# Anthropology

**UDC 212** 

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# HORNED HUNTER — SHAMAN, ANCESTOR, AND DEITY

There are numerous depictions of antlered figures in the rock art of prehistoric Eurasia and many representations of horned humans in the Far West of North America. These antlered and horned individuals have in some cases been interpreted as wearing animal headdresses. Headdresses with deer antlers are recognized archaeologically in Mesolithic Europe. A prehistoric bighorn sheep headdress has been discovered and dated from Utah in the United States. Also there is historic ethnographic evidence of deer and bighorn sheep headdresses/disguises for Siberia, northern Europe and North America. We propose to compare these data and review similarities and differences in these cultural traditions. We highlight comparative data regarding their age, and associated animal ceremonialism in indigenous religious expression.

*Keywords*: ethnoarchaeology, prehistoric religion, rituals, shamans, cult of the deer, cult of the bighorn sheep.

#### Introduction

Our attention to Native rituals, costumes, and disguises of deer and bighorn sheep is in part determined by their great ideological significance. These are "indexical" animals, who are important symbols in the aboriginal prehistoric hunting world outlook and have survived in Native ideology to the historic era (Bretts et al. 2015). Like the bear, bison, wolf, and jaguar, these animals are portrayed in the figurative arts of various indigenous communities and become metaphors for Native religious ideology. These animals are included in the circle of the most honorable and sacred creatures, such as the topmost predators, especially dangerous animals, and as central foci in the hunt for large game. The symbolic significance of deer and bighorn sheep is connected with both their magnificent appearance and their significant roles in Native economy and religious agency.

These prominent animals often have special characteristics in form that make them amenable to human disguise and adornment. People imitate their "faces" for hunting and include their visage in rituals involving "hunting magic" and fertility ceremonies (also known as increase rites) [Garfinkel 2006]. This connection between humans and animals forms the basis of shamanistic and totemic sacred narrative.

### **Deer Cults**

# Age and Geography

The term "deer", as employed in this paper, is intended in a rather broad and synthetic intent. In this study, we mean a member of the Cervidae family, which consists of 51 individual species. The most important of the deer cult species are Megalocerus, red deer, (Cervus elaphus), reindeer (Rangifer tarandus), elk (Alces alces), fallow-deer (Dama dama), and roe deer (Carpelous carpelous). Appearance and size of these animals differs greatly, but the subject of the overarching cult discussed here is not restricted to a specific natural animal, but refers to its supernatural hypostasis (underlying or essential nature). So, the Cervidae family comprised different species constituting one semantic series and were exchangeable. For example, the term bugu in the languages of many Northern and Central Asian peoples means reindeer, elk, and horse, and simultaneously, supreme being, god, nature, and heaven (Mykhailova 2017:23).

A deer/elk cult had apparently formed and had its maximum development in the Northern Eurasia Mesolithic (after 12,000 years ago), as a result of its growth and central importance in the European and Northern Asian Native hunter economy. It appears most clearly in prehistoric art. In particular, in the Iberian Peninsula, Mesolithic art of the deer has one of the leading places in scenes we

believe mostly reflect totemic and shamanic myths and/or rituals. There are also found anthropozoomorphic (animal-human conflations) figures appearing with antlers (fig. 1) (Dams 1980: 475–494). In northern Eurasia, the deer/elk subject is one of the predominant depictions in both portable and rupestrian rock art.

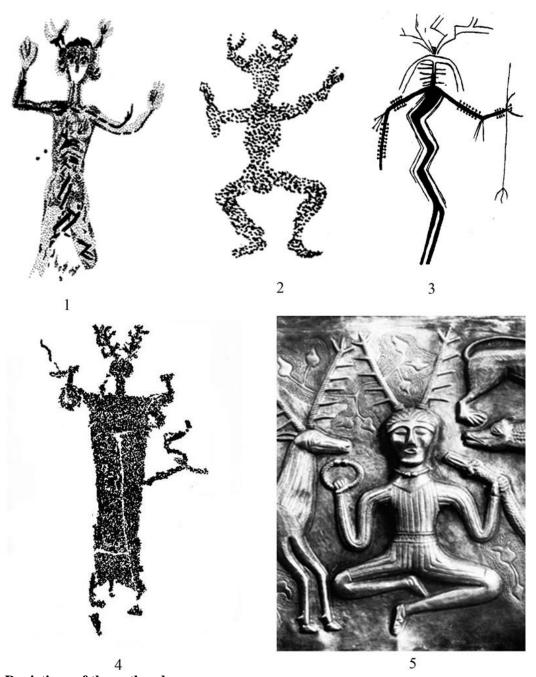


Fig. 1. Depictions of the antlered men:

- 1, 2 Spain, Neolithic; (Dams 1980); 3 Bhimbetka, India, Mesolithic (Datta 2002);
- 4 Valcamonica, Bronze Age (<a href="https://www.pinterest.com/pin/132222939029830796/">https://www.pinterest.com/pin/132222939029830796/</a>);
- 5 Celtic god Cernunnos (Ross 1967).

Independent archaeological evidence also points to the existence of related rituals associated with veneration of the deer. There are well known deer masks from Starr Carr, Hohen-Viheln, Plau, Berlin-Birsdorf and Bedburg-Konigshoven (Gramsch 1982: 433; Keiling 1985:34; Schuld 1969; Street 1989: 45–48) (figs. 2, 3 and 4).

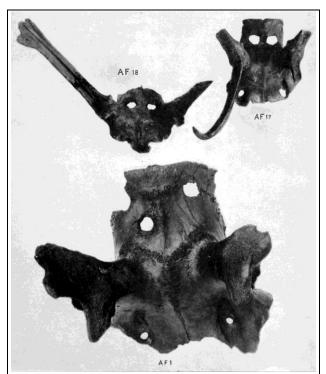


Fig. 2. Deer frontlets, Star Carr, Mesolithic (Clark 1954).



Fig. 3. Deer frontlets from European sites. 1 – Hohen-Vicheln, Germany, Mesolithic (Street 1989); 2 – Eilsleben, Germany, Neolithic (Pratsch 2004); 3 – Bedburg-Konigshoven, Germany, Mesolithic (Street 1989).

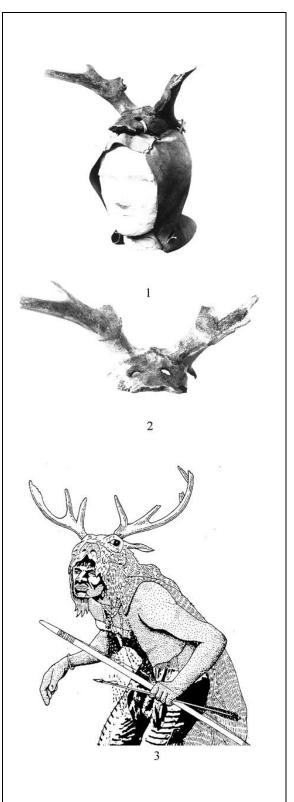


Fig. 4. Reconstructions of the hunting headdresses and deer frontlets from Star Carr site (by Tromnau 1991, by Conneler 2003).

