

searches: Robert Binns, Maurice Burton, Steuart Campbell; see my book *The Enigma of Loch Ness: Making Sense of a Mystery*, Urbana: University of Illinois Press, 1986. A more recent such convert is Adrian Shine, who marked the millennium by re-titling the "Official Loch Ness Monster Exhibition" the "Loch Ness 2000 Exhibition".

² The skeleton of "Kennewick Man", found in 1996, has been dated to 9,300 B.P. and certain of its features differ markedly from those of present-day native Americans. Nevertheless, local tribes have claimed kinship and demanded a return of the bones for re-burial. Anthropologists are appalled at the possible loss to research of this unique find. The matter remains tied up in court fights.

Plants of the Gods: Their Sacred, Healing, and Hallucinogenic Powers by Richard Evans Schultes, Albert Hofmann, and Christian Rätsch. Rochester, VT: Healing Arts Press, 1998. 208 pp. \$29.95 (paperback). ISBN 0892819790.

One way to study consciousness is to modify it using reliable methods that induce in most people a similar state of altered consciousness. The constituent elements of conscious experience then may be more sharply outlined, helping elucidate the biological and psychological mechanisms by which these permutations occur. These altered states of consciousness may provide unique tools for understanding and treating psychopathological states and opportunities for healing or growth.

Psychedelic or hallucinogenic drugs are one such reasonably reliable method of altering consciousness, used by humans and other species for millennia. These compounds also were a primary impetus for the development of the contemporary field of psychopharmacology, and its clinical offspring, biological psychiatry. This fact is evidenced by the intensive study of hallucinogens in the early years of these fields in the late 1940s to early 1970s. It was in psychoactive plants and fungi that scientists found all the most important mind-altering chemicals that began this revolution: mescaline in the *peyote* cactus used by Native Americans; psilocybin in South American magic mushrooms; and DMT (dimethyltryptamine) in psychedelic snuffs and the visionary Amazonian brew, *ayahuasca*.

Before his recent death, Harvard-based Richard Evans Schultes was his generation's most illustrious ethnobotanist, spending decades tramping through the Amazon, identifying hundreds of psychoactive plants. Albert Hofmann, now nearly 100 years old, synthesized LSD while working at Sandoz Laboratories, and remains an articulate spokesman for understanding and applying the effects of these compounds. Christian Rätsch is one of today's most published ethnobotanists, whose work mostly has appeared in the German literature.

There are many levels at which one can relish this wonderful book—a book that inspired me in my younger days, and continues to do so in this new edition. Students of chemistry and psychopharmacology can learn much about the powerful mind-altering constituents contained in dozens of plants and fungi, chemicals that might improve our health and understanding of important brain-consciousness relationships. Garden enthusiasts will admire the beauty of the photographs and illustrations, and may seek out these plants to grow for themselves, doing their part to preserve a unique heritage. Anthropologists and students of religion will appreciate the information about indigenous and contemporary use of these plants in providing entry to seemingly spiritual realms, with profound effects on healing, cultural homeostasis, and art.

Plants of the Gods first appeared in 1979, authored by Schultes and Hofmann. Rätsch joined this team for a markedly expanded and updated 1998 edition. This revision adds even more depth, breadth, and variety to what was already a classic treatment of the field.

The book is divided into several sections. An introductory segment provides an overview of naturally-occurring psychedelics within the broader context of the plant and fungal systems, relevant pharmacognosy, and geographical range of their distribution and use. Next follows a lexicon of known or suspected hallucinogenic plants and fungi, with pithy summaries of classification, range, indigenous and contemporary use, effects, and chemistry. Excellent photographs and illustrations accompany these entries. Immediately following is a 14-page table, laying out all this information in an easily accessible format.

The subsequent and largest section contains individual chapters about the most important psychoactive species, so deemed because of their impact on the fields of religion, medicine, anthropology, pharmacology, or some combination thereof. These include, for example, *Datura* species, such as jimsonweed; *Amanita muscaria*, the plump, white-spotted, bright red mushroom—the archetypal toadstool—linked to the legendary *soma* of the ancient Indian Vedic literature; the ergot mold on rye that contains psychoactive precursors of LSD; mescaline-containing *peyote* cactus; *iboga*, an African shrub containing ibogaine, a psychedelic with putative anti-addictive properties; DMT-containing *ayahuasca*; and *psilocybin*-containing mushrooms.

The book closes with a summary of the history and contemporary state of medical and clinical research use of the compounds found in these organisms. While this section touches upon many of the relevant issues, it nevertheless is perhaps the weakest link in the book, being too brief relative to the depth with which other issues are so thoroughly addressed. Thus, one is best referred to more thorough treatments of these topics, such as Grob's recent book, *Hallucinogens. A Reader* (Tarcher/Putnam; New York; 2002), or even Hoffer's and Osmond's classic *The Hallucinogens* (Academic Press; New York; 1967).

This book will be of great interest and use to many disciplines: botany, pharmacology/pharmacognosy, anthropology, religious studies, and psychiatry.

It contains an incredible amount of rigorous and fascinating information in a highly accessible, beautiful, and compelling format.

RICK J. STRASSMAN

Clinical Associate Professor of Psychiatry
University of New Mexico School of Medicine
Taos, New Mexico
www.rickstrassman.com

Saints and Madmen: Psychiatry Opens Its Doors to Religion by Russell Shorto. New York: Henry Holt, 1999. 265 pp. \$25.00 (cloth). ISBN 0-8050-5902-4.

Feet of Clay: A Study of Gurus by Anthony Storr. London: HarperCollins, 1997. 271 pp. £6.99 (paper). ISBN 0-00-638423-4. [There appear to be several editions with different subtitles. The information given here is for the British edition.]

There is a popular maxim that a psychotic is a failed mystic. The authors of both of these books play with the interface between psychopathology and religious experience but from opposite directions. Russell Shorto recounts the recent readmission of religious concerns into the treatment of psychopathology, whereas Anthony Storr points out the dysfunctional aspects in the behavior of those who have set themselves up as charismatic religious leaders. The convergence is not symmetrical however, in that, conceptually, Shorto picks up where Storr leaves off, so let me first discuss Storr's book and then Shorto's.

In his book *Feet of Clay*, Storr gives short descriptions of the lives of a number of charismatic figures: Jim Jones, David Koresh, Georgei Ivanovitch Gurdjieff, Bhagwan Shree Rajneesh, Rudolf Steiner, Carl Gustav Jung, Sigmund Freud, Ignatius of Loyola, Jesus, and Paul Brunton. In addition to presenting biographical material, Storr discusses each person's psychological characteristics and the apparent presence of any mental disturbances. Whereas some of these people, such as Jim Jones and David Koresh, were demagogues who engaged in reprehensible behavior, others, such as Rudolf Steiner, although holding idiosyncratic views, ended up doing much good. Most fall somewhere in between. Interspersed within the descriptions of gurus' lives and in chapters toward the end of the book are Storr's ruminations about the gurus' psyches and what all of this tells us about ourselves.

What does Storr conclude? Storr says that gurus have often been socially isolated as children, they have often suffered from some form of mental distress that preceded their proselytization, they have sometimes thought that they were God, and they have all been narcissistic. He makes the point that the line between sanity and insanity is blurred, and that the presence of bizarre beliefs should not be used as a sole criterion for diagnosing insanity.