

### Ancient Substances

*Ancient Psychoactive Substances*. SCOTT M. FITZPATRICK, editor. 2018. University Press of Florida, Gainesville. ix + 328 pp. 73 illustrations. \$95.00 (cloth), ISBN 9780813056708.

*Substance and Seduction: Ingested Commodities in Early Modern Mesoamerica*. STACEY SCHWARTZKOPF and KATHRYN E. SAMPECK, editors. 2017. University of Texas Press, Austin. xvii + 220 pp. 38 illustrations. \$27.95 (paper), ISBN 9781477313879.

Reviewed by Janine Gasco, California State University, Dominguez Hills

The two volumes reviewed here examine specific plants and fungi that humans used in the past and present and that are either psychoactive (they alter the perceptions of the user) or “heighten sensory experience and amplify the perceived properties of things” (Marcy Norton, foreword to Schwartzkopf and Sampeck). These substances are ingested in some way, but they are not dietary staples. There is some overlap in the substances investigated in both volumes, except for sugar, which is not psychoactive, but is examined in the Schwartzkopf and Sampeck volume as a seductive substance. Both volumes are derived from symposia at professional meetings, the Fitzpatrick volume from the 2012 meetings of the Society for American Archaeology and the Schwartzkopf/Sampeck volume from the 2014 meetings of the American Society for Ethnohistory.

*Ancient Psychoactive Substances* is concerned principally with documenting the origin and historical use of a wide range of mind-altering plants and fungi by humans around the world based largely on archaeological data. Fitzpatrick and Mark Merlin note in their introduction that there is a growing preference for using the term “entheogen” for these substances because they often result in people perceiving their effects “as generating a deity or supernatural force within those who consume them” as “plants of the

gods” (p. 2). The Schwartzkopf and Sampeck volume also notes this property of certain plants and fungi.

It has been difficult to identify the early use of psychoactive substances because of their poor preservation in the archaeological record, which has forced researchers to rely on indirect evidence from artifacts or iconographic evidence. Fortunately, there have been major advances in a variety of analytical methods in recent years, and much of the evidence presented throughout the volume benefits from new collection strategies and new techniques of laboratory analyses, including DNA, phytochemical analysis, and organic residue analysis using gas chromatography/mass spectrometry.

The introduction to *Ancient Psychoactive Substances* provides a comprehensive overview of when and how numerous psychoactive substances came to be used by humans in the Old and New Worlds. It also includes an analysis of the chemical constituents of these substances and their effects on humans, which helps explain why many of them were used in certain ways. Many of the plants and fungi have multiple uses, including as food and medicine, in addition to spiritual, ritual, and ceremonial uses. The 11 chapters that follow focus on certain times and/or places when they were used.

Merlin and Robert Clarke examine *Cannabis* use across Eurasia, speculating that it was used for millennia as fiber, for its edible seeds and oil, and presumably for its mind-altering properties. A major focus of this chapter is on ritualistic funerary use of the plant in the first millennium BCE. Evidence suggests that fumes were inhaled, although it also was eaten, and that smoking *Cannabis* may not have become common until tobacco was introduced from the New World.

In her chapter on psychoactive substances in the eastern Mediterranean—mainly Bronze Age Cyprus—Zuzana Chovanec demonstrates the importance of chemical characterization research using gas chromatography/mass spectrometry. Whereas the use of intoxicants in the region has long been recognized, this research has identified the consumption not only

of fermented beverages but also of opium and wormwood.

The use of the many species of *Ephedra* is the focus of a chapter by Merlin. Humans have a long history of using *Ephedra* in both Eurasia and in the Americas, particularly in arid regions, as a stimulant and for its medicinal properties. Scholars have also suggested that it was widely used in Eurasia, perhaps along with other plants, for ritualistic psychoactive purposes as well, an interpretation that Merlin suggests needs further research.

