
An Ethnological Model for Assessing Social Evolution of Siberian Shamans

Michael J. Winkelman

*School of Human Evolution and Social Change, Arizona
State University (retired)*

ABSTRACT

An ethnological model of magico-religious practitioners and their social predictors is presented to assess Siberian shamans, their sociocultural evolution, and their relationships to worldwide patterns. Features of Foraging Shamans found worldwide distinguish them from other types of ritualists whose distinctive features and associated social conditions illustrate the social evolution of religion. Empirical similarities and differences among Siberian ritualists and with respect to other types of ritualists address long-standing questions about the generality and variability of shamans and their changes across sociocultural evolution. Ethnological data show that the transformation of shamans began with the loss of foraging subsistence and the adoption of intensive agriculture, followed by the consequences of warfare and political integration. Comparison of this sociocultural evolution with Siberian practitioners illustrates parallel transformations from intensification of pastoralism and the dominance of and eventual breakdown of clan structures. The ethnological model provides an interpretive framework for archaeological, historical, anthropological and ethnographic studies and identifies social processes producing changes in Siberian ritual practices.

Keywords: *shaman, priest, ethnological analogy, ethnographic analogy, sociocultural evolution, religion, ritual, shamanstvo, shamanizm.*

Recommended citation: Winkelman M. J. An Ethnological Model for Assessing Social Evolution of Siberian Shamans. *Social Evolution & History*, Vol. 23 No. 1, March 2024, pp. 49–75. DOI: 10.30884/seh/2024.01.03.

© 2024 'Uchitel' Publishing House

INTRODUCTION

The concept 'shaman' entered Western academic discourse through contacts with indigenous Siberian cultures by European scientific expeditions into Russia's hinterlands. The original source of ethnographic information about what came to be known among Western Europeans about shamanism was initially derived from the Tungus (Evenki) speaking cultures, reindeer nomads in widespread communities ranging from central Siberia to the Pacific Ocean. Shamans were not found in modern European cultures, and the Tungus word *saman* was adopted by Russians and others as accounts of Siberian practices were introduced to the Western world, where its use among the intelligentsia of Europe eventually led to its utilization as a global concept. The shaman concept had extensive impacts on Western science, thought, literature and even revivalist nationalist movements and was integrated within comparative religion and anthropology of the nineteenth century (Flaherty 1992; Znamenski 2007; Boekhoven 2011).

Shamanism was a troubling phenomenon from the beginning as observers noted both substantial differences across Siberia in ritualists' practices and beliefs, as well as some substantial similarities of Siberian ritualists with ritualists and their practices in other parts of the world. What were called shamans even within Siberia manifested diversity in practices, traditions and roles and overall significance in community life, including practitioners who performed animal sacrifices for ancestor worship.

Nonetheless, the recognition of similar shamanistic phenomena around the world contributed to an over-application of the term to almost any ritualist. These cross-cultural perspectives on shamans were promulgated by Franz Boas in early American anthropology, based on information provided by Russian ethnographers (Boekhoven 2011). Boas (1910, 1930) proposed a common 'shamanic complex' in Siberia and North America and similarities across various categories of shamans in rituals involving drumming, singing and dancing to enter ecstatic states to cure.

Recognition of similar shamanistic phenomena across the world further contributed to a problem that vitiated shamanic studies from the inception. The term shaman was applied to many very different types of practices and ritualists whose distinct beliefs, characteristics, and social and cultural contexts undermined any notion of a simple universal formula for identifying a shaman. Applied to such a range of

specialists and cultures, it left the meaning of the shaman so general and imprecise that it was a deeply problematic concept. The concept of shamanism became a loose metaphor for ancient religion and primitive irrationality on one hand, and an exceptionally charismatic primordial spiritual and community leader on the other.

The indiscriminate use of the concept of the shaman led to a counter-reaction (*i.e.*, Kehoe 2000; Francfort, Hamayon, and Bahn 2001) that denied a cross-cultural shamanism, instead alleging such beliefs as a Western intellectual appropriation based on a conceptual error. The principal counterarguments to a cross-cultural shamanism as proposed by Eliade (1964 [1951]) that were presented by Kehoe (2000) and others (*i.e.*, Francfort, Hamayon, and Bahn 2001) allege that what is found cross-culturally is highly variable, reflecting local cultural concepts rather than universals.

While Francfort *et al.* recognize the need for a cross-cultural operational characterization of shamans, they do not consider the implications of relevant ethnological research even when they cite it (*i.e.*, Winkelman 1992) in their references. Although Francfort *et al.* (2001) alleged that there is no basis to justify a cross-cultural concept of the shaman, their contributors instead provided evidence for a cross-cultural shamanism (*i.e.*, Le Quellec 2001: 148; even Francfort 2001: 37). These denials of the validity of a cross-cultural concept of shamanism ignore the empirical evidence or distort others' claims, as illustrated in the responses of Clottes (2004), Lewis-Williams (2006), (Pearce 2004), Whitley (2006, 2009) and Winkelman (2010a, 2023a).

At the core of the arguments of Kehoe, Francfort and Bahn is the erroneous idea that the concept of the shaman must be restricted to Siberia, where the word originated. Just as anthropologists have extended terms such as priest, taboo and mana beyond their cultures and language of origin when similar concepts are found in other cultures, such foreign words can and must be extended to convey similar practices found cross-culturally.

But as these critiques have emphasized, the concept of the shaman has been overextended from its original context and applied to such a diversity of ritualists that the word is not useful in identifying a specific type of practitioners nor accurate in implying their characteristics. Critical use of shaman as a conceptual category and etic framework needs to distinguish among types of ritualists rather than lumping them all together. How do Siberian shamans, and in particular the

Tungus *saman*, resemble and yet differ from other ritualists, both within Siberia and cross-culturally?

The interdisciplinary research presented in this article bears directly on these issues, summarizing the findings from cross-cultural studies to provide an ethnological model of magico-religious ritualists and explain how sociocultural evolution produced changes in an archaic shamanic ritual capacity for healing. This article presents evidence for both poles of the longstanding debates about shamanism. First it provides evidence why we should consider some specific concepts of shaman to represent a cross-cultural phenomenon with intrinsic relationships to human nature, a worldwide primordial foraging shamanism based on aspects of humans' evolved psychology. But secondly, not everything that has been called a shaman shares the same characteristics, with diverse and distinct ritualists in more complex societies that ought to be distinguished from the ritualists of foraging societies.

This derived ethnological model reported next is applied to examine regional generalizations about differences among Siberian ritualists to explain both the reasons for differences among them, as well as why they also resemble ritualists elsewhere. Comparing formal ethnological models with regional ethnographic characterizations of Siberian shamanisms provides a framework and basis for explaining longstanding differences in understandings of shamanisms. This research shows a cross-cultural phenomenon of foraging shamanism and substantial divergences from that primordial model which are evident even in historical Siberian data. The comparisons show the usefulness of using ethnological models of shamanism, the need to distinguish shamans from other ritualists, and the bases for similarities many ritualists share that contributes to confusion about their distinctiveness.

