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Places of power—speculations on archaeological motifs in British Columbia's rock art

by Doris Lundy

This paper was first given at an International Conference held in Little Rock, Arkansas, in 1984. At that time, the author, Doris Lundy, was a member of the Canadian Rock Art Research Associates, an organization that no longer exists. Her paper is re-published here, as originally presented in 1984, with her gratefully-received permission.

Doris Lundy is perhaps best known for her monumental MA thesis on NW Coast Rock Art, 1974, Simon Fraser University. She recently retired from the Archaeological Branch in Victoria and is very knowledgeable about all aspects of Gabriola's petroglyphs and petroglyph sites. Her work attracted my attention because at least two of Gabriola's petroglyph sites, DgRw-228 and DgRw-230, undoubtedly had astronomical and cosmological significance.*

ED.

* unpublished, but available at <http://summit.sfu.ca/item/4415>

Perhaps the most important requirement for the preservation and transmission of knowledge is a stable social structure. Stable conditions existed for thousands of years in prehistoric British Columbia: the archaeological record shows no devastating upheavals of either a physical or cultural nature. These conditions existed until contact with Europeans in the 17th century: a contact that eventually destroyed or reformed traditional hierarchies and structures. Disease in particular decimated entire villages and populations until a thriving Native people of over eighty thousand was reduced to one of less than thirty thousand in less than two hundred years. Much information was lost, including data on rock carvings and paintings, and also concepts and knowledge of the cosmos and the heavens. However, as ethnoastronomer David Vogt of the University of British Columbia points out,¹ there is vestigial evidence of a complex cosmology as well as

traces of other astronomical lore buried in the surviving myths and other ethnographic sources of information. To varying degrees, some of these astronomically-oriented myths and fragments of myths involve rock art sites and designs. Sometimes the involvement is at second or third hand: at other times it is quite direct.

It is a well-known and frequently recorded fact that many Native groups, including those of the British Columbia coast and interior plateau, made a practice of watching for daybreak and dawn. Both Swanton among the Tlinget² and Olsen among the Quinault³ noted, for example, the use of horizon markers to fix the position of the rising sun as it moved along the eastern horizon during the course of a year.

These observations were made to mark the passage of the year, to anticipate the

¹ Vogt, D., *Raven's House of Myth*, ms, University of British Columbia, 1979.

² Swanton, J., *Some Practical Aspects of the Study of Myths*, Journal of American Folklore, 23, New York, 1910.

³ Olsen, R.C., *The Quinault Indians*, University of Washington Press, Seattle, 1936.

seasons, and to inform the people when to prepare for ceremonies and to exploit seasonal resources. Along the coast, astronomical observations helped pinpoint the timing of the winter solstice and attendant winter ceremonials.

A special group of experts made the necessary solar observations and the title “astronomer-shaman” seems appropriate for these persons in light of their skills at observation and their involvement with the supernatural world. Their abilities and power were crucial to the well-being of all Native people.

In a remarkable publication, *Crystals in the Sky: An Intellectual Odyssey Involving Chumash Astronomy, Cosmology, and Rock Art*, authors, Travis Hudson and Ernest Underhay,⁴ researched the astronomical lore of the Chumash of California and sought to link this data to other facets of Native society, including the famous rock paintings of the region. Some of their comments about the cosmology and the role of the ancient California shaman-priests are, I feel, also applicable (in spirit at least) to Native practitioners in British Columbia. They comment as follows:

In summary, the degree of Chumash involvement in astronomy and cosmology was far more extensive and much more meaningful than has previously been suspected. However, their knowledge was not ‘scientific’ in the usual sense of the term, but rather pragmatic in that it was applied to survival and the betterment of life. Their understanding of the universe enabled them to cope with and (when possible) manipulate the supernatural forces in flux around them. Without this understanding, they could not

hope to survive, much less exercise any degree of control over their environment.

Hudson and Underhay go on to discuss the role of these astronomer-shamans in some detail:

The men entrusted with the critical task of dealing with the universe were the ‘alchuklash, the astronomers, of whom much can be said. The ‘alchuklash (who were members of the ‘antap cult) functioned in many elite roles other than those connected with the heavens. As shamans, they could cure the sicknesses of mankind, while as cult priests, they could ‘cure’ the universe by means of power and knowledge (using a sacred pipe in both instances). The ‘alchuklash were the ‘enlightened’ ones who could penetrate any mystery concerning man or the heavens, and who could foresee the future and act accordingly. In short, their formal role on the community level was that of cult priests—ministers who taught about the entire cosmos and its constituents parts—while on the individual level they functioned as shamans. They provided ritual sustenance for the community and supplied meaning to life itself: their realm of influence embraced all aspects of an individual’s life—birth, puberty, marriage, sickness, death, and afterlife. Therefore, it is not surprising that individuals in Chumash society supported, yet greatly feared, these practitioners of magic and sorcery and manipulators of supernatural power.

