

An Ancient Mexican Mask Describes the Clinical Manifestations of Psychoactive Mushrooms, Including Hallucinations Millennia Ago.

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Abstract

Background: Archaeologists, historians, and physicians have frequently examined historical pieces including images or sculptures (visual arts) and found evidence that allow them to make interpretations under certain assumptions. Iconography examines archaeological evidence and provides clues and symbols for more information about the past.

This manuscript aims to highlight "iconography" as another source for studying the history of health literacy. We hope to persuade professional readers of health and medicine to begin researching and reporting the rich iconographic figures, particularly in Iran, attributed to health and medicine across the country.

Methods: We have evaluated a pre-Columbian ceramic mask from the Olmec civilization (1500-400 BCE, south-central Mexico) discovered in 1955 by the famous archaeologist Matthew Williams Stirling and is kept at the Museo Internazionale delle Ceramiche in Faenza, Italy.

Results: This mask consists of two halves (earth jaguar and divine human). It looks like the skull that is transforming from an anxious jaguar earthly creature into a perfect and holy figure of the human face. First, this hybrid deity mask manifests auditory and visual hallucinations from a medical and psychological perspective. The jaguar's ear is small with no hole. However, its human ear is shaped like a horn with a large hole which could symbolize a relatively more remarkable hearing ability. The jaguar's eye is just an empty and presumably blind hole. Yet, the celestial eye is anatomically intact, suggesting the ability to see beyond the eyeless earth creature. Additionally, the human (holy) half of the figurine has a skull and nose that resembles the cap and stem of a mushroom. Enhanced visual and auditory abilities, today classified as hallucinations, provide evidence of psychoactive chemicals such as the effects of magic mushrooms containing psilocybin.

Conclusion: The pre-Columbian Olmec civilization iconographically documented magic mushrooms' medical and psychological effects long before any medical texts described their manifestation.

Keywords: History of Toxicology, Mushroom, Hallucination

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INTRODUCTION

Archaeologists, historians, and physicians have frequently looked at historical pieces (visual arts) and events and found evidence that allow them to make diagnoses under certain assumptions. The elements of an image or a sculpture in iconography provide valuable clues advantageous in numerous areas such as medical and psychological diagnoses [1, 2].

This article evaluates a pre-Columbian ceramic mask from the Olmec civilization (1500-400 BCE, south-central Mexico) discovered in 1955 by the famous archaeologist Matthew Williams Stirling (1896 - 1975 CE) [3]. This hybrid deity mask is kept at the Museo Internazionale delle Ceramiche in Faenza, Italy (figure 1) [4]. The mask is divided into two halves; a half jaguar head (left) and a half-human

head with a scalp and nose that looks like a half hat and the stem of a (magic) mushroom containing psilocybin (right).

In non-medical literature, it is believed that these masks show early use of magic mushrooms in pre-Columbian ceremonial events and symbolize the transformation of an earthly creature using magic mushrooms in pre-Columbian times in Central America [5] Likewise, research on prehistoric rock art from the Tassili caves in southern Algeria and near Villar del Humo in Spain claims to represent species of (magic) mushrooms containing psilocybin and psilocin from 5,000 to 7,000 BCE [6, 7].

The consumers of magic mushrooms (Figure 2) experience feelings of relaxation, euphoria, visual disturbances, delusions, and hallucinations [8]. These findings may have been attributed to supernatural sources, as the power of the "divine" was deeply rooted in pre-Columbian times. Besides

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Figure 1. Ceramic pre-Columbian mask from the Olmec civilization (1500 to 400 BCE Mask of Mexico) with permission [4].



Figure 2. *Psilocybe azurescens*, courtesy of Paul Kroeger, Vancouver Mycological Society, Vancouver, BC

the theory of celestial transformation, this mask could be evaluated from a medical (toxicological) and psychological point of view.

Observation

Two halves of this mask (earth jaguar and divine human) are iconographic compared in Table 1. It appears that the skull transforms from an anxious and greedy-looking jaguar head to a relaxed, regular human face that has a scalp resembling a mushroom cap, suggesting psychoactive effects.

The jaguar's ear is concrete, relatively small without a hole. The right ear is trumpet ears (horn-shaped) with a large hole which could symbolize the increased hearing ability that could perceive divine speech. The jaguar's eye is just an empty hole and presumably blind. However, the celestial eye on the right is anatomically intact and perhaps able to see past the eyeless earth creature on the left.

A tightly closed mouth with the tongue inside and regular teeth on the divine side can be a sign of a calm and without

hunger state, suggestive of euphoria and lack of appetite common in the consumption of stimulants. A typical nose is also compatible with the fact that olfactory hallucinations are very rare.

DISCUSSION

The International Classification of Diseases (ICD-10) defines the clinical manifestation of hallucination as false sensory perception in the absence of external stimuli [9], primarily auditory, visual, and tactile. The leading causes of hallucination are psychological disorders and structural, infectious, functional, metabolic, and toxic exposures, including the consumption of psychoactive mushrooms.

The ancient use of psilocybin-containing fungi, including *Psilocybe caerulescens*, *Psilocybe cubensis*, *Conocybe cyanopus*, *Panaeolus foenisecii*, *Gymnopilus spectabilis*, and *Psathyrella foenisecii*, is widely recognized in ceremonies, especially in Central America. The perceptual distortions induced by magic mushrooms in antiquity could have led to

Table 1. Iconographic comparison of the two halves of the mask (earthly jaguar and divine human).

Elements	Animal earthy half (left)	Human divine half (right)
General	Anxious and greedy	Relaxed and moderate
Skull	Animal (jaguar) shape	Human shape with mushroom cap scalp
Ear	Concrete, relatively small with no hole	Horn shaped (trumpet ears) with a large hole
Eye	Eyeless (an empty hole)	Normal with anatomical elements
Nose	Animal (tiger) shape	Normal
Mouth	Open with irregular teeth	Closed with regular teeth
Tongue	Outside	Inside

auditory and visual hallucinations with a feeling of depersonalization and separation from the environment and tachycardia, hypertension, tachypnea, hyperthermia, diaphoresis, and gastrointestinal problems [10].

The Mexican mask suggests the divine transformation of the human soul in a metaphorical sense, as archaeologists suggest. It could also provide supporting evidence on auditory and visual hallucinations using the [ritual] use of the magic mushroom. This motif is probably the first documentation of a drug-induced hallucination a few millennia before the phenomenon was scientifically explained.

We hope to persuade professional readers of health and medicine to begin researching and reporting the rich Persian iconographic figures attributed to health and medicine across the country.

LIMITATION

This article has been developed on the basis of regular iconographic studies. Therefore, it is the subject of speculation and the interpretations and claims need to be taken into account with caution.

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