A CROSS-CULTURAL STUDY OF MAGICO-RELIGIOUS PRACTITIONERS

A cross-cultural research project on magico-religious practitioners (Winkelman 1986, 1990, 1992, 2010a, 2021b) used a 47-society subsample of the Standard Cross-Cultural Sample (SCCS) (Murdock and White 2006). Each of 115 culturally-recognized types of religious practitioners, thought to have a special capacity for interacting with supernatural beings or power, was individually coded (for data see¹). Their similarities revealed by cluster analysis were used to derive an etic typology represented in the following SCCS² variables:

- Shaman (879)
- Shaman/Healer (880)
- Healer (881)
- Medium (882)
- Sorcerer/Witch (883)
- Priest (884).

While the names for these ritualist types were selected based on the terms commonly used by ethnographers to translate the indigenous concepts and words used to refer to the practitioners of the group, the groups themselves, the practitioner types, were determined through similarities discovered by formal quantitative analyses. Likewise, statistical analyses were used to derive their features, as illustrated in Winkelman (1992, 2010a, 2010b, 2021a, 2021b) and Table 1.1 and 1.2 here.

Table 1.1

**Characteristics of Religious Practitioner Types
(adopted from Author 2021b)**

Ritualist Type	Principal Magico-Religious Activity	Selection and Training	Social and Political Power	Professional Characteristics	Motive and Context
Shaman (Forager Shaman)	Healing and divination. Protection from spirits and malevolent magic. Hunting magic. Cause illness and death	Dreams, illness, and signs of spirit's request. ASC induction, normally vision quest by individual practitioner alone in wilderness	High social status. Charismatic leader, communal and war leader. Makes sorcery accusations. Ambiguous moral status	Predominantly male, female secondary. Part time. No group – individual practice with community. Status recognized by clients	Acts at client request for client, local community. Community-wide ceremony at night
Shaman/Healer (Agricultural Shaman)	Healing and divination. Protection from spirits and malevolent magic. Hunting magic and agricultural rites. Minor malevolent activity	Vision quest, dreams, illness and spirit requests. Training by group. Ceremony recognizes status	Moderate social status. Informal political power. Moderate judiciary decisions. Predominantly moral status	Predominantly male. Part-time. Collective group practice, ceremonies. Specialized role	Acts at client request. Performance in client group

Table 1.1 (continued)

Ritualist Type	Principal Magico-Religious Activity	Selection and Training	Social and Political Power	Professional Characteristics	Motive and Context
Healer	Healing and divination. Agricultural and socioeconomic rites. Propitiation	Voluntary selection, large payments to trainer. Learn rituals and techniques. Ceremony recognizes status	High socioeconomic status. Judicial, legislative, and economic power. Denounce sorcerers. Life-cycle rituals. Predominantly moral status	Predominantly male, female rare. Full-time. Collective training, practice and ceremony. Highly specialized role	Acts at client request in client group. Treatment in client group. Participates in collective rituals with Priests
Medium	Healing and divination. Protection from spirits and malevolent magic. Agricultural rituals. Propitiation	Spontaneous possession by spirit. Training in practitioner group. Ceremony recognizes status	Low socioeconomic status. Informal political power. May designate who are sorcerers and witches. Exclusively moral	Predominantly female; male secondary/rare. Part-time. Collective group practice	Acts primarily for clients at client residence. Also participates in public ceremonies
Priest	Propitiation and worship. Protection and purification. Agricultural planting and harvest rites. Socioeconomic rites	Social inheritance or succession. Political action. Incidental training and/or by group. Ceremony recognizes status	High social and economic status. Political, legislative, judicial, economic, and military power. Exclusively moral	Exclusively male. Full-time. Hierarchically organized practitioner group	Acts to fulfill social functions, calendrical rites. Public rituals
Sorcerer/Witch	Malevolent acts. Kill friends, enemies, neighbors, even kin. Cause illness, death, and economic destruction	Social labeling/accusation. Attribution of biological inheritance. Innate abilities, self-taught or learned	Low social and economic status. Exclusively immoral. May be killed	Male and female. Part-time. Little or no professional organization	Acts at client's request or for personal reasons such as envy, anger, jealousy, greed or revenge. Practices in secrecy

Table 1.2

Characteristics of Religious Practitioner Types

Ritualist Type	Supernatural Power/ Control of Power	ASC Conditions	ASC Techniques and Characteristics	Healing Concepts and Practices
Shaman (Forager Shaman)	Animal spirits, spirit allies. Spirit power usually controlled	ASC in training and practice. Soul flight/journey, death- and rebirth, animal transformation	Isolation, austerities, fasting, chanting, singing, drumming and dancing. Collapse/ Unconsciousness	Soul loss, spirit aggression, sorcery. Physical manipulations, sucking, blowing massaging and extraction. Plant medicines
Shaman/ Healer (Agricultural Shaman)	Animal spirit allies and impersonal power (mana). Spirit control, spells, charms, exuvial and imitative. Power controlled	ASC in training and practice. Shamanic and mystical ASC. Some have soul flight, animal transformation	Isolation, austerities, fasting, chanting, singing, drumming and dancing. Collapse and unconsciousness	Extraction and exorcism, countering spirit aggression. Physical manipulations, massage. Plant medicines
Healer	Superior gods and impersonal power (mana). Charms, spells, rituals, formulas and sacrifice. Propitiate & command spirits	ASC induction limited No apparent ASC	Social isolation; fasting; minor austerities; limited singing, chanting or drumming	Exorcism and prevent illness. Physical manipulation of body, empirical medicine, imitative and exuvial techniques
Medium	Possessing spirits dominate. Propitiation and sacrifices. Power dominates, out of control, unconscious	ASC in training and practice. Possession ASC	ASC induced through singing, drumming, and dancing. Tremors, convulsions, seizures, compulsive behavior, amnesia, dissociation	Possession and exorcisms. Control of possessing spirits
Priest	Power from ancestors, superior spirits or gods. Impersonal power and ritual knowledge. Propitiation and sacrifices. No control over spirit power	Generally no ASC apparent or very limited	Occasionally alcohol, sexual abstinence, isolation, sleep deprivation	Purification and protection. Public rituals and sacrifices

Table 1.2 (continued)

Ritualist Type	Supernatural Power/ Control of Power	ASC Conditions	ASC Techniques and Characteristics	Healing Concepts and Practices
Sorcerer/Witch	Power from spirits and ritual knowledge. Contagious, exuvial and imitative magic, spells. Power can be unconscious, out of control	Indirect evidence of ASC in reported flight and animal transformation	Night-time activities	Illness by consuming victim's soul, spirit aggression, magical darts that enter victim, unconscious emotional effects of envy, anger, etc.

The empirically derived group that was labelled as Shamans shares features cross-culturally, identified by the associated variables:

- Preeminent leader with dramatic night-time communal ritual engagement with spirits through enactments, drumming, dancing and singing;
- Spirit communication for healing, divination and sorcery;
- Selection by spirit encounters revealed in visions, illness, and dreams;
- Training with a vision quest in the wilderness with fasting, austerities and often psychoactive plants;
- An initiatory experience of death by animals which kill and dismembered the initiate;
- A rebirth, reconstructed by animals incorporated into the initiate as a principal power and experience of personal transformation into an animal;
- Ritual preparations of fasting and sexual abstinence;
- Altered states of consciousness (ASC) conceptualized as soul flight or out-of-body experiences, and notably the absence of possession in the ASCs;
- Healing by recovering lost soul, extraction of magical darts, and removal of sorcery;
- Can cause illness and death through magical darts and soul theft; and
- Directing hunters to the animals.