## Methods for Creating the Deer Headdress and its Function

Deer headdresses were typically made from stag frontlets with antlers and skin. Frontlets were smoothed and intended to be worn on the head. The garment has specially drilled holes for straps to attach them to the head. There are two hypotheses about the use of these deer frontlets. G. Clark supposed, that stag frontlets were used for both hunting and ritual dances, were designed to improve the hunter's luck, to increase the fertility of the deer herds, and/or to promote reproduction in general. He also connected masks with human burials and antlers.

He mentioned *Cernunnos*, depictions of Tungus shamans and the related Horn Dance that is known for medieval Staffordshire (Clark 1954:169). M. Street, the investigator of Bedburg-Konigshoven, interpreted deer frontlets as shamanic attributes (Street 1989: 44–53). G. Tromnau has the same opinion. He compared frontlets with Siberian shaman headdresses and depictions of the "antlered man" at Trois Freres (fig. 5) and Hohle Les Espelugues and Astuuvansalmi in Finland (fig. 6) (Tromnau 1991:25–27).



Fig. 5. The "Sorcerer" from Trois Freres Cave, France, Upper Palaeolithic (Clark 1954).



Fig. 6. Rock depictions of the horned human and the elks. Astuvansaalmi, Finland, Neolithic (Sarvas 1969).

C. Conneller and E. Schadla-Hall pay great attention to the sacred aspect of the activities of the Starr Carr inhabitants. According to these researchers, eating meat and treating skins and horns of deer encouraged people to feel an intimate sense of identification with deer. Deer masks "the faces of the beast" allowed people to "transform" into animals and to reflect on the character of the interrelationships between humans and animals (Conneller and Schadla-Hall 2003:103).



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Fig. 7. 1 – Californian Indians hunting disguise (Avdeev 1959); 2 – Native American deer hunting, engraving, Northern America, 18th century (Clark 1954).

O. Yanevich and L. Zalizniak hold an alternative opinion, also formulated by G. Clark, that deer frontlets were also used for stalking (Yanevich 1990:104–106; Zalizniak 1991:7). O. Yanevich suggests that hunting deer with a disguise was an integral part of the economic and cultural elements of forest hunters, due to several factors: specific peculiarities of the ecology and behavior of deer, necessity of such hunting equipment, and hunting conditions in closed landscapes (Yanevich 1990:104, 106).

Ethnological evidence from Siberia and Northern Europe may be some of the best available data for understanding the functions of deer frontlets. Many traditional peoples used a deerskin and antlers for hunting (fig. 7) (Birket-Smith 1929:107; Clark 1954:169; Kroeber 1970:158). This camouflage is based on knowledge of the physiology and behavior of the deer, its short-sight, and trusting nature. In preparation for the hunt, the hunter first liquidated his natural smell and then dressed in a hide and antlered mask (Kroeber 1970:158). Sometimes he decorated his breast with white paint and imitated deer sounds. The hunters of in both Siberia and North America used somewhat similar methods.

K. Birket-Smith described the hunting patterns of Caribou Eskimos: "In mating time, when the bulls fight, the hunter sometimes carries above his head a pair of antlers and in the same time imitates the grunting of animals..." (Birket-Smith 1929:107). Boas quotes the statement by J.C. Ross, reported from Native consultants in 1835, that "the inhabitants of Boothia [a peninsula in Northern Canada] imitate the appearance of the deer (reindeer), the foremost of two men stalking a herd wearing a deer's head upon his own..." (Clark 1954:169). Hunters, camouflaged in deer skin, executed some sacred ritual activity specifically intended for the attraction of game preceding the hunt. Such hunting ritual practices are known from the Zulu (Southern Africa): "Before the hunt began, the chief of the hunters knelt, put grass into his mouth and imitated deer, eating the pasture" (Bryant 1953:330).

Speaking generally about ancient cognition, we should consider the phenomenon of "participation", described by L. Levi-Bruhl (1934). An important method of primeval systematization of the world is the idea of binary opposition between people and animals, and concepts related to both life and death (Bayburin 1990:3-6; Levi-Strauss 2000:157). The spiritual representatives (ritual adepts, shamans) were the key class of humans who accessed both worlds (the human plane and the supernatural or spiritual realm). The ritualists could cross the frontier from one world to another to transform from the status of a human person to the status of an animal. For this transition they had to put on their clothes (a hide, a headdress) or remove such a costume taking off their ceremonial/ritual garb (Avdeev 1959:54).

# Hunting

During hunting ceremonies, Native peoples used deer hides and antlers for making masks. Before beginning the hunt, men, dressed as deer, imitated the deer's movements to bring successful hunting. Considering this feature of animistic thinking to the indigenous, we would argue, that people dressed as deer, felt like deer, and so realized their special relationship with the deer. They became beings of double status, mediators between people and animals, and a spiritual tether to both the living and the dead. They gained access to the power of the animal's world. When experiencing deer rituals and donning the garments associated with deer ceremonies, this was a time, when the sacred stories about the animal-human (The Deer) connections became a reality. This mindset and perspective was in part the basis for recognizing a common animal-human ancestry for the people.

Deer frontlets, which were created for stalking hunting, were then also used to imitate the behavior of the deer in the ritualist's rebirth and renewal rituals. After the killing and eating of the deer, hunters put their bones on platforms, or put deer heads with antlers atop poles (Anisimov 1958:26–37; Dolgich 1960:74–80).

#### Rituals

Ethnographic descriptions also document that there were totemistic rituals focused on deer reproduction. During those ceremonies participants dressed as deer, imitated deer coupling (reproduc-

tion), then killed and ate the sacral animal, and buried their bones and antlers in sacred places or caves for the future regeneration of the deer (Charnolussky 1966:310–311; Charusin 1890:340–383; Mykhailova 2008, 2016; Uspensky 1979:36–40).

Using the deer masking during the hunt, the hunter not only changed his appearance, he was re-embodied into the animal. He was able to subconsciously feel like a deer. The collectivity of rituals, rhythmical music (the rhythm of tambourine can reach 200 beats a minute), and possible use of narcotic (psychoactic) plants, provoked trance. The performer fixed in their subconscious his re-embodiment with the deer. The hunter in the deerskin cloak and frontlet headdress "transformed" from the world of people into the animal world. He became a creature of double status. He took on an independent power of the animal world (Levi-Bruhl 1936:66). He became the chief mediator between these worlds. The parallel mediator was perhaps at times the mythological totemic ancestor – the mutual ancestor of people and animals. He was a representative of the "other" world, a supernatural being, an ambivalent creature, with the features of people and animals (Petrukhin 1986:10).

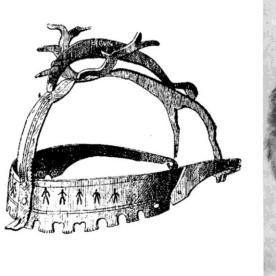
#### **Shamans**

The central participant of these rituals is the shaman or ritual adept. The shaman's costume reflects his connection with the deer. His coat/parka was made of deer hide, there were also small iron antlers on its shoulders – the main element of the costume (fig 8).



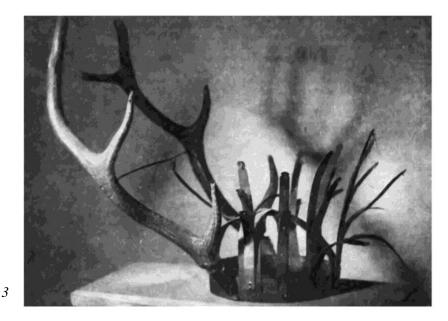
Fig. 8. Siberian shaman. Nenetz drawing, XX century (Prokof'eva 1962).

Initially, real antlers were used, directly indicating similarity between a deer and a shaman. However, the most important attribute of a shaman's costume was the headdress and little iron antlers – a symbol of the shaman's power and strength (fig. 9). By putting on the deer frontlet crown, a shaman acquired the mystical qualities of a heavenly deer (Eliade 1998:121, 123; Potapov 1947; Vasilevich 1953). So, the attributes of the shaman – bows and arrows, a deer's skin and antlered crown, point to the connection of shamanism with the hunter's activity.



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Fig. 9. 1 – The hut of the Udege shaman. Far East, historical time (Ivanov 1954); 2 – Child's hat. Kety, Siberia, XX cen (Alexeenko, 1962, p. 18); 3 – Evenkian shaman's metal crown with deer antlers. Siberia (Okladnikov, 1966).

We believe that the heads of deer with antlers, used for masking, stimulated the development of totemic myth elements about a deer-human as the progenitor of both humans and deer (Mykhailova 2008). The parallel mediator was the mythological totemic ancestor – the mutual ancestor of people and animals. He was a representative of the "other" world, an ambivalent creature, with the features of people and animals (Petrukhin 1986:c. 10). This ancestor could be depicted in a cave, like the famous

"Sorcerer" from Trois Frères (fig. 10) (Clark 1954) or appear as the antlered men in Levantine rock paintings (fig. 1) (Dams 1980:475-494).

# Compound Meanings for Headdress Symbolism

So, we suppose, that deer frontlets didn't have a single, uniform meaning. Probably, the frontlets were items of changeable semantic status. In preliterate, nonindustrial societies, the difference between utilitarian objects and sacral ones is quite minimal. Everything could be used as utilitarian objects, or was at some point in its uselife employed as a ritual symbol (Bayburin 1989:63-89). Frontlets, as symbolic objects, could be used as hunters' masks during hunting, and as cultic accessories during the hunting magic (increase rites) rituals and deer reproduction ceremonies. Probably, human hunters in the deer masks and skins were the prototypes of the more priestly functionaries - shamans.

The use of reindeer horns for people with a special status was also known in the prehistoric mounds of Adena and Hopewell cultures in the Eastern Woodlands of North America. Bender points to the wealth of the buried, whom she calls "priests", and compares them with the graves of Breton (fig. 10) [Bender 1985: 22].

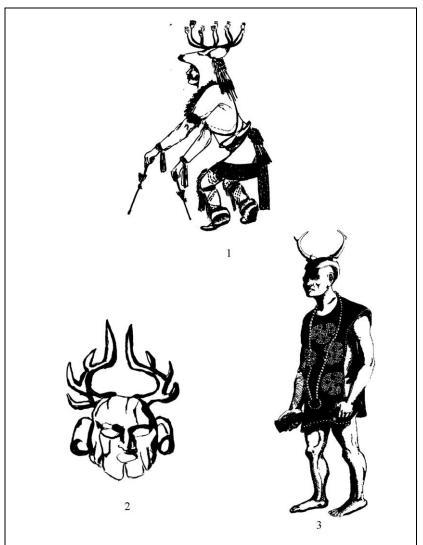


Fig. 10. Evidences of the deer cult in America: *1* – Native American Indian dancer, American Southwest, historical time; *2* – funerary mask, Adena culture (1000 – 200. BC). Northern America; *3* – reconstruction of the "Priests costume" from the Adena culture burial, Eastern Woodlands Culture in North America (Bender 1985).

### Bighorn Headdresses and the Sheep Cult

### Introduction

The bighorn sheep can best be seen as what might be termed an "Indexical Animal" for eastern California, Great Basin, and America Southwest indigenous cultures (Betts et al. 2015). Bighorn are the most commonly portrayed animal in the figurative arts of these Far Western cultures. This is not just a function of their subsistence emphasis but these animals are a key element of the "relational

ontology" and Amerindian Perspectivism of these Native peoples (Vivieros de Castro 1998). Our discussions here are informed by the knowledge that hunter-gatherer societies viewed animals as "other-than-human" persons. It was their habits, habitat, and symbolic ethno-ecology that fueled a complex, contextualized, and integrated framework as indigenous religious symbols.

The term bighorn in the Numic (Great Basin Paiute-Shoshone) languages was employed as a categorical term for all big game animals of the hunt and included pronghorn, deer, and elk – all included under this singular moniker. The term also was related to the morpheme in their language that meant to kill. Hence an ethno-taxonomy is adduced that implied the bighorn as an archetype for the hunting of large game (Goss 1972; Vander 1997). The bighorn sheep was also recognized as a kind of Master of the Animals figure or shamanistic boss of the artiodactyl or ungulate kingdom and was considered an immortal.

# Distribution and Age

The bighorn sheep is distributed in western North America from the Brooks Range in Alaska to southern Baja California in Mexico. There are two major species (without emphasizing the subspecific variability). We have the Rocky Mountain bighorn (*Ovis canadensis*) that inhabits the area from southeastern British Columbia to northern Mexico. The latter includes the desert bighorn which ranges in color from dark gray-brown to a pale buff-beige. The northern counterpart is the Dall or *Ovis dalli*. The latter is recognized in Alaska, the Yukon, and Central British Columbia.

In reviewing the expressions of bighorn sheep ceremonialism, we can recognize a geographically extensive and culturally intensive religious manifestation throughout the Great Basin and into the American Southwest. In the Great Basin there was apparently a fixation on the desert bighorn such that it is the predominant animal image found there in figurative expressions (rock drawings, rock paintings, and split twig figurines). The image of the venerable bighorn sheep is sometimes common if not frequently ubiquitous in the rock drawings in eastern California, Nevada, Utah, Colorado, Idaho, New Mexico, Montana, Wyoming and even into Baja California, Mexico (fig. 11).

The age of bighorn sheep ceremonialism has been considered (Yohe and Garfinkel 2012). Some of the earliest physical manifestations of prehistoric archaeological features associated with religious bighorn sheep animal interments is in the northern Rocky Mountains Region of northwestern Wyoming at Mummy Cave (site 48PA201). This large rock shelter is situated on the banks of the North Fork of the Shoshone River, about 55 km west of Cody. During excavations at this site, Husted and Edgar (2002:39-40) documented a portion of a bighorn sheep skull associated with a purposeful rock alignment. The sheep skull was positioned at the base of a slope, adjacent to three vertical stone slabs. These stone slabs were set in a linear array that created a 1.8 meter long alignment.

Husted and Edgar (2002) argue that the feature and skull constitute a shrine. The feature was dated to about 8,800 BP (about 10,000 years before present with an equivalent, calibrated, calendar age greater than 10,000 years before present) based on an assay from a nearby fire pit feature.

In Central Nevada, there exists a petroglyph site of a bighorn sheep that was dated by experimental x-ray fluorescence [about 10,000 years before present plus/minus 2,000 years - this age was supported by the nearby discovery of a time diagnostic projectile point] (Lytle et al. 2008). In the near vicinity of the site was a Paleoindian Western Clovis style projectile point. Clovis Style points date from about 10,000 to 13,500 calendar years before present (Moratto et al. 2018). X-ray fluorescence dating of the simple bighorn sheep images on rock canvases in the Coso Range in eastern California provide an age for these drawings beginning about 10,000 years ago (Lytle et al. 2008; Rogers 2010).

