KEVIN FEENEY (ed) 2020. Fly Agaric. A Compendium of History, Pharmacology, Mythology, and Exploration.

Ellensburg, WA: Fly Agaric Press, 508 pp.

After his earlier contributions to the research of Amanita muscaria (FEENEY 2010, 2013) and other entheogens (e.g., FEENEY 2014), Kevin Feeney has delivered as editor a voluminous vademecum for each person interested in the ethnomycology of this fabulous fungus. Here a mushroom is presented that has deep roots in traditional Siberian ethnomedicine and inebriation (BATIANOVA & BRONSHTEIN 2016; GORDEEVA 2017; VERESHCHA-KA 2014), but, contrariwise, is elsewhere solely deemed good to look at when a wide berth is given and generally feared on account of its (widelypresumed) inherent toxicity, if not lethality, upon consumption. While the research of the fly agaric was in the ascendant in the 1960s (WASER 1967; WASSON 1967) and 1970s (e.g., OTT 1976) (along with the then wholesale interest in entheogens)briefly resurfacing in the 1990s (vide, e.g., contributions in RÄTSCH 1995)-, few fresh endeavours have since complemented to our still inchoate and, indeed, biased attitude towards it (KALLWEIT 2021). It is therefore high time for a volume that compiles what is known about A. muscaria and defines the extant research lacunae. Fortunately, Feeney and the contributors have put forth just that.

The volume is organised into five parts (Mushroom Hunting & Identification; Religion, Culture, & Folklore; Archaeological Evidence; Diet & Cuisine; Pharmacology & Physiological Effects) and, due to the interdisciplinary nature of this field of research, a great many authors contributed thereto; hence it will be concisely described chapterwise hereinafter. To confer the grass roots of the topic, the volume begins with three chapters on identification and gathering, wherein a particularly handy "Amanita Basics" mycology-starter-kit chapter is provided followed by an illustrated and detailed guide to the sundry subspecies of psychoactive (North American) *Amanitas* and how to tell them apart.

Thereafter, in the second part, the "murkier territory of religion, culture, history, and folklore" (xiii) is tackled, starting with the contested but in scholarly depth hitherto unsurpassed identification of the ancient Vedic entheogen Soma as *A*.

muscaria by R. GORDON WASSON. This contested claim Feeney & T. Austin reassess biochemically with Lactobacillus bacteria (usually present in milk) used as enhancer of fly agarics' decarboxylation, also readily brought about through a range of other techniques reviewed by the authors. In accord with their caveat, however, further such research is warranted. In chapter 5, Millman picks up the oft-rehearsed presumption of Santa Claus having originally been a (fly agaric using) shaman. Whichever thoughts one harbours about it, the novel ethnomycological titbits he provides from Lapland's Sami are intriguing. This is followed by a chapter composed of originally two hard-to-get yet pivotal articles of fly agaric use among the Korvaks as of mid-1990s by Salzman and colleagues. Other reissued articles are included in chapters 8, 9, and 11, covering, respectively, entheogenic mushroom use among the old Scandinavians (by S. Leto); a translation of Ödman's berserker-used-fly-agarics hypothesis (which reverberates until today, vide BLUMENBERG & HOROWITZ 2020); and, an equally putative utilization of A. muscaria as might be exegeted in Celtic legends (by E. R. Laurie & T. White). In a similar vein, chapters 10 ("the berserkers" by M.A. Hoffman & C.A.P. Ruck), 12 ("fly agaric motifs in the Cú Chulaind Myth Cycle" by T. J. Riedlinger), and 13 ("bride of brightness & mother of all wisdom" by P. McCoy) complement the "murky" myco-mythological manifestations as surmised in this volume. Rather novel and indeed worthwhile appears the connection between the Russian Baba Yaga and A. muscaria F. M. Dugan traces in chapter 7. Appearing somewhat out of place to me, chapter 14 features an interview between Feeney and M. