

Altered States of Consciousness

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Abstract

Nearly all societies are known to engage in practices that lead to altered states of consciousness. However the methods, functions, and cultural context vary widely between societies. One major variation is whether societies believe in possession by spirits or in one's soul fleeing or going on a journey. We summarize what we know of this variation from cross-cultural research.

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Figure 1: *Amanita muscaria* is a mushroom species traditionally used in shamanic activities by indigenous Siberian and Baltic cultures such as the Saami of Finland and the Koryaks of Eastern Siberia. Shamans used it as an alternative method of achieving a trance state. In most cases, however, Siberian shamans achieve trance by prolonged drumming and dancing.

Altered States of Consciousness

What are altered states of consciousness?

We are all aware that our dreams may contain very different kinds of thoughts than those that we have while awake. However, there are also wakeful situations in which we can experience an altered state of consciousness (ASC)— these include hallucination, hypnotic states, trance states and meditation. In contemporary North American culture, these wakeful ASCs are thought of either as unusual events or pertaining to practices of specialists—hypnotic states induced by therapists or magicians, trances entered into by mediums conducting séances, meditation in yoga classes, or drug-induced hallucinatory experiences. The idea that bodies might be possessed by demons, witches, or spirits also exists as a popular theme in media and in some religious traditions. However, contemporary mainstream North American culture does not embrace these practices in rituals, healing practices, or as part of ordinary life. In other words, ASCs are not institutionalized (Winkelman 1986).



Figure 2: The “Princeton Shaman”: Shaman in Transformation Pose, Olmec, ca. 800 B.C. An image of the marine toad *Bufus marinus* is incised on the figure’s forehead.

Altered States of Consciousness in Human History: A Brief Overview

ASCs have likely been part of the human cognitive repertoire for at least 100,000 years, if not longer. Entoptically-suggestive art (that is, art composed of motifs indicating sensory deprivation and commonly-associated forms of visual hallucination) can be seen as early as 70,000-100,000 years ago at Blombos Cave in South Africa (Henshilwood et al. 2002). Archaeological evidence for institutionalized ASCs has been found in human societies across the globe and throughout human history.

Examples of ASCs in the Archaeological Record

- Pre-Columbian Maya society ritually consumed *balché*, a mead-like drink made with the hallucinogenic plant *Longocarpus longistylus*.
- The Olmec used “hallucinogens such as native tobacco (*Nicotiana rustica*) or the psychoactive venom found in the parathyroid gland of the marine toad *Bufo marinus*. Bones of this totally inedible toad appeared in trash deposits at San Lorenzo, while the magnificent kneeling figure known as the ‘Princeton Shaman’ has one of these amphibians incised on the top of his head” (Diehl 2004, 106; Sharer and Morley 1992).
- In the South Pacific, Maori religious specialists employed Maori kava (*Macropiper excelsum*) in religious ritual and Polynesian groups such as the Hawaiians and Tongans used ‘awa (*Piper methysticum*) as an aid to communing spiritually with ancestors (Kirch 1985, 1988).
- Iron Age Indo-European groups such as the Scythians and the Dacians utilized *Cannabis sativa* and melilot (*Melilotus sp.*), which have been found charred in vessels and pouches accompanying burials and were described by the Greek historian Herodotus (5th century BCE) as part of a consciousness-altering repertoire for spiritual purification (Rudenko and Thompson 1970; Rolle and Walls 1989).
- The priestly caste at Chavín de Huantar, a Peruvian site occupied by the pre-Inca Chavín culture, used psychoactive substances such as mescaline-bearing San Pedro cactus (*Trichocereus pachanoi*) and vilca snuff (*Anadenanthera sp.*) in ceremonial contexts. Similar substances and accoutrements have been found at priestly burials in Tiwanaku, Bolivia. Scholars suggest that in a number of pre-Columbian Andean cultures, “social linkage...revolved intensely around cults and shared religious experience” that may often have been brokered by religious specialists who included wakeful hallucinogen-induced ASC as an important part of their spiritual repertoire (Kolata 1993, 272; Burger 2011).



Figure 3: Scythian burial, Upper Chui Valley in Altai, Russia. (Source: Archaeology News Network. Photo by L. Oleczak.)

- Artistic motifs at a number of late Neolithic megalithic ceremonial complexes in northern and western Europe (approximately 4000-2000 BCE) are thought to have been derived from entoptic hallucinatory imagery. Irish passage tombs or dolmen such as the site of Knowth, County Meath, are likely to have been designed as “multisensorial experiences” in which darkness and acoustic resonance could produce altered states of consciousness (Twohig 1981; Watson 2001; Wesler 2012; Lewis-Williams and Dowson 1993).