In addition, the authors note that these specialist time-keepers were also forecasters, interpreters, and manipulators of weather phenomena.

Sky observations demanded special locations, generally a prominent rise of ground with a clear view of the western, eastern, or southeastern horizon, marked perhaps by specific landforms along which the sun’s course could be plotted relative to

⁴ Hudson, T., and Underhay E., *Crystals in the Sky: An Intellectual Odyssey Involving Chumash Astronomy, Cosmology and Rock Art*, Ballena Press, 1978.

a fixed position. Newton,⁵ writing on the survival of astronomical ideas in the mythology of coastal groups, notes that a missionary by the name of Pierce reported that “astronomers belonging to the different tribes gathered on a hill near the Tsimshian village of Kitsequecla in the spring and fall”. On this hill—apparently an observation place from early times—“they observed the setting sun and sent messengers to all the different tribes warning people and telling them what they might expect to happen”. The site, unfortunately, no longer exists.

The phrase, “what they might expect to happen”, probably refers in large part to the timing of the winter ceremonials held from November through January among coastal peoples. These gatherings were an elaborate social event closely linked to celestial phenomena, in particular, the winter solstice. According to Vogt:¹

The darkening days of the coming winter heralded a time of death, hardship, and great changes for the peoples of the Northwest Coast. With the sun sinking lower and lower in the south, the encroaching forces of darkness seemed to foretell the extinction of all life. To fight against this, the major coastal tribes, the Kwakiutl, Haida, Tsimshian, and Tlinget, all put aside their other labours and concentrated wholeheartedly on a winter festival that was meant to make the increasing doom yield and allow the light to return. This festival, called the Winter Ceremonials, was by far the most important event of the year, and commanded much of the annual social and economic output of each tribe. Everything was well planned ahead of time so that the strict rituals would be maintained exactly, and the feasts, singing, dancing, and tale-telling lasted from November to January of each year. Although there isn't any evidence to tie the events

exactly to the winter solstice, the Winter Ceremonials were consciously centred around it in both time and thought.

He goes on to note:

The spiritual conception which initiated all of these changes held that humans were creatures of the light and day, and that the animal spirits belonged to the darkness and night. So when winter came and the stars began to stay out longer and longer, it was thought that the spirits were taking over.... The people were pretending to be the animal spirits to act out the original Creation, in which the spirits, when flooded by light, became real animals and people. Nature also joined the act, because during the Winter Ceremonials, the Sun would turn around and ascend the skies, bringing with it the longer days and new life.

The winter ceremonials were the re-enacting of ancient creation myths, in particular, the story of Raven, culture hero of the coast, who stole light for the world. Among many raven myths recited during the ceremonies, this was the most important. As the ceremonies proceeded and the myths and stories and dances were performed, the sun, reaching solstice, would appear to hesitate on the horizon and then could be seen to “turn” and begin to retrace its path back along the horizon toward the north.

Several rock art sites are known to have played a part in the winter rituals and thus are indirectly linked to prehistoric astronomical observations and to Native concepts of the earth and universe. Some were places of preparation such as at Tastquam Creek in the Bella Coola valley where chiefs would go to “peck out” figures in time to the music they were composing for the winter dances. The designs seem unimpressive, yet the site—sheer rock in dark forest near a waterfall—was an imposing one, and the area was forbidden to the uninitiated. Other rock art sites appear

⁵ Newton, N., *On Survivals of Ancient Astronomical Ideas Among the Peoples of the Northwest Coast*, B.C. Studies, 26, Vancouver, 1975.

to have functioned as places to record completed ceremonies such as at Thorsen Creek also in the Bella Coola valley. Here, the carvings recorded the bestowal and transfer of rights to property, masks, and songs, and so on [Figure 1]. At Fort Rupert slaves were reportedly killed by a society of “cannibal” dancers during the local version of the ceremonies and beach boulders were caved with the face of the cannibal spirit and victim.⁶

As Vogt points out, among the Kwakiutl and in various similar forms among other groups of the coast, the personification of darkness and death associated with the ceremonials was called “Cannibal at the North End of the World”. This being was represented as an anthropomorphic figure with a huge mouth with which it engulfed people. Vogt claims that such a figure was a representation of the sky pole at Polaris (the north star) about which all other stars appear to revolve and through which the dead must pass. Coastal peoples, the Kwakiutl in particular, saw the Milky Way as the Cannibal’s Pole which he used to descend from the heavens to take part in the ceremonials.