Bighorn sheep depictions continue to occur throughout prehistory but appear to be most frequent in a small portion of the Coso Range of eastern California where researchers estimate that no less than 25,000 individual drawings of the animal occur in an area of about 100 square miles (fig. 12). In that region, the expression of intensive bighorn sheep religious activity appears to have had its greatest proliferation during the Middle Archaic Period from ca. 2000 BC to AD 1000. We believe that during this period of prehistory throughout the Great Basin and Far West Native people manifested an expression of wild sheep religious intensification that was fairly consistent in producing what Ake Hultkrantz termed a "Hunting Religion" (Hultrkrantz 1981).



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Fig. 11. 1 — Bighorn sheep images, life size in Big Petroglyph Canyon, Coso Range, China Lake Naval Ordnance Testing Station, Ridgecrest, California. Site is located in eastern California, Mojave Desert, in the southwestern corner of the Great Basin, North America. ca. AD 1000-1300 Photographed by AG. 2 — Nine Mile Canyon, Utah, North America. Bighorn sheep headressed hunter/shaman engaged in a hunt with bow and arrow hunters with many bighorn sheep depicted including rams, ewes, and lambs. ca. AD 600-1300. Photographed by Marissa Molinar. 3 — Bighorn sheep pictograph as an element of the Great Mural Rock Art Tradition, Sierra de San Francisco, Baja California, Mexico. ca. 3000 to 5000 BC Photographed by AG.



Fig. 12. Bow and arrow hunter with bighorn. Hunter appears to be wearing a bighorn sheep-horned headdress. Phallic human with human formed feet. Dates to the Haiwee Period (ca. AD 1 to 1300) Sheep Canyon, Coso Range, California. Alan Garfinkel photograph.

### Methods for Creating a Bighorn Sheep Headdress and its Function

Fortunately, we have a recent study that provides a somewhat detailed description of an archaeological example of a bighorn sheep horned headdress. That headdress was discovered in the Green River Region of Utah and was for a time exhibited at the Eastern Utah Museum near the city of Price and has been extensively reported and dated (Garfinkel et al. 2019; Matheny et al. 1997:73). This headdress (fig. 13) compares favorably with others identified in historic accounts and photographed during Native American religious ceremonies. Other bighorn sheep headdresses are identified in other archaeological accounts and also exist in private collections (Garfinkel et al. 2019).

The Green River bighorn sheep horned headdress was fashioned by employing solely the horn sheath and not the horn cores themselves. By dividing these horn sheaths in half, it minimizes their weight. The sheaths were then sewn to the skull for attachment. For the Green River headdress, *Olivella biplicata* shell beads were added (Garfinkel et al. 2019). The bighorn headdress based on ethnographic testimonies, historic photographs, an example in a private collection, and archaeological discoveries appears to have at times been worn with a hood of animal hide. It has been hypothesized that the headdress could have served either as a specialized ceremonial accounterment or in a more limited and utilitarian context as a hunting disguise (Matheny et al. 1997:73, Figure 3). Thus, it could have been employed having both a ritual and a more practical function.

Further examination of the headdress corroborates that the horn sheaths are key elements. They have been split lengthwise leaving over half of the sheath and maintaining the appearance of a complete horn when viewed from the front. The cut edges have been smoothed in most places and exhibit polish. The horn sheaths expand near their base, providing a nearly complete circumference around the horn core on the cranium.

The cranial element itself includes the base of the horn cores and the portion of the skull between the horn cores. Some of the lateral portions of the right horn core for the Green River headdress are missing, though it is unclear if this occurred during manufacture or post-deposition. The base of

the portion of the cranium between the horn cores is roughly cut. The upper portions of the horn core interiors have been cleaned and overlap the base of the horn sheaths by two or more centimeters. There are numerous drilled holes on the cranium and horn sheaths with the characteristic taper associated with stone drill bits. Though most of these are along the front margin of the cranium and horn sheaths, there are also two holes along the back of each horn. The cordage used to attach the horn sheaths and shell beads was microscopically corroborated as milkweed (*Asclepias* sp.) fiber.



Fig. 13. 1 — Bighorn sheep horned headdress as it appeared on display at the Eastern Utah Museum in Price, Utah. Note six Olivella biplicata (purple olive shell) beads. Those beads were strung with milkweed cordage. Headdress dates to the Fremont Tradition ca. AD 1050 (based on an AMS radiocarbon determination of the milkweed cordage attached to the beads and indicated by the temporally sensitive typological distinctiveness of the Olivella beads [split-punched type] dating to precisely this same time span). 2 — Reverse of horned headdress as documented by the Eastern Utah Museum Director, Tim Riley. Scale in cm (centimeters). Base of headdress is 13 cm in width. Horns from tip to base measures 53 cm.

For the Green River headdress, the horns were those of a relatively small animal and appear to be either a Rocky Mountain bighorn or perhaps a small or young Desert Bighorn with a one-half to two-thirds curl. Radiocarbon dating of the Green River headdress' Native twine and the chronological placement of the shell beads provide a date of ca. AD 1050 (Garfinkel et al. 2019).

### Hunting

Bighorn sheep mate in the late summer and early fall and that is their rutting season. This is the only time of year when the ranges of rams, ewes, and yearlings coincide (Geist and Petocz 1977; Matheny et al. 1997). During other parts of the year, ewes and yearlings occupy different habitats and rams congregate in "bachelor herds". The rutting season is considered one of the best times to hunt bighorn, as they are most vulnerable to predation (Matheny et al. 1997). Moreover, the animals are fattest during the fall as they prepare for a less verdant environment during winter. They are also less wary, because it is a time of considerable tension when rams are intent on breeding.

Aboriginal people were well aware of the highly predictable rutting season. During this season rams vie for top breeding rights. Headlong, thunderous clashes could be heard echoing in the canyons during dominance displays by competing males. This was when rams lose their "competitive edge" and are less wary. At this time human hunters and mountain lions would have hunted more successfully since rams were especially vulnerable.

Bighorn hunts were conducted in a variety of ways (Annell 1969; McGuire and Hatoff, 1991; Stewart 1941:367). These include communal hunts, surrounding sheep, driving them into enclosures (v or wing traps) or nets, guiding the sheep with fire and dogs, and running the sheep past hidden hunters concealed within hunting blinds (Stewart 1942:242). Stewart notes that hunters would also occasionally make loud noises—pounding objects together to imitate the clash of rams in battle.

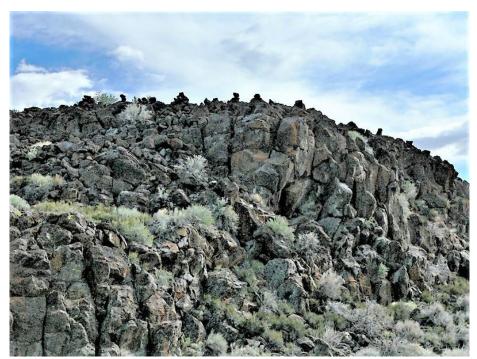


Fig. 14. Dummy hunters of stone made of stacked basalt cobbles above Upper Renegade Canyon astride a lava flow in the Coso Range, western Mojave Desert, North America. Alan Garfinkel photograph.

