma

Press, Norman.