

Plants and Psychoactive Substances in Health and Culture

Report >
Plants

The symposium 'Plants in Health and Culture' focused on the role of plants (wild or cultivated in herbaria and gardens) in the various cultures, health care and knowledge systems of Europe, Central Asia and India. This paper discusses one of the symposium themes: the role of plants as sources of psychoactive compounds.



Kashikar, CC (1990) Identification of Soma, Pune/Dr. Kahiragar

Amanita muscaria

By Jan Houben

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David S. Flattery discussed his research, based on a study co-authored with Martin Schwartz in 1989, on the Indo-Iranian sacred plant soma/haoma. He argued that soma/haoma ceremonies were based on the use of *Peganum harmala* (harmel), a common intoxicating plant found in Central Asia. Flattery argued that priests drank soma/haoma in ceremonies, which could contain a drug to expose deceitful intentions. In this way priests

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demonstrated their integrity. The term soma/haoma (derived from *sauma or *su, meaning 'to press, extract by mortar and pestle') did not originally refer to a plant, but the part of the ceremony where the drug ephedrine was extracted from the plant ephedra. Soma/haoma thus came to be synonymous with ephedra. Ephedra, however, is not intoxicating on its own; an active drug needs to be added. The necessity of using mortar and pestle in the ceremony favours harmel as this active drug.

There is, however, little ethnographic evidence for the combination of

harmel and ephedra in Iran, and the published pharmacological evidence for their interaction is indirect. A clinical experiment may negate this aspect of Flattery's argument.

Flattery refuted the claims of V. I. Sarianidi to have identified haoma temples in Central Asia; the theory that the Rigveda soma plant, *Amanita muscaria*, was an intoxicant that disappeared and was replaced by substitutes or different ceremonies; and the proposition that ephedra, even if it does have stimulant properties, was consumed as soma/haoma in order to experience stimulation.

Jan Houben also addressed the problem of identifying soma/haoma, though arriving at different conclusions. He gave an overview of two centuries of research on soma/haoma, including literary reflections on current theories, such as those of Aldous Huxley. Houben pointed out that while the effects of psychoactive substances have often been considered, other factors influencing the physiology and conceptual state of performers have been neglected. He agreed with Flattery that ephedra played an important role and that stimulation per se was not the main goal of soma/haoma rituals. Houben further argued that ritual preparations (such as fasting and remaining silent) in combination with the stimulant properties of ephedra were sufficient to produce experiences of 'visions' or 'hallucinations'. Current research tends to associate such experiences only with strong hallucinogens

as modern subjects do not prepare themselves in the same way, embarking on their 'trips' on full stomachs and continuing with habits such as drinking coffee and smoking.

The identification of soma/haoma as a strong hallucinogen, for example Wasson's 1969 proposal of it being *Amanita muscaria*, seems unwarranted. Soma/haoma being a stimulant such as ephedra, however, does suit the evidence quite well – especially the evidence of Vedic ritual which points to the use of a single plant for the preparation of the sacred Soma juice. The lack of available quality ephedra when the Vedic people migrated from mountainous areas of Iran and Afghanistan explains the use of substitutes in Vedic rituals which otherwise reflect the basic structure of ancient rituals.

Opium

C.C. Bakels discussed the search for the original habitat of the opium poppy, *Papaver somniferum* L. Many varieties of the *Papaver* crop have long been in existence; more than 300 landraces and advanced cultivars are known. *Papaver setigerum* DC is widely accepted as the progenitor. The primary distribution of the plant is difficult to establish, but its nuclear area is commonly held to lie in the western Mediterranean: Italy, northern Africa, eastern Spain, the Mediterranean coast of France and the Mediterranean islands. *Papaver* must first have been used in this area.

Bakels points out that *Papaver* turns up regularly in the first farming communities of western Central Europe. The oldest finds are seeds, preserved by charring or waterlogging, and pollen. These finds come from excavations in, somewhat surprisingly, the German Rhineland and the south-eastern part of the Netherlands and are dated to 5300 BC (calibrated radiocarbon dates). The well-known finds in the Alps and surrounding area are younger, but an older find recently appeared in Italy.

The opium poppy spread from Western Europe to the rest of Europe, the Near East and Egypt, Asia and further afield. Since the capsules which provide the latex and are the main source of psychoactive substances do not preserve well, it is unclear when the opium poppy

was first used as a drug. An unusual vessel found in one of the oldest farming communities in western Central Europe suggests that the plant was not only grown for food. The first explicit evidence stems from a Sumerian clay tablet (end third millennium BC) found in Iraq which seems to contain a description of the incision in the capsules.

Cannabis

Arno Hazekamp's contribution concerned cannabis, mainly famous for its narcotic effect. The finding that the human body produces its own cannabis-like chemicals has aroused extensive scientific interest. But because of the large number of compounds identified in the cannabis plant, it is difficult to ascertain the active ingredients of medicinal cannabis. Hazekamp overviewed the current status of medicinal cannabis and recent developments which made cannabis

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available on prescription at Dutch pharmacies from September 2003. Most of the medicinal effects of cannabis have never been proven by modern scientific research. Moreover, opinions about cannabis are usually based on political or emotional grounds rather than on facts. Hazekamp's goal is to separate the myths surrounding cannabis from the facts. The search for the active compounds compares different types of cannabis, which may improve the medicinal effect of preparations. <

Reference

- Flattery, David S. and Schwartz, Martin (1989) *Haoma and Harmaline: The Botanical Identity of the Indo-Iranian Sacred Hallucinogen 'Soma' and its Legacy in Religion, Language, and Middle Eastern Folklore*, Berkeley: University of California Press.

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Information >

The program, abstracts, poster presentation and a photographic report of the symposium can be found at www.plantsinhealthandculture.nl.

The speakers at the symposium have been invited to contribute to the proceedings (Jan Slikkerveer, ed.) which will be published at end of 2004.

The Symposium was sponsored by:

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