Shamans presumably share other features not widely recorded in the ethnographies available for the sample societies and pinpoint dates, for instance ceremonies of appeasement of spirits of animals

killed in hunting and power objects; there are also likely specific cosmologies found associated with shamans worldwide because they are reflective of neurognostic bases and neurophenomenological relations (Winkelman 2013).

Winkelman's updated (2021b) analyses of social predictors of each type of ritualists extended his earlier model (1990, 1992) of religious evolution from agriculture, political integration and social stratification, identifying:

- Shamans (Foraging Shamans), the only ritualists found in societies with principal reliance on foraging but without intensive agriculture, political integration, or warfare;
- Shaman/Healers (Agricultural Shamans), found in societies with intensive agriculture but lacking supra-community political integration, and generally with Priests also present;
- Priest who are found in societies with intensive agriculture and supra-community political integration;
- Healers found in societies with hierarchical political integration and war for resources;
- Mediums found in societies with hierarchical political integration and war for plunder and captives; and
- Sorcerer/Witch found in societies with intensive agriculture and supra-community political integration, but lacking community integration.

The ecological and social variables associated with the practitioner types were not used in the analyses to determine the practitioner types; consequently, these social-ecological relationships (correlations) constitute independent external verification of the validity of the types of the ritualist types (also see Winkelman 1986, 1992 for confirmatory analyses). These empirically determined ritualist type, their interrelationships, and relationships to subsistence and political conditions are as illustrated in Figure 1, which presents an ethnological model of sociocultural evolution of religion based on integration of the analyses of Winkelman (1986, 1992, 2021b).

Ritualist Types and Configurations in Relation to Subsistence and Sociopolitical Conditions				
1 Ritualist Type	2 Ritualist Types	3 Ritualist Types	3 Ritualist Types	4 Ritualist Types
	Priest	Priest	Priest	Priest
			Sorcerer/Witch	Sorcerer/Witch
		Healer or Shaman/Healer	Healer	Healer
Shaman or Shaman/Healer	Shaman/Healer or Medium	Medium		Medium
Subsistence and Sociopolitical Conditions				
No Political Integration	Local Political Integration	Hi Political Integration	Hi Political Integration	Hi Political Integration
No External Warfare		Warfare-Captives	Judiciary	Social Stratification
No Intensive Agriculture Foraging	Intensive Agriculture	War-Non-land Resources	Low Community Integration	Intensive Agriculture

Fig. 1. Ritualist Types, Configurations and Sociocultural Evolution (from Winkelman, 2023b)

ASSESSMENTS OF SIBERIAN SHAMANISMS

This diversification of magico-religious roles and their relationship to subsistence change and political integration are reflected in transformations of Siberian shamanism reported by Siikala (1978) and Hamayon (1996, 2017) (also see Winkelman 2023a, Epilogue for further details). Roberte Hamayon (1996) distinguished three types of shamanism: an Archaic Hunting Shamanism; a Pastoral Shamanism; and a Peripheral Shamanism, which she indicated does not correspond to shamanism in the full sense. Anna-Leena Siikala (1978) postulates four types of Siberian shaman: Small Group Shamans, Clan Shamans, Independent Professional Shamans; and Territorial Professional Shamans. Siikala proposed these categories represented an evolution of forms of shamanism from social conditions produced by the shift from hunting and gathering to pastoralism and clan dominance, and then the breakdown of the clan structure and the stratification of society.

The three societies from the Siberian region included in the SCCS subsample studied and their ritualist and their classification are: the Chukchee *ene nilit* (Shaman); the Yurak Samoyed (Nenets) *butode*, *'dano*, *sawode* or *tadibey* (Shaman); and the Kazakh *baga*, *baqca* and *bakshi* (Medium). Siikala characterized as Clan Shamanism the practices found among the Samoyed; Individual Professional Shamanism as prevalent among the Chukchee; and Territorial Professional Shamanism present among the Kazakhs.

Archaic Hunting Shamans and Small Group Shamans

Hamayon (1996, 2017) noted that in pre-Soviet hunting groups of Siberia, Archaic Hunting Shamans were the central institution of society, providing beliefs and practices that encompassed all life. Archaic Hunting Shamans focused on hunting rather than healing, but also conducting periodical community rituals for 'renewal of life.' Hunting required rituals for the species hunted, justifying hunting ideologically as a system of exchange in agreements shamans make with animals to hunt them. Archaic Hunting Shamans parallel Siikala's Small Group Shamans of nomadic northern groups who held archaic religious concepts linked to dependence on hunting deer and fishing. Here shamanism was pursued by whomever desired, working primarily for relatives and local residents with whom the shaman hunted. Principal rituals were to assure the supply of game, heal the sick, and assist in difficult births.

Pastoral Shamans and Clan Shamans

Like Siikala, Hamayon proposes changes caused by the emergence of patrilineal clans produced Pastoral Shamans and their pro-social activity of healing. With pastoralism dominating life, the social significance of shamanism declined under elders who derive power from patrilineal kinship, clan seniority, and relationships with ancestors. Pastoral Shamans resemble what Siikala calls Clan Shamans, both of which are selected by clan leaders as supernatural protector of the clan's economic interests through rituals for ancestor worship, soliciting success reindeer breeding. Rituals addressed the ancestral tribal founder, from whom they received their herds and pasturelands. Their rituals beseech them with prayers and sacrifices asking for all necessary for successful breeding – good rains, pasturage, and protection against predators.

Clan Shamans had limited roles in this ritual, subordinated to clan institutions and leaders. Hamayon (2017: 10) explains: ‘The shaman has but a small part in the periodical rituals, which the elders conduct ... as “grace” or “blessing.” The shaman's part consists in “introducing the ancestors’ blessing” into the sacrificial meat, which is seen as crucial to avoid misfortunes. This produced a verticalization of relationships in which the shaman is marginalized in the rituals of clan elders’ (Hamayon 1996: 83). Pastoral Shamans' healing seeks a balance between the living and the dead, and illnesses is transferred to another (or delayed) through animal sacrifice as part of the ‘bargain’ paid to the dead soul to free the sick person. Primary activities of Pastoral Shamans were private rituals focused on treatments of disorders for which they were quite well paid.

Territorial Professional Shamans

Ritualists identified by Siikala as Territorial Professional Shamans in Central Asia and southern Siberia were independent of clans, operating within a village and surrounding region. A professional body trained novices and performed initiatory rites and family ties were important in transmission of the profession. They sought prevention of illness and other misfortunes caused by evil spirits and performed rites to assure fertility of people and domestic livestock through animal sacrifice.

The Kazakhs are a Turkic group where Siikala identified Territorial Professional Shamans. Kazakhs were in Winkelman's sample and the *baga* (*baqca*, *bakshi*) described by Castange (1930) was classified as a Medium. Russian ethnologists refer to *baga* as shamans, but lo-

cals and practitioners consider these strictly Muslim practices (Somfai Kara 2017). The eighth century Islamic conquests replaced local practices with Islamic healers (Sultanova 2015). Eliade (1964) called *baga* priest and doctor, traditions involving exorcism and using a musical instrument rather than a drum. Ceremonies invoke Allah and Moslem saints and experiences of possession, an illness that the *baga* treat through exorcism to expel spirits.