Dummy hunters (fig. 14) are found along some of the canyon rims where bighorn sheep were hunted prehistorically. These are not isolated features but rather multiple collections of stacked rock sculptures serving as figurative hunters. Such decoys were used by Native hunters in many areas of North America. Such stone features are known in eastern California (particularly in the Coso Range) and in Nevada (Heizer and Hester 1974), where they are located just above game trails and water sources (Grant et al. 1968).

We also understand from the Coso Range that some wild sheep hunting panels exist that illustrate dogs being used to aid hunters in their efforts to slay the bighorn (fig. 15).

Some traditional Great Basin Paiute and Shoshone songs were also employed as a means to lure and attract large game animals. By singing songs, a ritualist could capture the souls of the animals and draw power from them. By singing and speaking over the animals and dancing in imitation of their movements, the animals were more easily killed and were already tired and docile when the hunters finally met up with their quarry (Sapir 2002:212; Vander 1997:221, 487).

Some Southern Paiute bands would sing to attract sheep, or have a feast and gather around the singer in a partial circle. They would lay bows

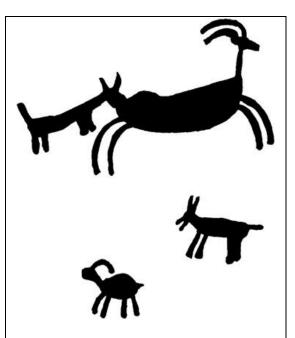


Fig. 15. Dog attacking a bighorn sheep in the upper portion of the panel. Lower right another isolated image of a dog note the rounded paws, short ears and short tail. Pen and ink sketch fashioned by AG. Images from Sheep Canyon, Coso Range, western Mojave Desert, California, North America.

across their bellies and drape their arms over them, bending their arms and holding their fingers in front of them, representing sheep hooves, and marking time to the music. They also had dancers who would jump and mimic bighorn sheep behavior. Mountain sheep dreamer-singers would direct hunters to the place where they could hunt and slay the sheep.

#### Rituals

#### Great Basin Paiute and Shoshone

A Northern Paiute pre-hunt dance and song were traditionally performed by animal-human spirits: Crow, Eagle, Wildcat, Yellow-hammer, and Big Rat (Lowie 1924:214; Vander 1997:220). These supernatural animal-humans danced and sang a song saying, "I am going to shoot mountain sheep."

A coming-of-age, puberty rite is ethnographically described in which Numic boys were required to kill a mountain sheep, deer, or pronghorn as a mark of their formal entrance into adulthood (Steward 1941:256). Myers (1997) identified distinctive and recurring relationships between hunting big game animals and human sexual reproduction. He argued that to reach male maturity and be permitted to marry, it was necessary to hunt and kill big game animals (fig. 16).

Northern Paiute ritualist doctors dreamed of "mountain sheep which gave power to suck out and blow away disease" (Steward 1941:259) and the Southern Paiute had "game-dreamer" songs and dances that had special importance in hunting bighorn sheep. These "dreamer-singers" would dream about killing game, foods eaten by bighorn sheep, rocky places, rain, bows and arrows, and sometimes "arrows turning into male mountain sheep" (Kelly and Fowler 1986:384-385).

In Southern Paiute dreams, a bighorn song was provided as a gift from the sheep. The songs were intended as a means of enhancing the killing of game, and game animals became attracted and increased in number with the proliferation of game food furnished by the rain. The rain, in essence, brought the game.

In her discussion of Chemehuevi shamanism, Kelly (1936:138-142) similarly identified a class of ritual specialists known as "sheep dreamers", who were especially adept at charming game animals for the hunt (Hedges 2001:131). The sheep dreamers/game charmers had visions of rain, and used bullroarers, and they wore a cap of mountain sheep hide (Kelly and Fowler 1986:372, Figure 2; Laird 1974, 1976).

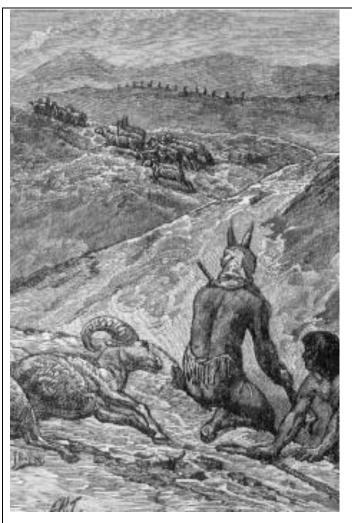


Fig 16. Paiute bighorn hunter, lithograph from "Mountains of California" by John Muir, 1894.

Hunter is adorned with a bighorn sheep head-dress / hunting disguise. Horns and hood can be noted in the engraving.

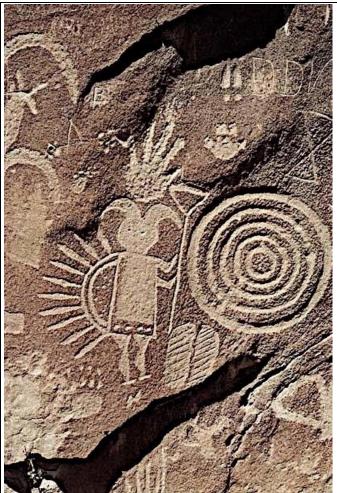


Fig. 17. Ghanaskadi petroglyph, historic rock drawing by the Navajo, Largo Canyon, New Mexico, North America. Photograph by Marissa Molinar, 2014.

### Hopi

The Hopi of the American Southwest have a secret society or sodality known as the *Ahl*. *Ahl* members wear the involuted horns of the mountain sheep on their heads and this fraternity directs the November New Fire Ceremony (fig. 18). This horn society (*Al*, *Ahl* or *Ala*) or hunters' society is called *Shayaka*, *Sayaikha*, or *Shayaika*, or something similar, *Sutikanne* in Zuni. These men's fraternities were responsible for initiations that brought men to adulthood.

The Horn Chief (leader of the *Al* or Two Horn Society) and all members of the society wear the headdress of the bighorn sheep and light the kiva fires. The deity represented is known as *Alosaka* or *Muy'ingwa*. They re-enact the Hopi emergence into this dry, fourth world, and they solicit the ancestors for rain, health, abundant harvests, and also feast in honor and reverence for their ancestors. This ceremony is also associated with a rite of passage for young Hopi boys to become

### Navajo

The Navajo of the Governador District in northern New Mexico have an important deity known as *Ghanaskidi* (Reichard 1950). This god is in charge of the harvest, plenty, mist, and bighorn sheep and makes these resources available to the Navajo people. *Ghanaskidi* is one of the most frequently depicted deities in the Navajo pantheon both in rock art and in sand painting (fig. 17). Bighorn horns grow from his head or alternatively the deity wears a bighorn sheep headdress.

Ghanaskidi is the owner/controller of bighorn sheep (an Animal Master archetype) and plays a prominent role in sacred narrative as a "humpback" deity bearing the seeds of all vegetation and controlling mist. Rock art imagery from Largo Canyon depicts this immortal with a staff (digging or planting stick) and eagle-feathers that adorn his humpback or backpack. The figure is further embellished by a rainbow rendered on his back.

