Plants and Psychoactive Substances in Health and Culture

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.

By Jan Houben

The opium poppy, Papaver somniferum L., is one of the most important plants in world history. 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.

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 Aldaas 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.

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The identification of soma/haoma as a strong hallucinogen, for example Wasson’s 1959 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 crew 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, for example, the Rhineland and the south-eastern part of the Netherlands and are dated to 5500 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 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


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