

PSYCHOACTIVE SUBSTANCES IN DIFFERENT CULTURES AND RELIGIOUS PRACTICES

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Summary. Many drugs are used for their mood and perception change effects, including those with accepted uses in medicine and psychiatry. There is archaeological evidence for the use of psychoactive substances dating back at least 10 000 years, as well as historical data for cultural purposes in the last 5000 years. Some psychoactives, particularly hallucinogens, have been used for religious purposes since prehistoric times. Examples of traditional entheogens include: kykeon, ambrosia, iboga, soma, peyote, ayahuasca. Other traditional entheogens include cannabis, ethanol, ergine, psilocybe mushrooms, opium. Although entheogens are taboo and most of them are officially banned in Christian and Islamic societies, their ubiquity and importance in terms of different spiritual traditions of other cultures is unquestioned.

Key words: *psychoactive substances, drugs, entheogens, hallucinogens*

Many drugs are used for their mood and perception change effects, including those with accepted uses in medicine and psychiatry. Classes of drugs frequently used recreationally include: *stimulants, hallucinogens, hypnotics, analgesics* [16]. There is archaeological evidence for the use of psychoactive substances dating back at least 10 000 years, as well as historical data for cultural purposes in the last 5000 years [14]. Some psychoactives, particularly hallucinogens, have been used for religious purposes since prehistoric times.

There is speculation that hallucinogenic mushrooms and cacti, heavily influenced the major religions of India, Americas, Middle East and Europe, including Christianity [9, 17]. Entheogen in the narrow sense, is the psychoactive substance used in psychotherapy, religious, spiritual or shamanic context. The term is derived from two words of ancient Greek, (*entheos*) and (*genesthai*). The literal meaning of the word entheogen is “that which causes God to be within an individual”. Histori-

cally, entheogens are mostly derived from plant sources and were used in various traditional religious contexts.

Examples of traditional entheogens include: *kykeon*, *ambrosia*, *iboga*, *soma*, *peyote*, *ayahuasca*. Other traditional entheogens include *cannabis*, *ethanol*, *ergine*, *psilocybe mushrooms*, *opium* [9, 22, 23].

Kykeon is Greek and drinks that are used in the Eleusinian mysteries - the opening ceremony of the cult of Demeter and Persephone. Kykeon is mentioned in the texts of Homer "Iliad", and is described as consisting of barley, water, herbs and ground goat cheese. In an attempt to solve the mystery of how many people over a period of two millennia could constantly try revelations, during the climax of the ceremony of the Eleusinian Mysteries, it is postulated that the barley used in the Eleusinian kykeon is parasitized by *ergot* and that the psychoactive properties of fungi lead to strong experience mentioned by participants in Eleusis [15].

Ergot – *Claviceps purpurea* is a parasitic fungus that occurs in some grasses and cereals, mostly rye. In the class of infected rye grains instead appear purple cells in the form of horn, hence the name of the fungus. Ergot contains psychoactive alkaloids (ergotamine) and in larger doses is toxic to humans (ergotism). Since then it gets styptic drug that is used in medicine.

While doing experiments with ergot, looking styptic, the Swiss chemist Albert Hofmann discovered the psychoactive properties of the alkaloid ergotamine [10] and shortly thereafter synthesized LSD.

Albert Hofmann, with Uosan and Rukh, substantiate the hypothesis that the sacred drink in ancient Eleusinian Mysteries (kyukeon) contained barley or rye infected with ergo, which had caused hallucinations in dedicate to Mystery.

In the Middle Ages, there are known outbreaks among humans and animals caused by bread made with ergot-infected grain. They are called "Fire of St. Anthony" or "Holy Fire (ignis sacer)" – now called ergotism.

Delphic oracle was founded eight centuries BC and is the most popular and renowned in antiquity holy place in the Mediterranean. This is best documented religious site of the classical Greek world [11]. Pythia is the name of any prophet-priestess of the god Apollo in his sanctuary at Delphi, located at the foot of Mount Parnassus. When giving predictions Pythia sat on the tripod of Apollo in the temple, chewed bay leaves, fell into a trance, sent by Apollo, and in this state gave predictions of who came to inquire of God. Since speech was incomprehensible and unrelated, her words were interpreted by special priests.

There is a hypothesis that the prophet-priestess of the god Apollo used **hallucinogenic substances**, most likely plant which produced the visions – **cannabis, opium or daydream**. According to another hypothesis, a tripod was ground fissure from which emerged intoxicating gases – **nitrous oxide, or ethylene** that induced a state of trance.

Among the most famous ancient writers who speak for the sanctuary of Apollo at Delphi are Pindar, Herodotus, Aeschylus, Sophocles, Euripides, Plato, Aristotle, Diodorus, Strabo, Pausanias, Plutarch, Livy, Ovid, Luke, Julian, Justin [11].

Soma or Haoma was a ritual drink of importance among the early Indo-Iranians, and later and greater Persian Vedic cultures [2]. The active ingredient of Soma is presumed by some to be ephedrine, an alkaloid with stimulant and (somewhat debatable) entheogenic properties derived from the soma plant, identified as ***Ephedra pachyclada***). However, there are also arguments to suggest that Soma could have also been Syrian Rue, Cannabis, Belladonna or some combination of any of the above plants. In the Vedas, Soma is portrayed as sacred and as a god. The god, the drink and the plant refer to the same entity. Two holy drinks exist: Soma for the immortal soul and Amrita for the immortal body. In this aspect, Amrita is similar to the Greek ambrosia; both are what the gods drink, and what made them deities. Indra and Agni are portrayed as consuming Soma in copious quantities. The consumption of Soma by human beings, as attested in Vedic ritual, probably results from the belief that it bestows divine qualities on them [20, 21].

Entheogens have played a key role in the spiritual practices of American culture for millennia [5, 6]. Not one of the **cacti** of the New World has psychoactive properties, but arguably the most famous among them is **Lophophora williamsii** [18]. This cactus, called by locals meskal or peyote (more accurate peyotl) semi deserts grows from central Mexico to the Rio Grande River. There is archaeological evidence that it was known to the locals at least before 8000 and because of its particular properties it has for centuries played an important role in religious beliefs and rituals. Since 1620 this plant was condemned by the Inquisition as contrary to the purity and integrity of the holy Catholic faith.

However, there is a large group of people who continue to use peyote in a traditional manner. Over the 19-th century, its cult spread among the Indian tribes north of the Rio Grande and soon conquered the Great Plains purposes. This cult united traditional shamanism to Christianity, according to Indian Christian God is the same with the Great Spirit who created the world and left a piece of peyote in its power, and Jesus is the man who gave the people this plant. Peyote was used in Saturday's gathering in traditional tents, where the Indians under its influence prayed and sang in the morning ceremony which ended with a common breakfast. Core values of this religion are brotherly love, care, self-denial and plenty of alcohol.

In 1918, its followers were united to resist persecution and founded the American Church Indigenous (Native American Church), which today has around 250,000 followers, i.e. one third of all Indians in the U.S. The organization has managed to resist the attempts use of *peyote* to be outlawed and by a 1970 act of Congress it was officially legalized as part of the ritual.

Peyote quickly became known in Europe and many scientists and intellectuals were captivated by its ability to immerse the individual in another reality. Peyote opened the doors of perception – that is the title of Aldous Huxley's book dedicated to his experiences under the influence of *mescaline*.

Along with the psychological research the effective start of peyote was actively sought. In 1900 it was already known that this is an alkaloid called mescaline – colorless oil, soluble in water, alcohol and chloroform.

The structure of *mescaline* was established with certainty only after Shpet in 1919 managed to synthesize it in a chemical laboratory. It has been isolated from peyote and other alkaloids, e.g. lofoforin which has strychnine similar properties. Although to a lesser extent, they also contribute to the general effect of peyote. As of 1925 all that could be known about peyote and mescaline was known; today mescaline and LSD have become standard for *hallucinogenic* substances [26, 31].