These examples represent only a small fraction of the historical and archaeological evidence for institutionalized ASCs. As the scope of archaeological evidence is limited by materiality, these pharmacologically-oriented examples represent only a few of the ways that humans engage in wakeful ASCs. Remains of hallucination-inducing substances can be recovered archaeologically or sometimes substantiated through historical texts while other methods of inducing ASCs are difficult if not impossible to capture. Nevertheless, the ubiquity of these practices across time and space in human history suggests that ASCs play a fundamental role in the maintenance of human social fabric and human social-spiritual linkage. Additional examples of the archaeology of altered states can be found among the eHRAF databases.



Figure 4: Valentin Hagdaev – head shaman of Olkhon. Lake Baikal. Buryatia, Siberia.

What are trances?

Trance behaviors are difficult to define, but most observers seem to be able to tell when a person is in a trance. Aside from altered and often internally-oriented states of thinking, there seem to be changes in emotional expression, changes in body image, feelings of rejuvenation, and increased suggestibility. There is evidence for shared physiological processes during different forms of trance as well as other ASCs (Winkelman 1986). Trance states involve both amplification of certain internal cognitive processes as well as a decoupling of sensory processing (Hove et al. 2015).

What about more recent cultures? Are ASCs institutionalized in other cultures?

Institutionalized ASCs are extremely widespread in the cultures known to anthropology, suggesting that not only are wakeful ASCs part of the repertoire of human experience, but that they are also usually incorporated into cultural beliefs and practices. In one cross-cultural survey of 488 societies, 90% had some kind of cultural trance behavior or belief (Bourguignon 1968; Bourguignon and Evascu 1977).

Types of Institutionalized Trances

Two kinds of institutionalized trance are usually distinguished: 1) a type of trance in which the person's soul is believed to leave the body because it is abducted or goes on a journey; and 2) *possession trance*, in which the change in a person's behavior and utterances during the trance are explained by being possessed or taken over by a spirit of some kind. Some societies have only the first type which we will call non-possession trance, others have only possession trance, and some have both. Note that there can be possession beliefs without trance behavior, such as when illnesses are believed to be caused by invading spirits (Bourguignon 1976; Bourguignon and Evascu 1977).

Can Trance Type be Predicted by Social Structure?

- The type of trance generally varies with social complexity. More complex societies, that is, those with higher political integration, more dependence on agriculture, more dependence on food production, more permanent communities, and more social stratification, are more likely to have possession trances. Simpler societies, such as most hunter-gatherers are more likely to only have non-possession trances (Bourguignon 1976; Greenbaum 1973; Swanson 1978).
- If the effect of political hierarchy is controlled, societies where people are more involved in decision-making are less likely to have possession trances (Bourguignon and Evascu 1977; Swanson 1978).

ASCs play a fundamental role in the maintenance of human social fabric and human social-spiritual linkage.

Trance and Healing

Illness and death affect all people, and all societies have developed cultural practices to try to heal the sick. If home remedies do not help, usually people resort to a specialist healer of some kind. In most societies these specialists are magico-religious healers. Even in societies exposed to Western medicine, some people still turn to magico-religious practitioners.

Trance and other altered states of consciousness are strongly associated with healing practices of shamans, a subset of magico-religious healers. Among shamans, trances are usually induced by mechanisms such as singing, chanting, drumming, or dancing, after which the shaman in training or practice collapses and becomes unconscious and has intense visual experiences. These experiences

presumably induce a state of relaxation that replaces fast brain activity in the front areas of the brain with slow wave activity representing more emotional information (Winkelman 1986, 2006)

- Different methods are used to induce trances cross-culturally. These methods can require excessive physical movement (including shamanic drumming and dancing mentioned above), but may also involve sleep deprivation, fasting, sleep, and psychoactive drugs. These types of behaviors are not haphazard; if sleep deprivation is present, fasting and social isolation are often also present, such as when a young person goes alone into the forest on a quest for a guardian spirit. Moreover, these types of induction methods rarely are associated with possession trance (Winkelman 1986).
- If sleeping is the induction method, trance usually involves a nonpossession trance such as a soul journey. Possession trances, on the other hand, are associated with subsequent amnesia, convulsions, and spontaneous onset of trances (Winkelman 1986).

What Predicts Trance Behavior?