Sean Rafferty explores four plants endemic to North America that have extensive geographical range and time depth and contain powerful intoxicating alkaloids: *Ilex* (caffeine), *Datura* (scopolamine), peyote (mescaline), and tobacco (nicotine). These plants can have dramatic effects on human physiology and cognition, and they are known to be used in a range of ritual activities. The chapter by Victor Thompson and Thomas Pluckhahn also focuses on *Ilex*. Their analysis of the cultural context of *Ilex* use in mortuary rituals in the Lake Okeechobee Basin of Florida leads them to conclude that “altered states require more than simply the ingestion of stimulants” (p. 142).

In a similar vein, Quetta Kaye focuses on cultural contexts for ritual drug use in the Caribbean, particularly as they relate to the acquisition of power. Evidence for the distribution of artifacts associated with cohoba, a substance that may be plant based (*Anadenanthera peregrina*) or may come from toads (*Bufa* spp.), suggests that access to and use of cohoba were not available to everyone and may have been linked to personal empowerment.

Two chapters examine the ritual ingestion of intoxicants among the Classic Period Maya. Daniel M. Seinfeld considers relationships between gender and intoxication events as they are portrayed on painted vases, concluding that the scenes depict the enactment and construction of gender identities. Jennifer Loughmiller-Newman focuses on the material correlates of Maya beverage production, specifically honey, maize, and agave beverages. Like Seinfeld, she relies primarily on scenes portrayed on painted vases, particularly those that include images of beverage production vessels and scenes that provide clues about beverage production.

The final three chapters focus on South America. Constantino Manuel Torres examines several psychoactive beverages, ayahuasca and yagé among others, that are produced by combining plants that have either beta-carbolines or tryptamines, both of which were needed to produce the desired results. Matthew P. Sayre considers the use of vilca (*Anadenanthera*

*colubrina*) and its role in Andean rituals, particularly at temple structures at the site of Chavín de Huántar where iconography depicts several psychoactive plants. In a chapter that compares the production of beers made from maize and molle (*Schinus molle*), Justin Jennings and Lidio M. Valdez conclude that molle brewing is much easier in terms of time, labor, and resource requirements. Serving maize beer at a feast, however, allowed the host to build greater social capital. They then apply this observation to the Wari state, where evidence suggests a greater use of molle beer, implying that Wari administrators were most interested in promoting feasting events that did not require a great deal of labor.

This volume is very informative, well referenced, and well illustrated. Except for the introductory chapter, however, there is no attempt to synthesize the data or to reach general conclusions, an effort that would have been very difficult given the broad geographical and temporal focus of the individual chapters.

The Schwartzkopf and Sampeck volume has a much narrower geographical and temporal focus, examining the cultural complexities of the use of certain substances—alcohol (pulque and rum), chocolate, tobacco, peyote, hallucinogenic mushrooms, and sugar—in Spanish colonial and postcolonial Mesoamerica (sixteenth to the nineteenth centuries). The editors worked hard to frame the entire volume in terms of a set of common questions and issues.

The volume begins with three insightful essays that contextualize themes found throughout the volume. The foreword, by Marcy Norton, explores issues related to processes of continuity and change and to underlying meanings linked to ingested substances from precolumbian Mesoamerica and sixteenth-century Spain. The preface, by Schwartzkopf and Sampeck, explains how the overall perspectives of the volume evolved from the original symposium papers. In contrast to the Fitzpatrick volume, authors are less concerned with questions about where and when; instead, with the benefit of a rich documentary record, they explore how social, cultural, economic, and political factors shaped the ways that these substances came to be desired, often by people who had not encountered them before. The introductory chapter by Sampeck and Schwartzkopf presents an overview of policies and practices of the Spanish colonial regime that affected both the use of indigenous plants/fungi and the processes by which introduced substances were adopted. The editors also explain that authors were asked to address a specific substance or item based on three concepts: the “thingyness” or properties of each item such as its scent, taste, touch, color, and texture, which are largely culturally defined;

the allure of the item and how and why it came to be desired; and how and in what context the item was ingested.