Mr. Bill Seward, Chief of the Nanaimo band of the Coast Salish people on Vancouver Island, stated that two imposing figures at the Nanaimo River petroglyph site were representations of the cannibal spirit as he



Figure 1: Petroglyphs at Thorsen Creek, Bella Coola valley, (FcSq-1). said to record events of the winter ceremonies.

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appeared in the local winter dances [Figure 2].⁷

None of these sites, however, appear to have functioned as astronomical observation places. They are best regarded as recordings of events related to the winter ceremonials and therefore only indirectly linked to Native cosmologies.

⁶ Boas, F., *Chinook Texts*, U.S. Bureau of American Ethnology, 20, Washington, 1894.

⁷ Personal communication, 1970.

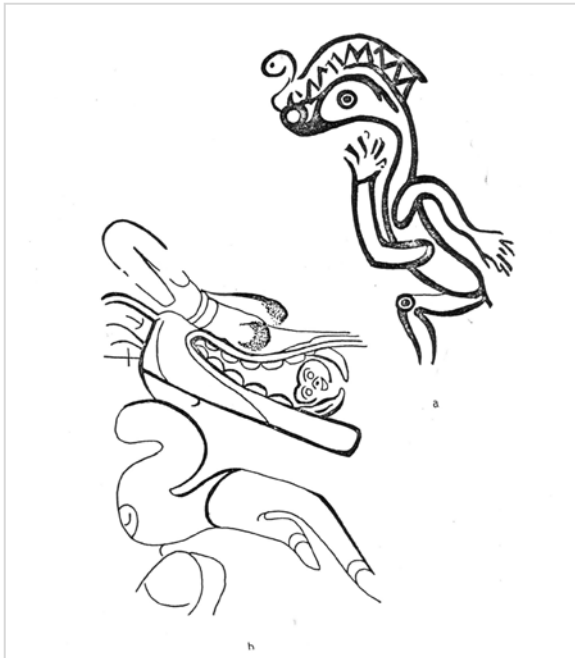


Figure 2: Petroglyphs at the Monsell site, Vancouver Island, (RgRx-8), said to record the "Cannibal Spirit" of the winter ceremonies.

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James Teit, an ethnographer in the British Columbia interior recorded many pictographs in territories of the Thompson,⁸ Lillooet,⁹ and Shuswap peoples.¹⁰ He also obtained reliable interpretations for many of the designs he encountered. Among his notes are several designs with astronomical meanings. At Seton Creek in southern British Columbia, he noted designs that were intended to represent the sun, moon, and stars. One particular design was explained to Teit as representing

⁸ Teit, J., *The Thompson Indians of British Columbia*, Memoirs of the American Museum of Natural History, 1 (4), New York, 1900.

⁹ Teit, J., *Traditions of the Lillooet Indians*, Journal of American Folklore, 15, New York, 1912.

¹⁰ Teit, J., *The Shuswap*, Memoirs of the American Museum of Natural History, 2 (7), New York, 1909.

the sun at noon. Here the sun is shown above the earth on which there are depictions of mountain sheep [Figure 3]. At a third panel of this extensive site, the sun is shown accompanied by mountain goats. The common occurrence of wavy lines extending from the sun circle [Figure 4] is said to represent rain, and suggests that these sites were used for weather prediction or manipulation as well as celestial observation. This is similar to the situation in California where the same rock art site was used for shamanic activities, astronomical observations, and weather rites. The wavy lines may also be interpreted as power emanations in both sun and human figures.

In researching this material, I couldn't help noting the similarities in mythologies, organizations, and sometimes even designs of the Chumash area of California mentioned previously, and that of the Northwest Coast. One of these recurring themes involves the quartered circle, a design which has been reliably interpreted in