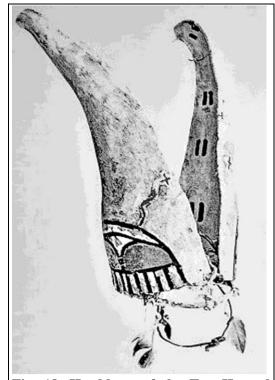


Fig. 18. Headdress of the Two-Horned Society.

men. So this is symbolic of both the beginning and renewal of life. At the close of the ceremony, four *Al* society members reverse their horned headdresses, build bonfires, and again mimic the behavior of bighorn sheep (Titiev 1992).

### Eastern Pueblo

A repeating theme in the Eastern Pueblo Indian literature, for Isleta, Santo Domingo, Santa Ana, Zia, Santa Clara, San Felipe, Laguna and others in New Mexico in the American Southwest, is that the leader of the local hunter's society is responsible for the successful reproduction of game animals, which usually included bighorn sheep (Ortiz 1979). Traditional Pueblo cultures also had other rituals to ensure fertility, organize and bless hunts, and pray for a successful hunt. Several had a "Buffalo Dance" with dancers in buffalo, antelope, deer, and bighorn sheep headdresses.

Sometimes ceremonies were associated with Mountain Lion or Coyote, and there were versions at the pueblos of the Hopi and Zuni. Dress for these dances often required ceremonial regalia that included headdresses with the horns and antlers of various large game animals including bighorn sheep.

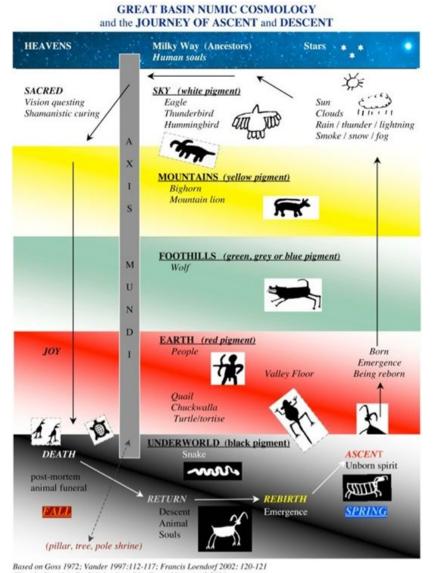


Fig. 19. Numic (Great Basin Paiute and Shoshoni) cosmology is envisioned as a layered universe with the associated principal metaphors as summarized in this figure developed by AG based on discussions of Numic religious cosmology provided by Goss (1972), Loendorf (2002), and Vander (1997).

## Compound Meanings and Religious Symbolism

Entertaining a number of informed speculations, we can suggest the following potential "root metaphors" and religious symbolism embodied by the bighorn headdress. Horned headdresses and hunting headgear are recognized in foraging cultures and are a typical element of the shaman's ritual costume.

Referencing discussions about religious metaphors for such ritual adornments one would hope to find direct ethnographic or historic contextual information within the Great Basin or American Southwest. However, worldwide much of the interpretive efforts are focused on Siberia - the homeland and origin point for the identification and understanding of shamanism. Additionally, an analog might be found with similarities in the religious ecology of the desert foragers in Southern Africa among the San Bushmen.

Ekaterina Devlet (2001), in describing ritual headgear in Siberia, alludes that many compound metaphors for the shaman's ritual costumes might apply. Additionally, we have much material provided by Esther Jacobsen (1993:173-190) on Siberian ritualism and a related discussion concerning various clothing elements with respect to symbolism and signification.

In general, the ritualist adornments (especially the headdress) "effectively represent a reassignment to themselves of the signs and symbols of an ancient pantheon formulated in the bodies and powers of sacred animals" (Jacobsen 1993:173). Jacobsen reminds us that by donning the animal headdress, the ritualist became the animal itself and was reborn into its body and knowledge. Eliade (1972) spoke of a ritual adept's costume as representing "a religious microcosm" and Jacobsen (1993) emphasized that such dress was a testament to this animal-human conflation and the power invested in the *generative* forces of nature.

In that vein, a horned headpiece was said to symbolize, in part, the bones of the ancestors (perhaps as a metaphor for the shamanistic ancestor deity that was in some cases a bighorn sheep animal-human totem) and a source of life (cf. Coulam and Schroedl 2004; Garfinkel et al. 2016). The headdress was a means of protecting the wearer in the course of his or her dangerous religious activities. The horns further represent a link similar to branches of a tree or roots of a plant connecting one to an ancestor-ritualist such as might be engendered by a family tree (or perhaps a metaphor relating to the tree of life [axis mundi]). The horns would also imply the loss of a former animal nature and the adoption of a new meaning showing a connection with a number of animal-helping spirits. Further, the horns were directly indicative of the wearer's supernatural power.

Recent research (McGranaghan and Challis 2016: 591) on San Bushman ritualist hunting and its relationship to head adornments suggests that wearing animal caps presupposes an intimate and reciprocal relationship with game animals. Only ritualists, who "possessed" such animals, were entitled to wear these vestments. These specialists were the specific ritualists who possessed the superlative skill to lure an animal to the hunters for the kill. Employing such an adornment was recognized as a type of "hunting magic" (McGranaghan and Challis 2016: 594) symbolically echoing the wearer's ability to influence game animal behavior.

With its habitat in the elevated crests of high, often rugged mountains, the bighorn sheep typically occupies an uppermost frame in the minds of native people of the Great Basin and the American Southwest (cf. Goss 1972; Myers 1997:44; Nissen 1995:72). Myers (1997:44) concludes that bighorn sheep served as a topmost symbol and religious metaphor to many indigenous Great Basin people due to their association with mountain peaks (fig. 19). The power and energy of the universe is often concentrated in these uppermost realms. These are typically places of awe and majesty and homes of immortals (Miller 1983:70).

## **Conclusions**

The comparison of common features of animals with great symbolic significance from such distant territories as northern Eurasia and America allows us to recognize some of the more universal features of the hunting religion mytho-religious complex. Origin and development of the cult of the deer in Northern Eurasia and the cult of the bighorn sheep in North America correlate with the increas-

ing economic and symbolic roles for these animals. The ideological and conceptual metaphoric significance of both these animals was so important, that they spread their semantic field (their cognitive symbolism) onto the other big game animals – that is why people called them frequently under a singular moniker (the same names).

We can assume that deer frontlets and bighorn sheep headdresses were adornments with complex semantic status. In the profane sphere of life they served as hunting aids to track quarry with greater stealth. Under the conditions of religious metaphor in shamanism and totemism, the human acceptance of the likeness of the animal and the imitation of its behavior caused a sense of identification of the hunter with this animal. The temporary "transition" from the world of people to the world of animals is a central element of this symbiosis. During rituals, the semantic status of the headdress grew, with the hunter/ritualist realizing themselves as being of a "double nature", mediators between the world of people, the world of animals, and the world of a celestial, deific universe. Finally, after distinguishing the category of certain people, who had a monopoly on communicating with representatives of the "other" world (shamans and ritual adepts), these ritual embellishments, as attributes of these persons, turn into adornments and sacred regalia with the highest religious status.