Peripheral Cults

Hamayon (1996: 78) questions whether the peripheral forms of ritual practices that emerge in marginalized specialists in centralized societies – possessed mediums who address spirits of ancestors or souls of the deceased – are even shamans. For instance, Merli (2006) uses ‘shaman’ for a Mongolian belief system *Böö mörgö* and *udgan* (female) and *böö* (male) ritualists who communicate with spirits in ancestor-worship rituals to protect livestock and family. Rituals once addressed concerns with ancestor spirits causing misfortune; now it is the spells and curses of family and neighbors or their gossip, resentment, jealousy and insults that cause misfortune and require ritual cures. Patients visit *udgan* from feelings of unfairness in good fortune or for diagnosis. *Udgan* repair disorder, prevent trouble and attract good fortune with blessings, exorcism, and worship of entities and natural forces to obtain protection. *Udgan* make offerings to spirits who cause drought, flooding, epidemics, illness and death to humans and livestock. A sacrificial sheep was slaughtered in the consulting room and skinned and dismembered, its still beating heart circulated from hand to hand around the room through the audience and then cooked and eaten by all in attendance. Patients are whipped fiercely to ‘cleanse them of bad energy’ or obliged to drink a mixture of water, incense, milk and bile to cause purging. Such features are alien to Foraging Shamans.

DISCUSSION:

COMPARISONS WITH THE ETHNOLOGICAL MODEL

The historical Siberian Archaic Hunting Shamans and Small Group Shamans exhibit Foraging Shamans features. This is illustrated by the classification as Shamans the Chukchee and Samoyed practitioners included in the sample analyzed by Winkelman. But the Kazakh *baga* is a Medium who prevents illness by reading the Koran, performing animal sacrifices, and using whips and sticks to chase away bad spirits (Vuilleminot 2017); this bears no resemblance to Foraging Shamans’ heal-

ing. *Baga* also lack Foraging Shamans' features of death-rebirth experiences from attacks by animals. Animals are identities of tribal ancestor cults, not power animals. Soul flight journey is prohibited in Islam, and one does not enter the supernatural (Garrone 2017). The *bakshi* experiences multiple levels of the universe (Vuilleminot 2017), but not the collapse and apparent unconscious of Foraging Shamans' soul journey. *Baga* lack Foraging Shamans features – arduous training of fasting, abstinence, and austerities in the wilderness; extensive use of drums; power principally from animals and animal transformation; collective community-wide nighttime rituals; healing soul loss and removal of illness-causing intrusive objects; and hunting magic.

The emergence of Agricultural Shamans with agricultural intensification is paralleled in Siberian developments proposed by Hamayon and Siikala resulting from the shift to extensive pastoralism and patriarchal clan systems. Archaic Hunting Shamans and Small Group Shamans groups do some reindeer herding, so the effects of pastoralism alone is not responsible for the transformation. Rather, Clan Shamans and Pastoral Shamans emerged from pastoral *intensification*, paralleling the demise of Foraging Shamans and emergence of Agricultural Shamans (and Priests) from *intensive* agriculture. Siberian cases show pastoral intensification and patriarchal clan systems also transform Archaic Hunting Shamans, exemplified in new ritual roles of clan elders and animal sacrifices for well-being of herds.

Mykhailova (2019: 341) proposes a shamanic deer cult found in Eurasian burial complexes with red deer or roe deer remains. 'The object of worship is a sacred deer, incarnated as a female deity known as Deer-Mother, who is a ... zooanthropomorphic ancestor ... connected with the reproduction of deer and with hunting magic ... During those ceremonies, participants dressed as a deer, imitated deer coupling, and then killed and ate the sacral animal and buried its bones and antlers in sacred places for future regenerations of deer' (Mykhailova 2019: 341). Mykhailova proposes the main participant in these rituals was a shaman, but the ritual does not correspond to Foraging Shamans rituals. Rather these kinds of cult activities attest to emergence of Priests and clan ancestor worship.

Not all ritual activities of foraging societies involve Foraging Shamans. Hayden (2003) found priest in Neolithic trans-egalitarian societies with high resource accumulation and multi-community feasting with lavish bonding rituals for males. The prominence of drinking beakers among grave goods indicates elite consumption of alcohol in rituals for reinforcing alliances, with symbols of power and authority depicted in staffs, axes, shields, suns, boats, and bulls. Evidence of

ancestor cults in animal figures representing kinship groups (clans) and concerns with fertility in females depicted with rotund bodies and large stomachs, breasts and buttocks attest to glorification of reproduction. Priestly public feasting rituals for fertility and inter-community alliances are distinct from Foraging Shamans activities.

Priest are attested to in artifacts from a twelfth to eighteenth century site in Northwestern Siberia where Kardash (2011) identified a 'priest's staff.' Kardash says that this staff is virtually absent in other late medieval sites, the historical period, and modern ethnography, suggesting these activities disappeared before modern Russian contact. In analyzing the staff's central features – paired juxtaposed animals – Kardash notes a regional motif symbolizing guardians of the supreme goddess and divine fertility. This staff was obligatory for funeral ceremonies for the soul of a deceased person to assure its reincarnation in descendants. The staff's centrality to a new form of religious activity is exemplified by contemporary ritualists using it to replace drums. While Kardash vacillates whether the ritualist was a shaman or priest, historical beliefs indicate staffs were not ordinary attributes of shamans, but only used by those of highest degree chosen to communicate with ancestral spirits. Kardash proposes the possibility priests (or chiefs) carried out rituals attended by large numbers of visitors.

'White' Shamans as Priests

Basilov (1997) says white shamans emerged from breakdown of the clan system. 'The "white" shamans could hardly be called shamans at all. They were a priesthood of tribal or community cults, formed from the ranks of the shamans ... The duty of the white shaman was to appeal to the [good sky] deities, the *aiyy*' (Basilov 1997: 37). Vladimir Kondakov (a revered *oiiun* from the Sakha Republic) notes the white shaman was a distinctly different than archaic shamans: 'the white shaman was governmental. He was the leader of his tribe. He opened the *yhyakh* festivals ... in-service of the cult of the Sky God. ... He cured, but this was not the main issue. He advocated when to go to war. He was skilled in diplomacy. He predicted the weather; he knew how to save his tribe in emergencies. He was the main advisor to whoever was the main tribal leader, if he was not this leader himself' (Balzer 2010: 184).

These practices reflect activities of Priests, features also noted in Kharitonova's (2004) summary of similarities in white shamans:

- Selection did not require a 'shaman sickness';
- No ritual ASC nor travel to spirit worlds;

- Mostly male ritualists and heavenly deities;
- No use of drums, costumes and headdresses.

Basilov also notes Yakut ‘white’ shamans lack key shamanic characteristics of ecstasy, helping spirits and the ability to remove evil spirits. *Oiuun* (shamans) who use drums were prohibited at *yayakh* ceremonies and *aiyy* propitiatory offerings by clan priests (Aleksiev 1997: 96). ‘White’ shamans resemble Priests and Healers, not Foraging Shamans (see Table 1 for comparisons).

Furthermore, the elements of *yhyakh* festivals are not part of Foraging Shamans. Burnakov (2010) illustrates the Khakas' *yzykh*, meaning ‘sacred, holy,’ involve ritual traditions of totemic clans largely related to animal husbandry. A specially chosen domestic animal was a living sacrifice, a mediator between the clan and the supernatural patron and protector of herds petitioned to bring blessing and proliferation for their livestock. This biannual *yzykh* ritual emphasized clan identity through selection of specific-colored animals dedicated and propitiated for the health of the herds of a kinship group. *Yzykh* were also dedicated for healing, with the animal a repository for the spirit causing the illness who the *kam* cast out from the sick person into the animal with vodka offerings and incantations.