These practices are influenced by both the properties of and the nature of the allure of the item, as well as other factors. Economic considerations played key roles in production and distribution, influencing consumption patterns. Other dynamics that affected products such as sugar and rum include the slave trade and the Atlantic commercial networks. Tobacco and cacao, both indigenous plants, also became important products in international trade. Issues related to gender are also critical to the analysis of several substances; for example, we learn that women often prepared the ingested product. Similarly, ethnicity played a complex role in the production of certain cultigens, as production processes and uses changed to incorporate new ways of preparing and consuming indigenous substances (e.g., pulque, chocolate). The involvement of indigenous populations in the production of what had become commodities in the colonial economy (e.g., tobacco and sugar) also led to intriguing and unexpected behaviors. Finally, the symbolic meaning of some substances is addressed to explain how new items were introduced and the extent to which existing symbolic meanings were adopted or new meanings were developed.

The six chapters that follow are grouped thematically into two sections. The first focuses on issues of seduction and how consumers were seduced by new substances. Martin Nesvig in the first chapter examines the use of mushrooms of the genus *Psilocybe* and peyote, hallucinogens native to Mesoamerica with a long history in the region. Hallucinogenic mushrooms were called *teonanacatl*, which means food or flesh of the gods in the Nahuatl language, and were used in divination and shamanism (p. 27). In addition to considering the notion of cultural memory, Nesvig explores the process by which non-indigenous peoples in colonial Mesoamerica were seduced by these substances. In Chapter 2 Schwartzkopf focuses on the seductive properties of distilled sugar cane alcohol (*aguardiente*) for the Maya population of highland Guatemala and on the concept of commodity succession, in which a precolumbian fermented honey drink was replaced by *aguardiente*, as well as by rum and wine. A third seductive substance, cacao (used to make chocolate), is explored by Sampeck and Jonathan Thayne in the next chapter. In the colonial period Spaniards and others developed a taste for very transformed recipes for beverages made from this native substance. Using a large corpus of chocolate recipes, Sampeck and Thayne construct a dendrogram to chart the similarities and dissimilarities

of these recipes across South and Central America, Mexico, and Europe, which is a useful way to visualize how taste preferences—the core of chocolate’s seduction—varied across space.

The second part of the volume addresses what the editors call “substantial matters,” by which they mean the social, political, economic, and moral effects of the substances. It begins with a chapter by Joel Palka, who examines the development of the Lacandon Maya tobacco trade in the nineteenth century. While the Lacandon had long used tobacco for social and ritual purposes, the growing demand for tobacco led to changes in agricultural strategies and an increased involvement in trade. Shifting attitudes and practices associated with pulque, fermented maguey juice, are the focus of Joan Bristol’s Chapter 5, which explores ambivalent views about pulque’s health benefits and notions about purity and ethnicity in colonial Mexico City. The final chapter, by Guido Pezzarossi, takes a biopolitical approach to the production and consumption of sugar and alcohol in colonial Guatemala, identifying the inherent contradictions between Spanish concerns about the negative effects of sugar and particularly of alcohol on the health of the indigenous population and the economic realities that encouraged indigenous communities to produce sugar, which often was used to make alcohol. Archaeological data from Aguacatepeque, Guatemala, provide additional information not readily available in the documentary record. An afterword by Carla Martin effectively summarizes the common themes and strengths of the volume.

These two volumes that cover some of the same plants have very different goals and perspectives, and they use very different methods. Yet readers interested in human use of these substances will find their approaches to be complementary and may be inspired to expand the scope of their own research.

*Ten Thousand Years of Inequality: The Archaeology of Wealth Differences.* TIMOTHY A. KOHLER and MICHAEL E. SMITH, editors. 2018. *Amerind Studies* in Anthropology. University of Arizona Press, Tucson. ix + 337 pp. \$70.00 (cloth), ISBN 978-0-8165-3774-7.

*Reviewed by* Arlen F. Chase, University of Nevada, Las Vegas

Archaeologists often have difficulty demonstrating the relevance of their research to present-day problems and concerns. This volume, edited by Timothy Kohler and Michael Smith, is a welcome addition to the