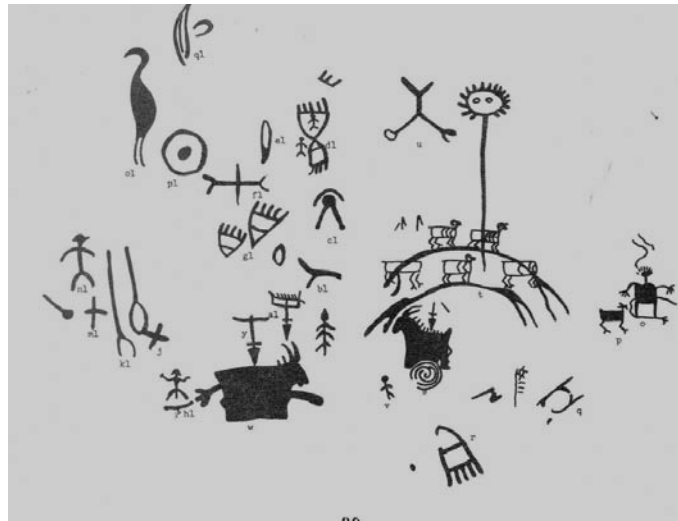


Figure 3: Pictographs at Seton Creek, southern British Columbia interior plateau, (EeRI-20), showing "sun at noon with mountain goats".

Drawing by J. Corner

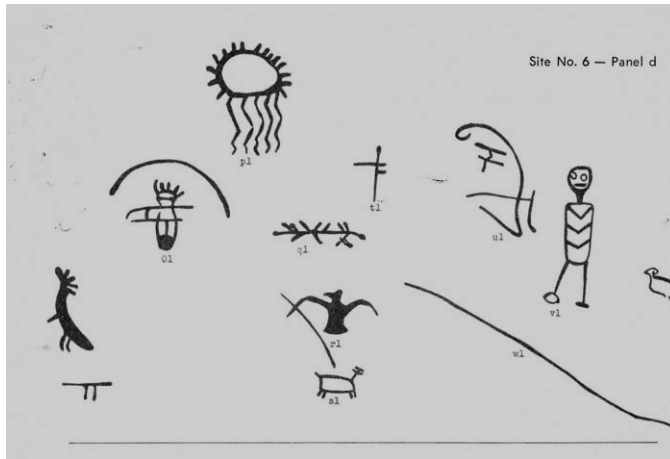


Figure 4: Pictographs at Stein River, southern British Columbia interior plateau, (EbRk-2), showing "sun with rain".

Drawing by J. Corner

California and elsewhere in North America as being closely associated with astronomical ritual. At Condor Cave in California, a variation of this design was found painted on the rock walls and on sticks used for making solar observations. It represents the four quarters, that is, the division of space and time as determined by the solstices and equinoxes. These quartered circles are quite similar to designs found in the Pacific Northwest at a petroglyph carved at the confluence of the Willamette and Columbia Rivers. Hans Martin, a researcher with Parks Canada who is investigating astronomical alignments at the Peterborough Petroglyphs in Ontario, suggested that lines drawn through the centres of the circles might indicate the setting and rising places of the summer and winter sun. This has not been verified by fieldwork and may never be since the boulder has been removed from its original location thus making attempts to verify or

disprove suggested original alignments futile.¹¹

At Hedley Cave, an interior plateau pictograph site in southern British Columbia, one design was interpreted by Teit as "the four quarters" [Figure 5]. It is possible that Hedley Cave—a stratified rock shelter—may have functioned as a sun-watching place, for the site is sheltered and possesses a clear view of the southeastern horizon. This particular design may have an astronomical meaning similar to that of the quartered circles. At other North American rock art sites, concentric circles and spirals have been shown to be astronomical

symbols (Sherrold and others) and although these designs are common along the Northwest Coast, no similar function has as yet been proven.

At Seton Lake, Teit also identified an "earth line" in association with sun designs [Figure 6]. Just possibly this long horizontal painted line may represent the horizon as viewed from the site, in which case other symbols closely associated with the design might be specific landforms over which the position of the sun was observed and monitored during the course of a year. There are often mountain goats and mountain sheep depicted in association, and the relationship occurs here too. According to the myths of several Interior groups, the mountain goats are the sun's daughters and they figure frequently in astronomically involved myths.¹²

¹¹ Hill, B. and Hill, R., *Indian Petroglyphs of the Pacific Northwest*, Hancock House, Saanichton, 1974.

¹² Morice, Father, *Carrier Sociology*, Transactions of the Royal Society of Canada, 10, 1892.