Indigenous peoples of South America used a wide variety of entheogens. Prominent example is **ayahuasca** [7]. **Dimethyltryptamine containing** ayahuasca is used primarily as a religious sacrament. Those whose usage of ayahuasca is performed in non-traditional contexts often align with the philosophy and cosmologies, associated with ayahuasca shamanism, as practiced among indigenous peoples such as the Peruvian Amazon Urarina. Ayahuasca is referred to as nectar of the gods. It has strong hallucinogenic properties, but is significantly softer than pure DMT, mainly due to lower concentration. "Spiritual experiences" are also characteristic of ayahuasca.

Iboga tree is the main pillar of the religion practiced Bwiti in West Central Africa, mainly Gabon, Cameroon and Congo, which use alkaloid containing plant roots in a number of ceremonies [5, 7].

Iboga is taken in large doses by initiates when entering the religion, and is regularly eaten in smaller doses associated with rituals and tribal dances, usually performed at night. Bwitists were subject to persecution by Catholic missionaries and today are totally opposed to the growing religious movement of Bwiti. Leon M'ba, before becoming the first president of Gabon since 1960, protected religion Bwiti and use of iboga in French colonial courts. Council of Ministers of the Republic of Gabon announced Tabernanthe iboga that is a national treasure on June 6, 2000.

At lower doses Iboga has a stimulant effect and is used to maintain vigilance in hunting. The best-known entheogen using culture of Africa is Bwitists, using detergent based peel Iboga (Tabernanthe iboga) [7].

One of the most widely used entheogens is **cannabis** which was used in China, Europe and India, and in some cases for thousands of years. It also appeared as part of religions and cultures, such as movement Rastafari, of Sadhus of Hinduism, the Scythians, Sufi Islam, and others [3].

Cannabis has an ancient history of ritual use as an aid to cross and is traditionally used in religious context throughout the Old World. *Herodotus* wrote about the early ceremonial practices by the Scythians, who are considered to have occurred from 5-th to 2-nd century BC. Early Greek history and modern archaeology indicate that the peoples of Central Asia have been using cannabis 2500 years ago [3, 14].

Cannabis or ganja is associated with the worship of Hindu deity Shiva, who is popular as he considered that plant hemp. Bhang to Shiva offers images, especially the festival Shivratri. This practice is particularly witnessed in the temples of Benares, Baidynath and Tarakeswar [20, 21].

Early Christians used cannabis oil for medicinal purposes and as part of baptism to confirm the forgiveness of sins and “right of passage” into the Kingdom of Heaven [1]. *According to the Living Torah*, cannabis was an ingredient of holy anointing oil mentioned in various sacred Hebrew texts [7, 12]. The herb of interest is best known as *kaneh-bosm* (Hebrew). This is mentioned several times in the Old Testament as a bartering material, incense, and a component of the holy anointing oil used by the high priest of the temple [12].

In ancient Germanic culture cannabis is linked to the German love goddess Freya. The collection of works is associated with an erotic high festival. It was believed that Freya lived as a fertile force in the female flowers of the plant and the ingestion made one affected by this divine force.

Ethanol is a powerful psychoactive substance and one of the oldest recreational drugs. Alcohol is oldest and still most common substance that causes relaxation, excitement or anger. Archaeological evidence suggests that the vine was domesticated by man with corn around 6000 BC and that all civilizations of the ancient world – Egypt, Greece, Rome, knew alcohol – mainly beer and wine [13].

When the Indo-Europeans reached the world of the Caucasus and the Aegean, they encountered *wine, the entheogen of Dionysus*, who brought it with him from his birthplace in the mythical Nysa, when he returned to claim his Olympian birthright.

Dionysus is the god of wine and sexual orgies. He was accompanied by maenads and satires - people with goat feet. Their leader is Pan, the god of flocks.

The Nordic nations also had their own alcoholic beverages. Germans and Slavs drank mead – “medovina”, steppe peoples - fermented milk – “koumiss” and Chinese people drank brewed from fermented rice.

Islam strictly forbids alcohol, but despite the bad treatment of it, namely the Arab alchemists were the first to receive it in pure form. They believed that distillation reached the soul of intoxicating drinks.

Alcohol has gained popularity among the masses only in the 16th century, when it became cheaper and pubs everywhere started springing up.

The indigenous peoples of Siberia (from which the term shaman has been attached) used **fly mushroom** *Bride* (*Bride muscaria*) as an entheogen. Ancient inebriant Soma, mentioned frequently in the Vedas, seems to be consistent with the effects of an entheogen. The active ingredient in Soma is supposed by some to be ephedrine, an alkaloid with stimulant and (less controversial) entheogenic properties arising from the Soma plant, identified as *pachyclada Ephedra* [2]. However, there are arguments to show that Soma may have been Syrian Rue, cannabis, Belladonna, or any combination of the above plants.

The *muscimol* containing in *Amanita mushroom* has been used for ritual purposes in prehistoric Europe. Sponge itself ingested in minimum quantities, in most cases is not fatal, but serious poisoning is common when mistaken for the bride,

if these quantities are large. Some people had consumed it in certain quantities to get hallucination – in the role of a substance causing visions it is especially known for the rite of the Vikings and Siberian shamans. There are assumptions that it was sacred mushroom in early Christianity. Similarly flying sponge is dedicated to *Odin*, the god of ecstasy and henbane stood under the dominion of the thunder god – *Thor* in Germanic mythology – and *Jupiter* among the Romans [28].

Mushrooms have a particular role in the mythology of almost all nations thought that they are children of thunder or being reborn phallus of the dead men, in all cases the magical powers of mushrooms – good or bad – are not questioned. If the religions of ancient mushrooms were overshadowed by other plants in Siberia, their use until recently was preserved in its original form. All European explorers turned their attention to the role of exclusive in shamanic rituals flyagaric. To fall into a trance, shamans drank a drink made from fly agaric; furthermore, *fly agaric* used ordinary people, apparently to experience unusual feeling. Before alcohol was brought by the Europeans, the sponge was popular entertainment among certain peoples in Northeast Asia.

Many authors believe that the popular in medieval Scandinavia *berserk* owes its fame to flyagaric. Berserk means man-bear, so they called the people who suffered particular state with a drink made from fly agaric. The drink is usually used before battle and by those soldiers who get into a rampage and fury, causing the enemy holy terror. After the battle they took several days for recovery [25, 30].

Hallucinogenic Psilocybe was known to the aboriginal Mexicans as **teonanácatl** (“divine mushroom”) and became served at the coronation of Montezuma II in 1502. After the Spanish conquest of the Americas, the use of hallucinogenic plants and fungi, and other pre-Christian traditions, were forcibly suppressed and driven underground [5, 8].

The seeds of several **tropical vines** have long been used by Indians in Mexico for ritual purposes. All of these vines belong to the family Convolvulaceae.

The active substance is contained in the seeds, they are ground, soaked in water, water filter and drink, but the godless that do not hold the ritual, simply chewed.

The group of natural products belong **deliriant**s used since the dawn of human civilization as a healing and “magic” tools (belladonna, mandragora, datura, reverie). Later many chemical compounds were synthesized in their likeness, some of which are among the most active known psychoactive substances [4, 29].

Drugs containing deliriant of this kind have a long history of use. Aztecs used them for rituals in the Temple of the Sun. Shamans of the Peruvian Indians practiced sacred *datura* for dedication to youth in the mysteries of the spirit world. Prophet of the temple of Apollo at Delphi used small doses datura, before making their predictions. Homer mentions datura in their epic Odyssey. The priests of the ancient Thracians on our lands used deliriant in his ceremonies. Seeds and leaves of *Datura* were added to ganja (cannabis) in India to obtain additional mental health

effects of smoking. In India, trance then drugged with delirianti was part of cult ritual human sacrifices in honor of the goddess Kali.