- Trance behavior is always associated with the training of magico-religious healers (Winkelman 1990).
- More complex societies are more likely to involve possession trance in the course of training magico-religious practitioner (Winkelman 1986, 2006).
- In the course of their healing others, healers in simpler societies employ non-possession trances; healers in more complex societies are more likely to use possession trance (Shaara and Strathern 1992).

The Vision Quest

In many Native North American societies, individuals reaching puberty sought out a guardian spirit. Guardian spirits were neither ghosts nor culture heroes—they were usually spirits of plants or animals or celestial bodies. Such spirits were sought out by individuals in the hope that they might grant health, strength, the power to cure others, or success in hunting, war, or love. The operative word is “might”: a guardian spirit is not compelled to give gifts of power to a particular person, nor to continue to do so. The guardian does not possess the person nor do the work for them. Rather, the guardian spirit enables the receiver to act independently. A visionary experience or vision quest is usually the method of obtaining a guardian spirit and very often involves prolonged fasting, exhausting exercise, or exposure to dangers.

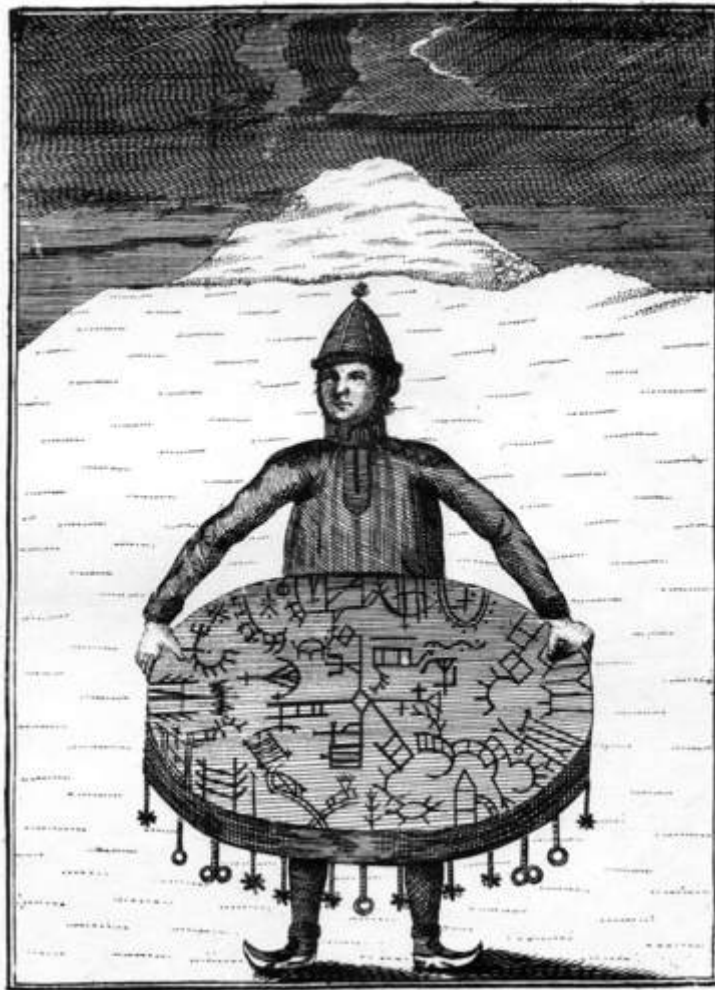


Figure 5: Copper carving depicting a Sámi shaman from Meråker, Nord-Trøndelag with his drum.

What predicts the guardian spirit complex or vision quest?

- A survey finds no instances outside of North America (Swanson 1973).
- The guardian spirit complex is associated with hunting and fishing as a means of subsistence. However, the relationship is somewhat curvilinear—that is, societies with moderately high (but not high) dependence upon hunting and fishing are most apt to demonstrate this complex. This prediction is derived from Barry, Child, and Bacon (1959)'s finding that hunting and fishing societies emphasize independence, self-reliance and achievement. North America had a very high proportion of hunting and fishing societies (76%); this might explain why the complex is found in North America and nowhere else (Swanson 1973; Barry, Child, and Bacon 1959)

A guardian spirit is not compelled to give gifts of power to a particular person, nor to continue to do so.

Dreaming and Out-of-Body Experiences

Dreaming during sleep is believed to be a universal human characteristic. Even people who do not remember dreaming have been observed to do so in sleep laboratories. Dreaming occurs during REM (rapid-eye-movement) sleep. It has also been observed in all studied mammals such as cats, dogs, and monkeys.