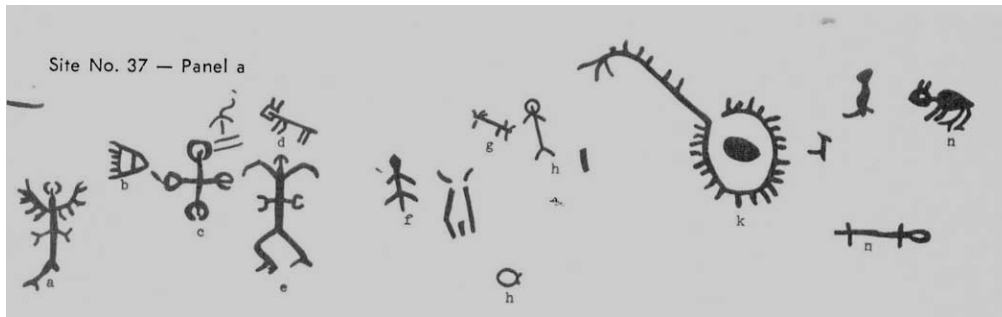


Figure 5: Pictographs at Hedley Cave, southern British Columbia interior plateau, (DhRa-2), showing bear track and “four quarters”.

Drawing by D. Huntley



Figure 7: Pictographs at Yellow Island, southern British Columbia coast, (DiSe-9), showing probable sun designs.

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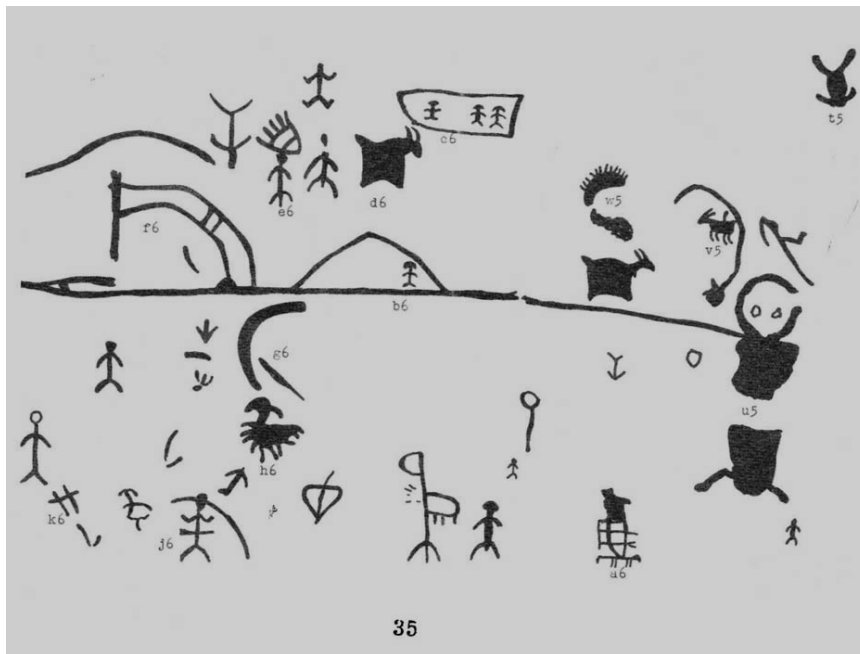


Figure 6: Pictographs at Seton Creek, southern British Columbia interior plateau, (EeRI-20), showing “earth line”.

Drawing by J. Corner

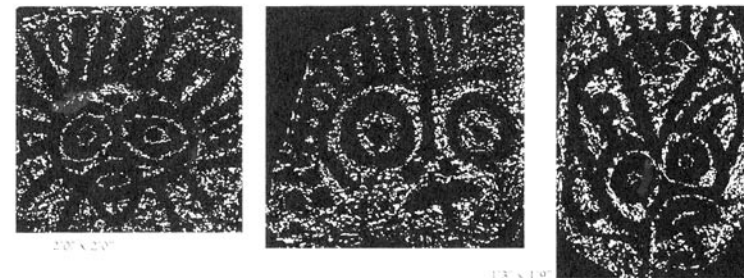


Figure 8: Petroglyph at Venn Passage, central British Columbia coast, (GbTo-40), showing possible sun-related design.