Balzer (2011) contends that the ideal types of shamans and priests are no longer useful because many aspects of their allegedly distinct roles can be found in a single Sakha practitioner who leads public rituals, provides healing and prophesizes the future. ‘Dora is a contemporary example of a combined shaman priest prophet. She is “priestly” when she leads purification prayers, shamanic when curing the ill, and prophetic when foreseeing the trouble that comes’ (Balzer 181). But the healing involves purifying prayers, ritual blessings and seeking a balance of forces, not Foraging Shamans healing through soul recovery, extracting objects and evil spirits, and countering sorcerers.

So What is a Shaman?

Determination if ritualists are shamans should use empirical comparative data rather than arbitrary definitions. The issue is not where a term originated, but if it refers to a well-delineated cross-cultural phenomenon that justifies a general term. Winkelman's (1990, 1992) cross-cultural research shows a consistent pattern of ritualists in foraging societies which corresponds to core concepts identified by diverse scholars researching the nature of shamanism. This cross-cultural pattern of Foraging Shamans ought to be the framework for characterizing and evaluating what was a shaman.

We can guide our decisions regarding the core characteristics of Foraging Shamans with reference to biologically-based features that explain the cross-cultural characteristics, such as the phylogenetic origins of ritual, ritual effects producing the psychophysiological dynamics of ASC, and innate modules related to the evolved interpersonal psychology of hominin adaptation (Winkelman 2010a, 2010b, 2021a, c, d, e). The Foraging Shamans' biological bases (described in Winkelman 2023b) include:

- Night-time/overnight conspicuous displays involving drumming, dancing and singing but the community have antecedents in ape displays (Winkelman 2009, 2021c);
- Selection revealed by experiences in spontaneous visions, dreams and sickness that are interpreted as a calling from spirits (especially ancestors), involving tendencies for enhance access to the unconscious and ASC (Winkelman 2011);
- Training with rituals that induce ASC and stimulate the neuro-modulatory neurotransmitter systems (Winkelman 2017) by engaging in isolation in the wilderness with fasting, sexual abstinence and painful austerities, conditions mimicking being lost and starving;
- Initiatory experiences of death/dismemberment from attacks by animals followed by a rebirth that incorporates animal powers into the shaman's identity and provides experiences of personal transformation into an animal, reflecting innate intelligences (Winkelman 2010a);
- Spirit experiences reflecting activation and dissociation of innate modular cognitive structures (Winkelman 2021d);
- ASC induced by engaging the mimetic operator (dancing, singing, drumming) to exhaustion and collapse, producing communication with spirits and out of body (soul flight) experiences, reflecting effects on innate cognitive modules (Winkelman 2015, 2021e);
- Primary functions of spirit communication, healing and divination reflecting endogenous healing responses (placebo, hypnotic) and psychointegrative effects; and
- Healing through ritual elicitation of endogenous healing mechanisms and involving illness concepts of recovery of lost soul, the removal or extraction of sorcery objects, and combat against effects of sorcerers (Winkelman 2010a).

Are all of these necessary to be a shaman, or are some non-essential for a shaman? The Foraging Shamans' – Agricultural Shamans' differences considered in light of the relations to foraging subsistence are instructive. Foraging Shamans' features – initiation alone in the wilderness, experiences of attacks and death by animals, animal

powers, animal transformation, and rituals for hunting – reflect elements central to a hunting lifestyle. ASC of soul flight, animal transformation, death and rebirth, and soul loss are inherent to shamanism because they are related to innate brain functions (Winkelman 2010a, 2021d, 2021e). Agricultural lifestyle does not preclude these features, as they persist in Agricultural Shamans, as do most Foraging Shamans features.

But Agricultural Shamans lack community-wide rituals, and instead have private rituals with clients. Agricultural Shamans professional organizations enabled by large sedentary communities provide training and recognition. Agricultural Shamans also adopted new magical techniques involving spells, charms and exuvial and imitative magic, and assist in agriculture rituals of Priests. Agricultural intensification produces global changes in reduced experiences of hunting and the new role of the Priest; coupled with effects of political integration and warfare, it leads to demise of Foraging Shamans and the emergence of new types of ritualists and new forms of religion. This same process occurred in Siberia with intensification of pastoralism and clan systems, producing new ritual activity exhibited in ancestor worship through sacrifices of domestic animals offered in exchange for providing protection and fertility for the herds of the clan.

This distinction of a new form of religion is supported by cross-cultural research which reveals three biogenetic bases of magico-religious practice (Winkelman 1992, 2021a) in the relation of ritualists, selection processes and principal functions:

1) Shamanistic healers (Foraging Shamans, Agricultural Shamans, Healers and Mediums) selected through ASC spirit experiences, who represent a cultural universal of rituals used for inducing ASC, spirit interaction and divination and healing;

2) Priests selected as leaders of kinship groups who provide political organization in hierarchical societies for collective sacrifices for protection and agricultural abundance through propitiation of deities, especially ancestors and high gods; and

3) Sorcerer/Witches designated by social ascription by religious authorities who attribute evil activities to persecute and kill subordinated groups in societies with political hierarchies and warfare.

Shamanistic healers – ritualists who induce ASC for spirit communication, divination and healing – represent a cultural universal. Foraging Shamans incorporate an archaic ritual form originating in ancient hominin collective nighttime displays of singing, drumming, and dancing that have intrinsic and adaptive effects in eliciting endogenous healing responses (Winkelman 2009, 2010a). Shamanic ritual

engages our evolved psychology in ritual elicitation, integration and differentiation of innate modular cognitive structures that produce: ASC, particularly out-of-body and death-rebirth experiences; mimetic capacities of singing, dancing and drumming; and spirits, animal identities and powers, and supernatural others (Winkelman 2010a, 2015, 2021 c, d and e). Central Foraging Shamans' features of animal powers and identities and hunting rituals reflect foraging lifestyles.

The clan ritual complex of ancestor worship for protection of herds and agriculture is beyond core functions of Foraging Shamans; rather these are criterion indicating that a practitioner is a Priest, even if a shaman is selected to fulfil the role. Just because a shaman is selected for a new ritual role, it does not mean that the role is shamanism since it is not a function of all shamans. By analogy, requiring a virgin for a role in an important ritual does not make 'important ritualist' a feature of virgins. Although a shaman is required for the new role of Clan Shamans and Pastoral Shamans, it is not essential to the core of the shaman's role because it is not done by all shamans. Rather the Clan Shamans and Pastoral Shamans serve as a new stratum of ritualists, the ancestor priests, in intensive pastoral societies who address clan ancestors for abundance of herds, paralleling the role of the Priest in organizing collective rituals related to agriculture.

Oppression of Shamanism in Russia

The third stratum of magico-religious practice reflected in Sorcerer/Witches is also found in both pre-historical and modern associations of shamanic elements with the profile of the Russian witch. Dugan (2017) reviews evidence in Russian fairy tales of an evil wizard named Muhomor, commonly understood to mean 'Poison mushroom' (referring to the Fly-agaric) and the witch Baba Yaga, who's formulaic association with *Amanita muscaria* in the nineteenth-century Russian art and literature reflects a widespread motif in Eurasia.