Just as some societies believe that the soul may leave the body during trance (non-possession trances), there is also a tendency to link “soul flight” to the dream state. Beliefs surrounding out-of-body experience are very widespread; in a cross-cultural survey, such beliefs were found in 95% of analyzed societies. This does not imply that all people in a given society have such an experience, but rather that it is believed that at least some people experience it. 80% of the cultures surveyed believe that dreaming is the primary state in which out-of-body experiences occur (Shields 1978).

The content of dreams is also of interest to researchers, but such analyses require a corpus of dreams from many cultures. Comprehensive or large-scale cross-cultural research of dream content remains a challenge (Bourguignon 1972; Shields 1978).

How do different cultures experience and interpret dreams?

In many human societies, people use dreams to seek and control supernatural power, information or aid. Religious experts often use their dreams to divine or perform cures. Particular dream elements may appear and give the dreamer

the right to assume certain culturally-restricted roles. These dreams are often obtained through certain practices such as fasting or sleeping alone. Such beliefs and practices are correlated with each other, prompting them to be labeled “using dreams to seek and control supernatural powers.” (D’Andrade 1961)

- Hunter-gatherers are more likely to use dreams to seek and control supernatural power than food producers. The same is true for simple horticulturalists rather than intensive agriculturalists, societies with small, rather than large communities, and egalitarian societies versus those with class stratification (D’Andrade 1961).
- D’Andrade (1961, 321) theorized that “anxiety about being isolated and on one’s own” would lead to dreams about magical helpers. Extrapolating from Barry, Child, and Bacon (1959)’s finding that hunter and gatherer children have more pressure toward self reliance, independence, and achievement than food producers, D’Andrade expected that hunter-gatherers would have more anxiety about aloneness and therefore would be more likely to have dreams seeking to control supernatural power (D’Andrade 1961; Barry, Child, and Bacon 1959).
- Societies with non-possession trances are most likely to use dreams to seek and control supernatural power (Bourguignon 1972).
- Societies in which sons live in different villages or local groups than their parents – usually matrilineal societies – are more likely to use dreams to control supernatural power than patrilineal societies (D’Andrade 1961)

Exercises Using eHRAF World Cultures

Explore some texts and do some comparisons using the [eHRAF World Cultures](#) database. These exercises can be done individually or as part of classroom assignments. See the [Teaching eHRAF Exercise on Altered States of Consciousness](#) for suggestions.

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Glossary

Matrilocal A pattern of marital residence where couples typically live with or near the wife's parents

Patrilocal A pattern of marital residence where couples typically live with or near the husband's parents

Credits

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Photo Credits

Amanita muscaria, Stewart Meyers; Princeton Shaman, Princeton University Art Museum; Scythian Burial, L. Oleczak / Archaeology News Network; Siberian Shaman, Wikimedia Commons; Sami Shaman, Copperplate by O.H. von Lode after Knud Leem / Wikimedia Commons.

References

- Barry, Herbert, III, Irvin L. Child, and Margaret K. Bacon. 1959. "Relation of Child Training to Subsistence Economy." *American Anthropologist* 61 (1): 51–63. <https://doi.org/10.1525/aa.1959.61.1.02a00080>.
- Bourguignon, Erika. 1968. *A Cross-Cultural Study of Dissociational States*. Columbus, Oh.: Research Foundation, Ohio State University.
- . 1972. "Dreams and Altered States of Consciousness in Anthropological Research." In *Psychological Anthropology*, edited by Francis L. K. Hsu, 403–34. Cambridge, Ma: Schenkman Publishing Company.
- . 1976. *Possession*. Chandler & Sharp Series in Cross-Cultural Themes. San Francisco, Ca: Chandler & Sharp Publishers.
- Bourguignon, Erika, and Thomas Evascu. 1977. "Altered States of Consciousness Within a General Evolutionary Perspective: A Holocultural Analysis." *Behavior Science Research* 12 (3): 197–216. <https://doi.org/10.1177/106939717701200303>.
- Burger, Richard L. 2011. "What Kind of Hallucinogenic Snuff Was Used at Chavín de Huántar? An Iconographic Identification." *Journal of Andean Archaeology* 31 (2): 123–40. <https://doi.org/10.1179/naw.2011.31.2.123>.

- Diehl, Richard A. 2004. *The Olmecs: America's First Civilization*. New York, Ny.: Thames & Hudson. <http://ehrafarchaeology.yale.edu/document?id=nu95-043>.
- D'Andrade, Roy. 1961. "Anthropological Studies of Dreams." In *Psychological Anthropology: Approaches to Culture and Personality*, edited by Francis L. K. Hsu, 296–332. Homewood, Il.: Dorsey Press.
- Greenbaum, Lenora. 1973. "Societal Correlates of Possession Trance in Sub-Saharan Africa." In *Religion, Altered States Of Consciousness, And Social Change*, edited by Erika Bourguignon, 39–57. Columbus, OH: Ohio State University Press.
- Henshilwood, Christopher S, Erico d'Errico, Royden Yates, Zenobia Jacobs, Chantal Tribolo, Geoff A. T. Duller, Norbert Mercier, et al. 2002. "Emergence of Modern Human Behavior: Middle Stone Age Engravings from South Africa." *Science*. Vol. 294. <https://doi.org/10.1126/science.1067575>.
- Hove, Michael J., Johannes Stelzer, Till Nierhaus, Sabrina D. Thiel, Christopher Gundlach, Daniel S. Margulies, Koene R. A. Van Dijk, Robert Turner, Peter E. Keller, and Björn Merker. 2015. "Brain Network Reconfiguration and Perceptual Decoupling During an Absorptive State of Consciousness." *Cerebral Cortex*, 1–9. <https://doi.org/10.1093/ycercor/bhv137>.
- Kirch, Patrick Vinton. 1985. *Feathered Gods and Fishhooks: An Introduction to Hawaiian Archaeology and Prehistory*. Honolulu, Hi.: University of Hawaii Press.
- . 1988. *Niautoputapu: The Prehistory of a Polynesian Chiefdom*. Seattle, Wa.: The Burke Museum.
- Kolata, Alan. 1993. *The Tiwanaku: Portrait of an Andean Civilization*. Cambridge, Ma.: Blackwell.
- Lewis-Williams, James D., and Thomas A. Dowson. 1993. "On Vision And Power In The Neolithic: Evidence From The Decorated Monuments." *Current Anthropology* 34 (1): 55–65. <https://doi.org/10.1086/204136>.
- Rolle, Renate, and Gayna Walls. 1989. *World of the Scythians*. London: B. T. Batsford. <http://ehrafarchaeology.yale.edu/document?id=ma51-002>.
- Rudenko, S. I. (Sergei Ivanovich), and M. W. Thompson. 1970. *Frozen Tombs of Siberia: The Pazyryk Burials of Iron Age Horsemen*. Berkeley: University of California Press. <http://ehrafarchaeology.yale.edu/document?id=rl60-002>.
- Shaara, Lila, and Andrew Strathern. 1992. "A Preliminary Analysis of the Relationship Between Altered States of Consciousness, Healing, and Social Structure." *American Anthropologist* 94 (1): 145–60. <https://doi.org/10.1525/aa.1992.94.1.02a00090>.
- Sharer, Robert J., and Sylvanus Griswold Morley. 1992. *The Ancient Maya*. Stanford, Ca.: Stanford University Press.

- Shields, Dean. 1978. "A Cross-Cultural Study of Out-of-Body Experiences, Waking, and Sleeping." *Journal of the Society for Psychical Research* 49.
- Swanson, Guy E. 1973. "The Search for a Guardian Spirit: A Process of Empowerment in Simpler Societies." *Ethnology* 12 (3): 359–78. <https://doi.org/10.2307/3773123>.
- . 1978. "Trance and Possession: Studies of Charismatic Influence." *Review of Religious Research* 19 (3): 253–78. <https://doi.org/10.2307/3510127>.
- Twohig, Elizabeth Shee. 1981. *The Megalithic Art Of Western Europe*. 1st ed. Oxford: Clarendon Press.
- Watson, Aaron. 2001. "The Sounds Of Transformation: Acoustics, Monuments And Ritual In The British Neolithic." In *The Archaeology Of Shamanism*, edited by Neil S. Price, 1st ed., 178–92. London: Routledge.
- Wesler, Kit W. 2012. *An Archaeology Of Religion*. 1st ed. Rowman & Littlefield Publishing Group, Inc.
- Winkelman, Michael. 1986. "Trance States: A Theoretical Model and Cross-Cultural Analysis." *Ethos* 14 (2): 174–203. <https://doi.org/10.1525/eth.1986.14.2.02a00040>.
- . 1990. "Shamans And Other 'Magico-Religious' Healers: A Cross-Cultural Study Of Their Origins, Nature, And Social Transformations." *Ethos* 18 (3): 308–52. <https://doi.org/10.1525/eth.1990.18.3.02a00040>.
- . 2006. "Cross-Cultural Assessments of Shamanism as a Biogenetic Foundation for Religion." In *The Psychology of Religious Experience*, edited by Patrick McNamara. Vol. 3. Where God and Science Meet. Westport, Ct.: Prager Publishers.