Rubbing by B. Hill



Figure 9: Pictograph from Kwatna Inlet, central British Columbia coast, (GbTo-40), showing crescent moon.
 Photograph by P. Hobler
 Red-filter used for B&W image

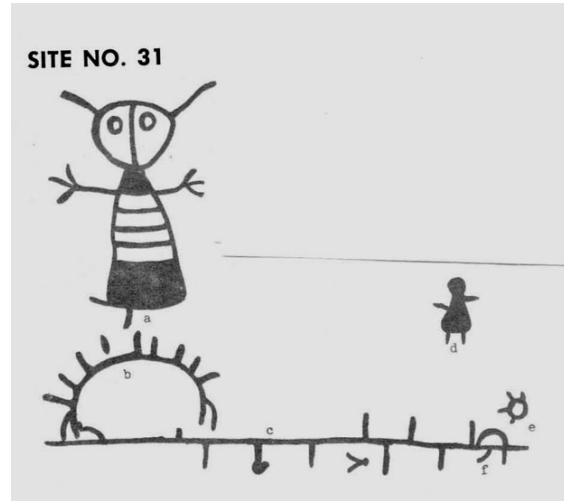


Figure 11: Pictograph from Similkameen River area, southern British Columbia interior plateau, (DiRb-21), showing possible shaman figure, earth line, rising sun, and star.
 Drawing by J. Corner



Figure 10: Petroglyph from Gibbs Creek, southern British Columbia interior plateau, (EeRI-42), showing pits.
 Photograph by Desmond Lundy

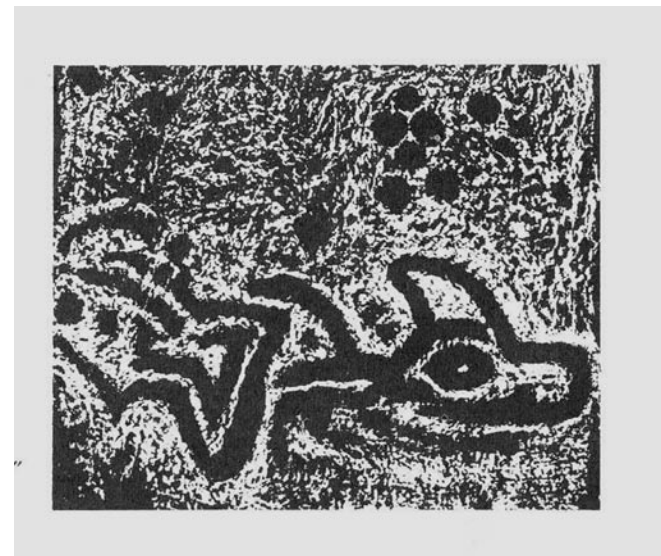


Figure 12: Petroglyph from Quadra Island, southern British Columbia coast, (EaSg-21), showing killer whale and pits.
 Rubbing by B. Hill



Figure 13: Pictographs at Pavilion Lake, British Columbia interior plateau, (EfRk-3), showing human figure surrounded by stars.

Drawing by J.Corner

Teit identified many interior pictograph sites as locations for the guardian spirit or vision quest, or as places that recorded other coming-of-age rituals. I suspect that many of these same places also functioned as sun monitoring or daybreak watching stations, possibly, but not necessarily, used by the same initiates undergoing puberty rituals or vision quests. It may be that we are seeing, particularly in the astronomical designs, further links with the spirit world whose power shamans, initiates, and ritualists all sought to tap. In addition, these sites may also have been used as weather observation and manipulation places and shamanic retreats. I see no problem with dual or multi functions for some of these sites, particularly since all of these activities are concerned in some way with drawing power from the supernatural world. This multi-use of sites may also explain in part why pictograph and petroglyph sites show

obvious evidence of use at different times or by different people.

Unequal groove depths, and dissimilar hues and composition of pigment, and above all different styles, all suggest input from more than one person per site. No definite sun designs have been ethnographically identified as yet among coastal rock art designs, but some designs are certainly suggestive [Figure 7], and several of the ubiquitous circle faces, such as at Venn Passage, may have been intended to represent sun masks, sun myths, or possibly the sun itself [Figure 8].

In other parts of North America, anthropomorphic faces with rays emanating from them have been identified as shaman figures in contact with spirit forces.¹³

The moon also figured prominently in prehistoric cosmologies. On the coast, lunar observations were made by whale hunters¹⁴ and, in fact, by anyone intending to cross large bodies of open sea. De Laguna found, among the Tlinget,¹⁵ evidence of a calendrical counting board utilizing holes and pegs and apparently only understood by experts. It was called the “place of Moon's

¹³ Vastokas, R. and Vastokas J., *Rock Art of the Algonquin Indians*, Peterborough University Press, Peterborough, 1973.

¹⁴ Olsen, *ibid.*, p.177.

¹⁵ De Laguna, F., *The Story of a Tlinget Community*, Bureau of American Ethnology Bulletin 172, Washington, 1960.