The ethnological model indicates Shamans' violent suppression by religious leaders (Priests, Healers). Foraging Shamans' negative correlation with political integration and warfare shows the factors contributing to their disappearance. Siberian shamans were first subordinated to patriarchal clan structures, next marginalized, and then violently repressed by more hierarchical organizations, the state. Repression of shamanism was key to Czar Catherine the Great's modernization programs implemented through the Russian Orthodox Church. Priests exercised local authority to persecute shamans by banning rituals, seizing drums, destroying sacred objects and places, and imprisoning shamans.

Although oppressed, shamans persisted through the Russian Revolution, a rival social institution impeding the Soviet modernist project as a quintessential symbol of feudal tradition and conservatism (Bulgakova and Sundstrom 2017). Balzer (2016: 1, 8) notes that many shamans were killed, rituals were suppressed, and potential shamans were crushed and unable to fulfill their familial destinies. Soviets' contempt for shamans led to their public ridicule and psychiatric hospitalization as schizophrenic, their ritual behaviors and ASC considered psychotic abnormalities. Bulgakova and Sundstrom (2017) recount reports of a witch hunt of terror during the 1930s in memories of mass arrests and imprisonment of shamans, their torture, and the disappearance and execution of many (for further details also see Winkelman [2023a], Epilogue).

However, destruction of ritual objects and executions did not automatically end shamanic practices, as some hid religious objects and continued to practice in secrecy. These transformed ritual practices re-emerged in the post-Soviet era, but 'shamanic worldviews survived better than the shamans themselves [and] ... the few hero-shamans who survived ... [found] their ultimate despair was their inability to find and train worthy successors' (Balzer 2011: 45, 50).

Are there Russian Shamans Today??

Renown Russian shamanism expert Leonid Potapov (1991) asserted that by the later twentieth century the Altai shamanism of the early twentieth century had completely disappeared and what remained were legends, beliefs and reminiscences (Sundstrom 2021). Widespread shamanic revivals followed the fall of the Soviet Union (Balzer 2011, 2016) but are these survivals shamans? Although shamanistic beliefs survived, practices were fundamentally transformed. What survived was not a weakened version of the Foraging Shamans, Archaic Hunting Shamans or Small Group Shamans, but rather shamanistic beliefs and folklore and new practices as illustrated above in the Mongol and Kazakh cases.

Sundström (2021) notes the English concept of shaman has two related but distinct terms in Russian: *shamanstvo* and *shamanizm*. He cites Khomich (1981: 5) in distinguishing *shamantsvo* referring to 'early religious beliefs associated with the presence of a particular person, who conducts cultic acts in the form of a certain ritual'; and *shamanizm*, 'the totality of notions about the surrounding world and humans, which paved the way for the formation of a phenomenon such as *shamanstvo*'. Thus, *shamanstvo* is a narrower and more specific, a ritual functionary (*i.e.*, Foraging Shamans). As Sundström

notes: ‘*Shamanism* [is] a wider concept designating a type of world-view, and does not necessarily presuppose the presence of “shamans”’ (2021: 357). I parallel this distinction contrasting shaman (and shamanic) with shamanistic, emphasizing the differences between Foraging Shamans and other shamanistic healers that emerged following subsistence change, warfare and political integration. In Russia, it was ‘*shamanizm*’ that survived, not ‘*shamanstvo*’, other forms of shamanistic healers but not Shamans.

This transformation is reflected in contemporary definitions: ‘My working definition is that shamans are mediators of spirit worlds for a purpose’ (Balzer 2016: 27). Such a definition fails to distinguish shamans from any kind of religious practitioner, including the Catholic pope and witches. Similarly, the notion that ‘my minimalist definition of shamans, came to emphasize the “upper worlds” of the major sky deities, especially during their prayer-blessings at major ceremonies’ (Balzer 2010: 190) fails to distinguish shamanism from Christianity or virtually any religion.

CONCLUSIONS

Should we continue using the word shaman in scholarly discourse about Siberia and Russian and in anthropology and comparative religion? Analogies show the need for clarity with new words. A century ago, the last czar of Russia was executed, and a long tradition of Russian czars ended. Or did it? Is Putin a czar? Was the General Secretary Lenin a czar? Were the Russian Premiers or heads of state czars? No. While their roles maintained many powers of the czars, there were different dynamics, new practices of selection and principles of rule, and new names were given to supreme leaders.

Likewise, we need new names for transformed ritualists, the word is useless if every ritualist is a shaman. It is difficult to relinquish the word shaman with its international currency and extensive local penetration, but for clarity we must distinguish Foraging Shamans, Archaic Hunting Shamans and Small Group Shamans from clan ritualists, priests and modern and post-modern shamanistic survivals and reconstructions. Central features of the Foraging Shamans identified by cross-cultural research eventually disappear in the ritualists as seen in Mediums and Healers who lack: community-wide rituals; formation in the wilderness; core of power from animal; ASC involving soul flight, animal transformation and death and rebirth experiences; illness ideologies focused on soul loss and object extraction; healing through control over spirits; and beliefs in shamans' ability to cause supernatural illness and death. Shamans' practices and beliefs were transformed

as subsistence change and political incorporation of communities into state systems led to demonization and persecution of this prior religious ideology in a way that exemplifies the treatment of Sorcerer/Witches illustrated in the ethnological model. What survived this oppression of shamanic traditions lost features, practices and beliefs core to Foraging Shamans.

Many have noted the diverse beliefs and practices called shamanism are not static or uniform, but rather vary from place to place. This variation has confounded investigators, who without an ethnological model of the forces of sociocultural evolution producing changes and the new patterns that result, have been unable to explain variation in ritual practices. The patterns of variation do not falsify a cross-cultural shamanism, but rather show how subsistence changes and political integration transformed Foraging Shamans, Agricultural Shamans, Archaic Hunting Shamans and Small Group Shamans into other forms of ritualists. Siberian data confirm and extend the ethnological model of shamanistic devolution, illustrating transformation of Siberia Archaic Hunting Shamans by intensive pastoralism and patriarchal clan developments that produced new ritualist roles.

The cross-cultural generality of this ethnological model is illustrated in a recent application to the Chinese *wu* and other ritualists (Winkelman 2023b), which bears out several significant points. First is that Chinese *wu* do not resemble Foraging Shamans, but rather other etic categories of magico-religious types as follows:

- ‘Ancient *wu xi* or *wu yi*: Healer;
- Commoner *wu*: Agricultural Shaman;
- State religious officials, bureaucratic *wu*: Priest;
- Female *wu* of the Warring States period: Medium;
- *Guwu* of the Han period: Sorcerer/Witch;
- Chinese Reindeer-Evenki šaman: Foraging Shaman;
- Bo of the Tu ethnic group of Qinghai Province: Priest.’

Perhaps most significant is the presence of a Foraging Shaman in near-contemporary China, the šaman of the Chinese Reindeer-Evenki, descendants of Siberian Tungus who immigrated into Chinese territory 200 years ago (Heyne 1999).

Virtually all the exclusive features of Foraging Shamans are exhibited by the šaman. The healing and divination, as well as malevolent acts, are shared, as is the selection based on illness, dreams and visions from spirits. The formative period alone in the wilderness, with fasting and visions leading to death-and-rebirth experiences are shared features; as are the high status, lack of economic gain, both male and

female part-time functionaries, and the altruistic action on behalf of the community they were obliged to serve. Šamans controlled the spirits and their powers came from animals into which they were believed to transform for journeys to the spirit world. These and other classic features of shamanism and Shamans such as healing through soul recovery, removal of malignant spirits and use of medicinal plants all illustrate features of the šaman which correspond to Foraging Shamans. The fact that the Chinese Reindeer-Evenki were hunters and pastoralists who immigrated to China around 200 years ago and constitute an ethnic group outside of mainstream Chinese culture is instructive. It is only outside of the core of Chinese culture, in the tribal groups at the margins and periphery, that the Shaman is found in recent history (Winkelman 2023b).