Common features of using the deer and bighorn are very impressive. Preparing the parts of the

skulls (the horns or antlers), the hunters tried to minimize their weight and to smooth the surface for the wearer's comfort. Also they made holes for attachments and adornments to the headdress (shell beads, leather hoods, etc.) Siberian people as well as Californian, Great Basin, and American Southwest Indians used frontlets or antlers for the imitation of the animal's behavior – such objects were likely included in reproductive rituals and rites of passage. There is also an expressive connection between hunting, hunting imagery and human sexual fecundity and game fertility (aka reproductive symbolism) (Garfinkel et al. 2011).

The difference is, that bighorn sheep headdresses might have been used by a variety of members of community. It appears that in Siberia only shamans of higher status wear the metal antlers of the deer. But the Siberian and *saami* peoples also used deer antlers for the imitation of the coupling deer as a hunting aid.

So, deer ceremonialism is largely isomorphic in many ways to the bighorn ceremonialism of eastern California, the American Great Basin and in the prehistoric and historic Southwestern United States.

Evidence of a hunting religion and its related symbolism, art forms, and agency is very important



Fig. 20. Havasupai, Guardians of the Grand Canyon and Ram Dancers. Contemporary photograph, Native people of Arizona who live at the bottom of the Grand Canyon and dance and sing to revere their ancestral relations with the bighorn sheep. Note the headdresses of the bighorn fashioned from paper mache to mimic the natural horns of the wild sheep.

to our understanding of the ancient rites and images, nested in the archaeological record and in some rare instances surviving even into modern times (Figure 19).

We can learn from the hunter their techniques of employing the disguise and study the implications of the imagery and symbolism as it is employed in relationship to these key animals. One can also discern the relationships of this form of animal ceremonialism to the principal fertility rituals and increase rites. We can also compare them with artistic depictions on stone canvases that leave little doubt of their importance in religious and shamanic functions.

Images of the antlered humans in Eurasia and horned figures of North America point to the existence in the hunter's sacred narrative for certain animal-human personages, who were mediators between worlds and were a means of metaphorically identifying these figures as their shamanistic ancestor deities. The ritualist mediators, were capable of transiting the boundaries of the natural world to visit the world of Animals and the world of the Dead (cf. Goss 1972).

The ethnological and archaeological comparison of the Eurasian and American animal head-dresses provide evidence on the nature of spirituality for these cultures. Such studies, centering on key ungulates, opens new opportunities for illuminating the ancient hunter outlook and the intimately related subject of comparative indigenous religious cosmology.

#### References:

Alexeenko E.A. 1967. Kety. Moskva: "Nauka".

Annell B. 1969. Running Down and Driving Game in North America, Studia Ethnographica Upsaliensia, 30.

Avdeev A.D. 1959. Proishozhdenie teatra. Moskva.

Bayburin A.K. 1990. Ritual: svoe i chuzhoe. In: Folklor i etnografiya. Problemyi rekonstruktsii faktov traditsionnoy kulturyi. Moskva.

Birket-Smith K. 1929. The Caribou Eskimos. Copenhagen.

Brayant A.T. 1953. Zulusckiy narod do prihoda evropeytsev. Moskva.

Clark J.G.D. 1954. Excavations at Star Carr. Cambridge.

Conneller C., Schadla–Hall T. 2003. Beyond Star Carr: The Vale of Pickering in the 10th millennium BP. Proceedings of the Prehistoric Societies 69:85–105.

Coulam N.J., Schroedl A.R. 2004. Late Archaic totemism in the greater American Southwest. American Antiquity 69(1): 41–62.

Dams L. 1981. La Roche peinte d'Álgodonales (Cadiz). Altamira symposium. Madrid–Asturias–Santander 475–494

Datta A. 2002. Shamanism and the Indian rock paintings. Bollettino del Centro Camuno di Studi Preistorici 32:77–84.

*Devlet E.* 2001. Rock art and the material culture of Siberian and Central Asian shamanism. In N. Price (ed.), The archaeology of shamanism, pp. 43–60. Routledge, London.

Eliade M. 1972. Shamanism: archaic techniques of ecstasy. Princeton University Press.

Elinek Ya. 1982. Bolshoy illyustrirovannyiy atlas pervobyitnogo cheloveka. Praga.

*Garfinkel A.P.* 2006. Paradigm shifts, rock art theory, and the Coso sheep cult of eastern California. North American Archaeologist 27: 203–244.

*Garfinkel A.P.*, *Austin D.* 2011. Reproductive Symbolism in Great Basin Rock Art: Bighorn Sheep Hunting, Fertility, and Forager Ideology. Cambridge Archaeological Journal 21(3):453-471.

Garfinkel A.P., Austin D., Schroth A., Goldsmith P., Siva E.H. 2016. Ritual, Ceremony, and Symbolism of Archaic Bighorn Hunters of the Eastern Mojave Desert: Newberry Cave, California. Rock Art Research 33(7):193-209.

Garfinkel A.P., Riley T., Barlow R., King Ch., Rogers A., Yohe II R., Goldsmith P., Molinar M., Gerstner R. 2019. The Green River Bighorn Sheep, Horned Headdress, San Rafael Swell, Utah. Rock Art Research, in press.

*Geist V., Petocz R.G.* 1977. Bighorn Sheep in Winter: Do Rams Maximize Reproductive Fitness by Spatial and Habitat Segregation from Ewes? Canadian Journal of Zoology 55:1802–1810.

Goss J.A. 1972. A Basin-Plateau Shoshonean Ecological Model. Desert Research Institute Publications in Social Sciences 8:123–128. University of Nevada Press, Reno.

*Grant C., Baird J.W., Pringle J.K.* 1968. Rock drawings of the Coso Range, Inyo County, California: an ancient sheep-hunting cult pictured in desert rock carvings. Maturango Museum Publication 4, China Lake, California.