Teeth” and with it these experts could predict to the day the beginning of eulachon runs and the return of migrating swans or geese.¹⁶

According to Boas in his 1906 study,¹⁷ the Kwakiutl consulted the moon to determine when the herring season should begin. They also, (again according to Boas) believed that if the new moon in March stood upright, that is, with the concave side toward the side, then there would be no eulachon because the fish would be running out of the “moon canoe”. When, however, the new moon is seen with the convex side downward, it means there will be plenty of fish because they can’t run out. It is interesting to note that because of the geometric relationships of the earth, sun, and moon, the “horns” of the moon are always horizontal in the spring¹⁸ and therefore it appears to be safe to predict a good year of eulachon fishing. Among the Chumash of California, there was a similar belief concerning the crescent moon. They believed that if the “horns” were vertical, that is, one above the other, then the moon was empty of rain. If they were horizontal, that is both pointing up then there would be plenty of rain for the coming year. The Quinault believed that a waxing moon at winter solstice indicated a lean year approaching while a waning moon was a sign of a plentiful year.¹⁹

At Kwatna Inlet in Bella Bella territory, a pictograph of the crescent moon [Figure 9] may or may not be associated with fishing ritual. It is doubtful if it is concerned with eulachon runs in light of the position of its “horns” but it may possibly be concerned

with exploitation of other resources later in the year.

There are numerous depictions of the easily recognized crescent moon in interior pictographs, all interpreted as such by Teit’s informants. These designs are frequently associated with other celestial paintings. It appears that the moon, with its easily followed cycle was used more than the sun in order to determine the seasons of the year. It functioned as a calendrical device closely watched with regard to resource gathering.

Sometimes the rock art hints at this. For example, at Gibbs Creek the many pitted boulders (more than 90) are clearly associated with the annual salmon runs in the Fraser River for as the first of the salmon appear and ascend the river, the marked rocks also appear above the low waters in July and August.²⁰ These same boulders mark the best spearing and netting stations and were probably family owned. The pitted rocks, most of them at least, disappear about the same time as the fish runs finish and water levels begin to rise. The tenth month of the Lillooet people in whose territory the site is located is known as “the fish come”, while the following lunar based month is called “boiling” referring to the preparation of the catch. This site is also associated with coming-of-age rituals as Teit recorded that young men were expected to peck boulders to gain the strength of the rock for themselves. There are many pits, some circles, and some human and animal figures, but, unfortunately, no clearly lunar or other astronomical designs [Figure 10].

Other sites that many possibly be connected with lunar observation, or ritual, or by extension the seasonal harvesting of

¹⁶ Newton, *ibid*, p.22.

¹⁷ Boas, F., *Kwakiutl Texts* (Second Series), Memoirs of the American Museum of Natural History, 10 (4), New York, 1906.

¹⁸ Hudson and Underhay, *ibid*, p.76.

¹⁹ Olsen, *ibid*, p.176.

²⁰ Lundy, D., *Petroglyphs of the British Columbia Interior*, in Canadian Rock Art Research Associates ’77, Heritage Record 9, British Columbia Provincial Museum, Victoria, 1979.

resources, include Thayer Creek in Tlinget territory where De Laguna recorded designs representing a moon and eye, and McAllister Point and Fredrick Arm, both pictographs of the Northwest Coast, which feature moonlike designs. Obviously sites with designs of the crescent moon are easier to recognize than those where the moon might be represented by a simple, but ambiguous, full circle. Obviously too, in light of present research it is uncertain as to the function of these sites: they may record non-lunar subjects such as family names or rights, and they might symbolize other phenomena entirely.

Robert Heizer found a persistent connection between certain petroglyphs in various parts of California and weather forecasting and manipulation.²¹ Several of the designs he notes (bear tracks, parallel grooves, and especially pits) are commonly encountered in British Columbia although evidence linking local petroglyphs to weather ritual is at the moment inconclusive.

More research is required to identify planets, specific stars, or possible constellations. Vogt associates the Raven figure (the mythological hero, not the actual bird) with Venus as the morning star for several reasons, but mainly because both are in turn associated with the bringing of light. Venus was watched to determine the time left before dawn. Among many coastal and interior people the name given to Venus translates as a version of “it is becoming daylight”, and Raven is similarly named in numerous myths and stories.

At DiRb-21, a pictograph on the Similkameen River in southern British Columbia, Teit identified an earth line, a rising sun and an accompanying star

[Figure 11]. I suspect that this particular association of designs may mark this place as a solar observation site. The star may be a representation of Venus preceding the rising sun. The site faces south across the river and its horizon is marked by prominent landforms suitable for sightings. This suggestion too, has yet to be tested by fieldwork. It is worth noting that another associated design, of a horned anthropomorph, may have been intended to represent a being with spirit power reinforcing the notion of shamanic activity or use of the site for vision quests.