This ethnological model and social evolutionary framework presented here use synchronic data, assessing conditions within a society at a single point in time and inferring patterns of change from differences in societies at different levels of complexity. These models can be further assessed with diachronic data on Siberian societies, examining changes in ritual practices across time within each society by comparing pre-historic archaeological evidence, mythology and folklore, and historical accounts that emerged across time as Siberian shamanisms entered Western intellectual domains. Russian historical records on Siberian ritualists should help to reveal the effects of intensive pastoralism and patriarchal clans on shamanism and society, making possible practices of animal sacrifice and emergence of clans and Priests. A sample with a range of ecological, subsistence and political conditions should enable documentation of transformative effects resulting from intensification of pastoralism and patrilineal clan structures and their interaction with supra-community political structures as Priests emerged as the dominant religious force.

While any person, profession and society can define what shaman means to them, for a word to be useful in scholarly discourse it needs clear denotations and distinctions, as well as empirical justifications. Popular use of shaman cannot be regulated, but it behooves scholars to make distinctions if the word is to have scientific value. We should reserve the term shaman, without qualification, for the features of Foraging Shamans, a primordial worldwide hunter-gather ritual pattern. Subsequent forms of shamanism – Clan Shamans, Pastoral Shamans, Agricultural Shamans, *etc.* – should be delineated based on their shared characteristics. But the concept of Shaman types should stop

short of including Healers, Mediums, Priests and the wide variety of ancient, modern and post-modern practitioners lacking core features of Foraging Shamans. The term shamanistic healer can be used for a cultural universal, ritualists who alter consciousness for spirit communication, divination and healing (Winkelman 1990, 1992, 2010a).

NOTES

¹ Revised data available in the mendeley data repository at <https://data.mendeley.com/datasets/34pjbr4kg4/2>.

² The analyses were performed on the CosSci at University of California, Irvine through access provided by Doug White (RIP) but is no longer publicly available. The Standard Cross-cultural Sample data (Murdock, G. and D. White 2006) is available in the On-Line Edition. UC Irvine: Social Dynamics and Complexity at <https://escholarship.org/uc/item/62c5c02n>. The SCCS data is also available at <https://d-place.org/>, and by variable areas at <https://d-place.org/contributions/SCCS>. Data available in R workspace for analyses can be accessed at <https://capone.mtsu.edu/eaef/Dow-Eff%20functions.html> <https://capone.mtsu.edu/eaef/Dow-Eff%20functions.html>.

REFERENCES

- Alekseev, N. 1997. Shamans and their Religions Practices from Shamanism Among the Turkic Peoples of Siberia. In Balzer, M. (ed.), *Shamanic Worlds: Rituals and Lore of Siberia and Central Asia* (pp. 49–109). Amazon.com NY: M.E. Sharpe.
- Balzer, M. M. 2010. Shamans, Priests and Prophets Do We Need these Classic Distinctions Today? In Kharitonova, V. (ed.), *Psychophysiology and Social Adaptation of (Neo)shamans* (pp. 173–202). Moscow: Russian Academy of Sciences.
- Balzer, M. M. 2011. *Shamans, Spirituality, and Cultural Revitalization. Explorations in Siberia and Beyond*. NY: Palgrave Macmillan.
- Balzer, M. M. 2016. Shamans Emerging from Repression in Siberia: Lightning Rods of Fear and Hope. In Jackson, P. (ed.), *Horizons of Shamanism* (pp. 1–34). Stockholm: Stockholm University. DOI: <http://dx.doi.org/10.16993/bag.c>.
- Basilov, V. 1997. Chosen by the Spirits. In Balzer, M. (ed.), *Shamanic Worlds* (pp. 3–48). Amazon Kindle NY: M.E. Sharpe.
- Boekhoven, J. 2011. *Genealogies of Shamanism*. Netherlands: Barkhuis Publishing.
- Boas, F. 1910. The Religion of American Indians. In Hodge, F.W. (ed.), *Handbook of American Indians North of Mexico* (pp. 365–71). Washington, D.C.: Govt. Printing Office.
- Boas, F. 1930. *Religion of the Kwakiutl Indians*. New York: Columbia University Press.

- Bulgakova, T., Sundstrom, O. 2017. Repression of Shamans and Shamanism in Khabarovsk Krai 1920s to the Early 1950s. In Kotljarchuk, A., and Sundstrom, O. (eds.), *Ethnic and Religious Minorities in Stalin's Soviet Union* (pp. 225–262). Stockholm: Elanders.
- Burnakov, V. 2010. The Zzykh in the Context of Traditional Khakassian Beliefs. *Archaeology, Ethnology & Anthropology of Eurasia* 38 (2): 111–121.
- Castagne, J. 1930. Magie et Exorcisme chez les Kazak-Kirghizes et Autres Peuples Turcs Orientaux. *Revue des Etudes Islamiques* 1: 53–151.
- Clottes, J. 2004. Hallucinations in Caves. *Cambridge Archaeological Journal* 14 (1): 81–82. doi: 10.1017/S095977430421006X.
- Dugan, F. M. 2017. Baba Yaga and the Mushrooms. *Fungi* 10 (2): 6–17.
- Eliade, M. 1964. *Shamanism: Archaic Techniques of Ecstasy*. New York: Pantheon Books.
- Flaherty, G. 1992. *Shamanism and the Eighteenth Century*. Princeton: Princeton University.
- Francfort, H. R., Hamayon, R., and Bahn, P. (eds.). 2001. *The Concept of Shamanism: Uses and Abuses*. Budapest, Hungary: Akadémiai Kiadó.
- Francfort, H. 2001. Prehistoric Section: An Introduction. In Francfort, H., Hamayon, R., and Bahn, P. (eds.), *The Concept of Shamanism: Uses and Abuses* (pp. 31–49). Budapest: Akadémiai Kiadó.
- Garrone, P. 2017. Healing in Central Asia: Syncretism and Acculturation. In Zarcone, T., and Hobart, A. (eds.), *Shamanism and Islam* (pp. 17–26). London: I. B. Tauris.
- Hamayon, R. 1996. Shamanism in Siberia: From Partnership in Supernature to Counter-power in Society. In Thomas, N., and Humphrey, C. (eds.), *Shamanism, History and the State* (pp. 76–89). Ann Arbor: University of Michigan.
- Hamayon, R. 2017. Contextual Variations of Shamanic ‘Healing’ in South Siberia: From ‘Obtaining Luck’ to Relieving Misfortune. In Zarcone, T., Hobart, A. (eds.), *Shamanism and Islam* (pp. 3–16). London: I.B.Tauris.
- Hayden, B. 2003. *Shamans, Sorcerers, and Saints: A Prehistory of Religion*. Wash., D.C.: Smithsonian.
- Heyne, F. G. 1999. The Social Significance of the Shaman among the Chinese Reindeer-Evenki. *Asian Folklore Studies* 58: 377–95.
- Kardash, O. V. 2011. Priest’s staff’ from Fort Nadym of the 16th–17th Centuries. *Archaeology Ethnology & Anthropology of Eurasia* 39 (3): 104–112.
- Kehoe, A. B. 2000. *Shamans and Religion*. Prospect Heights, IL: Waveland Press.
- Kharitonova, V. 2004. ‘Black’ Shamans, ‘White’ Shamans. In Walter, M., and Neumann, E. (eds.), *Shamanism An Encyclopedia of World Beliefs, Practices and Culture* (pp. 536–539). Santa Barbara: ABC-CLIO.
- Khomich, L. 1981. Shamans among the Nenets. In Vdovin, I. (ed.), *Problems of the History of the Social Consciousness of the Aborigines of Siberia*