- *Gronnow B.* 1985. Meiendorf and Stelmoor revisited: an analysis of late palaeolithic reindeer exploitation. Acta Archaeologica 131–166.
- Gramsch B. 1982. Deutsche Geschichte. Berlin, B.1.
- Hedges K. 2001. Traversing the Great Gray Middle Ground: An Examination of Shamanistic Interpretation of Rock Art. In American Indian Rock Art 27, edited by Steven M. Freers and Alanah Woody, pp. 123–136. American Rock Art Research Association, Tucson.
- *Heizer R.F.*, *Hester T.R.* 1974. Two Petroglyph Sites in Lincoln County, Nevada, University of California Archaeological Research Facility Contributions 20, pp. 1-52.
- Hultkrantz Å. 1981. Belief and Worship in Native America, Syracuse University Press, Syracuse, New York.
- *Husted W.M.*, *Edgar R.* 2002. The Archaeology of Mummy Cave, Wyoming: An Introduction to Shoshonean Prehistory. National Park Service, Midwest Archaeological Center Special Report No. 4 and Southeast Archaeological Center Technical Reports Series No. 9.
- *Ivanov S.V.* 1954. Materialyi po izobrazitelnomu iskusstvu narodov Sibiri HIH nachala HH v. Syuzhetnyiy risunok i drugie vidyi izobrazheniy na ploskosti. Moskva–Leningrad: Izdatelstvo AN SSSR, Trudy Instituta Etnografii, Novaya seriya T. XXII.
- *Jacobson E.* 1993. The Deer Goddess of ancient Siberia: a study in the ecology of belief. Studies in the History of Religions, Volume LV. E. J. Brill, Leiden.
- *Keilling H.* 1985. Steinzeitlicher Jager und Saammler in Mecklenburg. Schwerin. In: Museum fur Uhr und Fruhgeschichte Schwerin.
- *Kelly I.T.* 1936. Chemehuevi Shamanism. In Essays in Anthropology Presented to A. L. Kroeber in Celebration of his Sixtieth Birthday, edited by Robert Lowie, pp. 129–142. University of California Press, Berkeley. 1976. Southern Paiute ethnography. In Paiute Indians II. Garland Publishing, New York.
- Kelly I.T. 1976. Southern Paiute ethnography. In Paiute Indians II. Garland Publishing, New York.
- *Kelly I.T., Fowler C.S.* 1986. Southern Paiute. In W. L. D'Azevedo (ed.), Handbook of North American Indians Volume 11: Great Basin, pp. 368–397. Smithsonian Institution Press, Washington, DC.
- *Kroeber A.* 1925. Handbook of the Indians of California. Smithsonian Institution, Bureau of American Ethnology. Bulletin 78. Washington, D.C.
- Laird C. 1974. Chemehuevi Religious Beliefs and Practices. Journal of California Anthropology 1:19–25.
  - 1976. The Chemehuevis. Malki Museum, Banning.
  - 1984. Mirror and Pattern: George Laird's World of Chemehuevi Mythology. Malki Museum, Banning.
- Levi-Bryul L. 1936. Pervobyitnoe myishlenie. Moskva.
- Levi-Stros K. 2000. Pervisne mislennya. K.
- Lowie R.H. 1924a. Shoshonean Tales. Journal of American Folklore 37:1–242.
  - 1924b. Primitive Religion. Bonni and Liveright, New York.
- *Lytle F.W., Lytle M.,. Rogers A.K, Garfinkel A.P., Maddock C., Wight W., Cole C.* 2008. An Experimental Technique for Measuring Age of Petroglyph Production: Results on Coso Petroglyphs. Paper presented at the 31<sup>st</sup> Great Basin Anthropological Conference, Portland, Oregon.
- *McGranaghan M., Challis S.* 2016. Reconfiguring hunting magic: Southern Bushman (San) perspectives on taming and their implications for understanding rock art. Cambridge Archaeological Journal 26(4):579–599.
- *McGuire K.R.*, *Hatoff B.W.* 1991. A Prehistoric Bighorn Sheep Drive Complex, Clan Alpine Mountains, Central Nevada, Journal of California and Great Basin Anthropology 13(1):95-109.
- Matheny R.T., Smith T.S., Matheny D.G. 1997. Animal ethology reflected in the rock art of Nine Mile Canyon, Utah. Journal of California and Great Basin Anthropology 19(1):70–103.
- Mikhailova N. 2006. The Cult of the Deer and "Shamans" in the Deer Hunting Society. Archaeologia Baltica 7:186–199
- *Myers, Daniel L.* 1997. Animal Symbolism among the Numa: Symbolic Analysis of Numic Origin Myths. Journal of California and Great Basin Anthropology 19:32–97.
- Mykhailova N. 2015. Deer offerings in the archaeology and art of Prehistoric Eurasia. Expression 10: 53–59.
- Mykhailova N. 2017. Cult olenya u starodavnykh myslyvtsiv na olenya Evropy ta Pivnichnoi Asii (Cult of the Deer of ancient Hunters in Europe and northern Asia). Kyiv.
- Nissen K.M. 1995. Prey for Signs? Petroglyph Research in Western Great Basin of North America. In Rock Art Studies in the Americas: Papers from the Darwin Rock Art Congress edited by Jack Steinberg, pp. 67–76. Oxbow Monograph 45, Oxbow Books, Great Britain.
- Okladnikov A.P. 1950. Neolit i bronzovyjy vek Pribaykalya.
- Okladnikov A.P. 1966. Petroglify Angary. Moskva-Leningrad.
- Ortiz A. (ed.) 1979. Handbook of North American Indians, Volume 9. Southwest. Smithsonian Institution, Washington, DC.
- *Petruhin V.Ya.* 1986. Chelovek i zhivotnoe v mife i rituale: mir prirodyi v simvolah mira kulturyi In: Mify, kulty i obryady narodov Zarubezhnoy Azii. –Moskva.

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- *Pratsch S.* 2004. Die Geweihfunde der neolithischen Siedlung von Eilsleben, Bördekreis. In Jahresschrift für mitteldeutsche Vorgeschichte, Halle (Saale), Band 88:167–136.
- *Prokofeva E.D.* 1961. Predstavleniya selkupskih shamanov o mire (po risunkam i akvarelyam selkupov). Sbornik muzeia Archeologii i Etnografii, XX. Moskva–Leningrad: 54–74.
- Reichard G.A. 1950. Navajo religion A study of symbolism. Bollingen Series XVIII. Princeton University Press, Princeton, NJ.
- Rogers A.K. 2010. A Chronology of Six Rock Art Motifs in the Coso Range, Eastern California. American Indian Rock Art 36:23-36.
- Ross A. 1996. Pagan Celtic Britain Studies in Iconography and Tradition. Academy Chicago Publishers, Chicago.
- Sapir E. 2002. Edward Sapir: The Psychology of Culture, A Course of Lectures (2nd edition). Reconstructed and edited by Judith T. Irvine. Mouton de Gruyter, Berlin.
- Sarvas P. 1969. Die felsmalerei von Astuvansaalmi. Suomen Museo. № 76: 5–34
- Steward J. 1941. Cultural element distributions: XVIII, Nevada Shoshone. University of California Anthropological Records.
  - 1943. Culture element distributions: XXIII, Northern and Gosiute Shoshoni. University of California Anthropological Records 8(3): 263–392.
- Stewart O.C. 1941 Culture Element Distributions XIV: Northern Paiute. University of California Anthropological Records 4:361–446.
  - 1942 Cultural Element Distributions: XVIII, Ute-Southern Paiute. University of California Anthropological Records 6(4).
- Street M. 1989. Jager und Schamanen. Bedburg-Konigshoven ein wohnplatz am Niederrhein vor 10000 Jahren. Mainz.
- *Tromnau G.* 1991. Archaologische Funde und Befunde zum Schamanismus. Schamanen. Mittler zwischen Menschen und Geistern. Duisburg:22–40.
- *Vander J.* 1997. Shoshone Ghost Dance Religion: Poetry Songs and Great Basin Context. University of Illinois Press, Chicago.
- Viveiros de Castro E. 1998. Cosmological deixis and Amerindian perspectivism. Journal of the Royal Anthropological Institute 4: 469–488.
- Yohe II R., Garfinkel A.P. 2012. Great Basin bighorn ceremonialism: reflections on a possible sheep shrine at the Rose Spring Site (CA-INY-372), Rose Valley, Alta California. Journal of California Archaeology 4(2): 201–224
- Yanevich A.A. 1990. Hozyaystvo mezoliticheskogo i neoliticheskogo naseleniya gornogo Kryma. In: Kamennyiy vek na territorii Ukrainyi. Kiev.
- *Zaliznyak L.L.* 1990. Rekonstruktsiya pervisnih suspilstv za yih gospodarsko-kulturnim tipom. In: Arheologiya. N 4 : 3-11.
  - 1991. Naselenie Polesya v mezolite. Kiev.

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