In 1977, Tom Loy of the British Columbia Provincial Museum presented a preliminary paper at the Victoria conference of the Canadian Rock Art Research Associates, in which he associated the setting and rising of the Pleiades with the seasonal appearance and disappearance of the fish runs on which most Northwest Coast and much interior economy depended. The Pleiades rise in the fall and set in the spring, their visible period roughly spanning the end and the beginning of the runs. To Loy, the symbolic link between stars and fish lay in the image of the killer whale. The clue was a bone carving of this animal from a Northwest Coast site. The carving of the whale had six or seven pits carved into it which closely resembled the arrangement of stars in the asterism. Loy reasoned that a killer whale and Pleiades association was an eminently logical one, for the stars’ appearance and position indicated the approaching or ending season and the actual sighting of the killer whales in the water indicated the exact location of the schooling fish.

At Kitimat, the same year, an archaeological survey turned up a petroglyph of a killer whale carved on a beach. Above the body of the whale were pits carved in a pattern somewhat similar to that of the star cluster

²¹ Heizer, R., *Sacred Rain Rocks of Northern California*, Reports of the University of California Archaeological Survey, 20, Berkeley, 1953.

and the amulet. Since then, examination of rock art records have revealed another suggestive association of whale design with a similar internal arrangement of pits, this time at a petroglyph on Quadra Island on the southern coast [Figure 12].

In support of this admittedly speculative contention it should be mentioned that Yokuts astronomers in California also used the last appearance of the Pleiades on the western horizon at dusk to signal the time when the first salmon would appear.²²

Among the Thompson of the British Columbia interior, as with just about all Native people, the stars were considered to be the spirits of the dead. At Pavilion Lake, the late Bob Selqua, one time chief of Pavilion Village reportedly said that his ancestors made the nearby pictographs of animals and human figures and that every time a chief died his son painted a picture of a man on the rock [Figure 13]. The paintings with star designs associated with human figures indicated the chief's greatness.²³

There are usually recommendations to arise out of any preliminary study such as this, and they generally fall under the vague category of "future work". On the basis of present, as yet uncompleted research it is clear that there is a rich and neglected area for study in the links between prehistoric rock art and Native astronomy in British Columbia. I would recommend that all rock art sites in the province, especially those containing known or suspected astronomical designs or function be examined more closely—in situ—to determine if they could

²² Hudson, *ibid*, p.130, quoting Gayton, A.H., *Yokuts and Western Mono Ethnography*, University of California Anthropological Records 10(1-2), pp.162–165, 1948.

²³ Corner J., *Pictographs—Indian Rock Paintings in the Interior of British Columbia*, Wayside Press, Vernon, 1968.

have been solar, lunar, or stellar observation stations. In addition, existing literature should be culled for any other cosmological clues and references while known myths need to be examined as possible productive sources of information on astronomy, cosmology, weather manipulation, or other related subjects. More research is also needed into the field of lunar-based calendars and possible star names and constellation identification.

Perhaps most important, I want to stress how vital it is that we not move or otherwise disturb "portable" rock art, since delicate and previously unknown alignments could be destroyed or confused.

Perhaps by pooling the resources of two neglected areas of study—rock art and ancient astronomies—we stand to gain new insights into both fields. ◇

Editor's note: Archaeoastronomy has interested me ever since it was invented by Alexander Thom, back when I was a teenager, hiking, biking, and availing myself of England's pre-Beeching rural railways to explore ancient monuments on the Berkshire and Marlborough downs. I was therefore astonished to read that the Native people of North America had observed that the 'horns' of the new moon in spring were more horizontal than vertical. Aren't the orbital periods of the sun and moon independent? We can't synchronize lunar and solar calendars, so how, by observing the horns can you tell whether it's spring or fall? And what has this to do with eulachon runs? So far, I have found out the following. It is true; on average, the horns are more horizontal in spring. This is because before you can easily see a new moon, it has to distance itself from the sun, and in the couple of days it takes to move away, the moon, on average, follows the future path of the sun along the ecliptic, which in spring is upward and in fall downward. The orientation however varies with the positions of the moon's nodes on the ecliptic, and these go through an 18.6-year cycle, the same cycle that affects the equinoctial tides, including those that run up rivers. The chances are slim that the eulachon cared, but I bet at least one of the megalithic monument builders in Europe would have. ◇