- (pp. 5–41). Leningrad: Nauka. Original in Russian (Хомич Л. Шаманы у ненцев / Вдовин И. (ред.), *Проблемы истории общественного сознания аборигенов Сибири* (стр. 5–41). Ленинград: Наука).
- Le Quellec, J. 2001. Shamans and Martians: The Same Struggle. In Francfort, H., Hamayon, R., Bahn, P. (eds.), *The Concept of Shamanism: Uses and Abuses* (pp. 135–159). Budapest, Hungary: Akadémiai Kiadó.
- Lewis-Williams, D. 2006. Shamanism: A Contested Concept in Archaeology. *Before Farming* 4 (1): 1–15.
- Merli, L. 2006. Shamanism in Transition. In Bruun, O., and Narangoa, L. (eds.), *Mongols from Country to City* (pp. 254–271). Copenhagen: NIAS Press.
- Mykhailova, N. 2019. Shaman' Burials in Prehistoric Europe. Gendered Images? In Koch, J., and Kirleis, W. (eds.), *Gender Transformations in Prehistoric and Archaic Societies* (pp. 341–362). Leiden: Sidestone Press.
- Murdock, G., and White, D. 2006. Standard Cross-cultural Sample. *On-Line Edition. UC Irvine: Social Dynamics and Complexity*. <https://escholarship.org/uc/item/62c5c02n>.
- Pearce, D. 2004. 'Testing' and Altered States of Consciousness in Upper Paleolithic Art Research. *Cambridge Archaeological Journal* 14 (1): 82–85. doi: 10.1017/S0959774304220066.
- Potapov, L. 1991. *Altaiskii Shamanism*. Leningrad: Nauka. Original in Russian (Потапов Л. Алтайский шаманизм. Ленинград: Наука).
- Siikala, A. 1978. *The Rite Technique of the Siberian Shaman. Folklore fellows communication* 220. Helsinki: Soumalainen Tiedeskaremia Academia.
- Somfai Kara, D. 2017. Religious Traditions among the Kazakhs and the Kirghiz. In Zarcone, T., and Hobart, A. (eds.), *Shamanism and Islam* (pp. 47–58). London: I. B. Tauris.
- Sultanova, R. 2015. *From Shamanism to Sufism*. London: I. B. Tauris.
- Sundstrom, O. 2021. Is the Shaman Indeed Risen in Post-Soviet Siberia? *Scripta Instituti Donneriani Aboensis* 24: 350–387.
- Vuillemonot, A. 2017. Muslim Shamans in Kazakhstan. In Zarcone, T., and Hobart, A. (eds.), *Shamanism and Islam* (pp. 59–78). London: I. B. Tauris.
- Whitley, D. 2006. Is There a Shamanism and Rock Art Debate? *Before Farming* 4 (7): 1–7.
- Whitley, D. (2009). *Cave paintings and the human spirit: The origin of creativity and belief*. Amherst, NY: Prometheus Books
- Winkelman, M. 1986. Magico-religious Practitioner Types and Socioeconomic Conditions. *Behavior Science Research* 20 (1–4): 17–46.
- Winkelman, M. J. 1990. Shaman and Other 'Magico-religious Healers': A Cross-Cultural Study of their Origins, Nature, and Social Transformation. *Ethos* 18 (3): 308–52.
- Winkelman, M. J. 1992. *Shamans, Priests, and Witches*. Tempe, Az.: ASU Anthropological Research Papers No. 44.

- Winkelman, M. J. 2009. Shamanism and the Origins of Spirituality and Ritual Healing. *Journal for the Study of Religion, Nature and Culture* 34 (4): 458–489.
- Winkelman, M. J. 2010a. *Shamanism: A Biopsychosocial Paradigm of Consciousness and Healing*. 2nd edition. Santa Barbara, CA: ABC-CLIO.
- Winkelman, M. J. 2010b. The Shamanic Paradigm: Evidence from Ethnology, Neuropsychology and Ethology. *Time and Mind* 3 (2): 159–182.
- Winkelman, M. J. 2011. Shamanism and the Alteration of Consciousness. In Cardena, E., and Winkelman, M. (eds.), *Altering Consciousness Multidisciplinary Perspectives*. Vol. 1: *History, Culture and the Humanities* (pp. 159–180). Santa Barbara: Praeger ABC-CLIO.
- Winkelman, M. J. 2013. Shamanic Cosmology as an Evolutionary Neurocognitive Epistemology. *International Journal of Transpersonal Studies* 32 (1): 79–99.
- Winkelman, M. J. 2015. Shamanism as a Biogenetic Structural Paradigm for Humans' Evolved Social Psychology. *Psychology of Religion and Spirituality* 7 (4): 267–277.
- Winkelman, M. J. 2017. Shamanism and the Brain. In Clements, N. (ed.), *Religion: Mental religion* (pp. 355–372). New York: MacMillan.
- Winkelman, M. J. 2021a. A Cross-cultural Study of the Elementary Forms of Religious Life: Shamanistic Healers, Priests, and Witches. *Religion, Brain & Behavior* 11 (1): 27–45.
- Winkelman, M. J. 2021b. An Ethnological Analogy and Biogenetic Model for Interpretation of Religion and Ritual in the Past. *Journal of Archaeological Method & Theory*. <https://doi.org/10.1007/s10816-021-09523-9>.
- Winkelman, M. J. 2021c. The Evolutionary Origins of the Supernatural in Ritual Behaviours. In Craffert, P., Baker, J., and Winkelman, M. (eds.), *The Supernatural after the Neuro-turn* (pp. 48–68). London: Routledge.
- Winkelman, M. J. 2021d. The Supernatural as Innate Cognitive Operators In Craffert, P., Baker, J., and Winkelman, M. (eds.), *The Supernatural after the Neuro-turn* (pp. 89–106). London: Routledge.
- Winkelman, M. J. 2021e. Shamanic Alterations of Consciousness as Sources of Supernatural Experiences. In Craffert, P., Baker, J., and Winkelman, M. (eds.), *The Supernatural after the Neuro-turn* (pp. 127–147). London: Routledge.
- Winkelman, M. J. 2023a. *Shamanism: A Biopsychosocial Paradigm of Consciousness and Healing*. Translated by M. V. Vishnevsky. Moscow: Bio-Press. Original in Russian (Винкельман М. Дж. Шаманизм. Биопсихосоциальная парадигма сознания и целительства. М.: Био-Пресс).
- Winkelman, M. 2023b. Chinese Wu, Ritualists and Shamans: An Ethnological Analysis. *Religions* 14 (7): 852. <https://doi.org/10.3390/rel14070852>.
- Znamenski, A. 2007. *The Beauty of the Primitive Shamanism and the Western Imagination*. NY: Oxford.