Deliriantes are associated with Western history, especially in the period 15th - 17th century. This is the era of witches and their fanatical persecutors of Holy Church. Witchcraft can be seen as a continuation of ancient pagan traditions, resurrected in the form of a peculiar social and religious rebellion. Which is drugged by deliriantes of "magic" herbs (belladonna, mandragora, datura) specially prepared in various forms – ointments, powders, potions? It is known that the active alkaloids – atropine, hioscyamin, scopolamine, can penetrate the skin and affect the body.

From ancient times Mandragora is considered an aphrodisiac. This property was noted in the Old Testament, which describes how after its impact Rachel and Leah became pregnant and had children.

Fame and a means exciting amorous desires, has been sung by many ancient and medieval authors. Mandragora is often mentioned by Shakespeare, the play is another example of Mandragora Niccolo Machiavelli.

Such fame had another plants of the same family that grow in Central and Northern Europe. Among them, most familiar are *Scopolia carniolica*, *Arch of the door (Atropa belladonna)*, *Datura Stramonium* and *Day dream (Hyosciamus niger)*. The name of the plant – "Day dream", speaks well for its psychoactive properties.

The name of the **Bella donna** (beautiful woman) came from glory and vehicles for embellishment as due to its impact pupils wide by open and eyes look very shiny and black. Its other name by which it is known in this country is crazy ticket – hardly need to explain why. Linking all these plants with the release of sexual forces make them a natural component of ointments, used by witches. Many medieval women who experienced the impact of the plants remained with the firm conviction that they actually flew and communicated with spirits. There was a widespread belief that the ointments of the witches could turn people into an animal, usually a wolf, this conversion was called by medieval scholars likantropiya.

In many places in Europe, including Bulgaria, North America and Asia, there are drugs with properties of deliriant – ***Datura Stramonium***. Intoxication cause contained in the plant alkaloids – atropine, 1-hioscyamin, scopolamine. There are known about 15-20 species *Datura* with sufficient content of alkaloids to induce strong psychoactive effects in the world.

In the books by Carlos Castaneda, there is a detailed description of the use of such ointments obtained from Indian *datura (Datura inoxia)*. Don Juan, Castaneda's teacher, not an isolated case – wizards and priests of many nations often use them to get into a condition suitable for communication with the spirit world.

The priests of the ancient Thracians also have used similar means to reach divine madness.

Drink from *datura* was used in India by followers of Kali, who fall into trance and expressed tribute to the goddess in the usual way for their sect, killing many people. Although rare, some of these plants are used to induce a kind of pleasure;

normally used is datura as the most widespread. The report of the Indian hemp Commission says that cannabis is sometimes mixed after with leaves of datura and an Indian smoking mixture that person falls into a special kind of delirium, in which "throws his clothes and saw horrible things, like snakes, scorpions and so etc." Datura leaves smoked some Arab tribes [4].

Cultivation of **Opium poppies** for food, anesthesia, and ritual purposes dates back to at least the Neolithic (New Stone) Age. In Sumerian, Assyrian, Egyptian, Indian, Minoan, Greek, Latin, Persian and Arab Empires each made widespread use of opium, which is the most powerful form of pain relief then available, allowing ancient surgeons to perform prolonged surgical procedures.

Opium is mentioned in the most important medical texts of the ancient world, including the Ebers Papyrus and the writings of Dioskorid, Galen and Avicenna.

Widespread medical use of unprocessed opium continued through the American Civil War before giving way to morphine and its successors, which can be injected at a precisely controlled dosage [19, 27].

CONCLUSION

Entheogens have been used in ritualized context for thousands of years, their religious significance is well established in anthropological and contemporary evidence. Entheogens have been used in various ways, including as part of the established religions, secularly for personal spiritual development as a tool (or "plant teachers") to enhance the mind, secularly as recreational drugs, and for medical and therapeutic purposes. The use of entheogens in human culture and tradition is nearly ubiquitous throughout recorded history.

Although entheogens are taboo and most of them are officially banned in Christian and Islamic societies, their ubiquity and importance in terms of different spiritual traditions of other cultures is unquestioned.

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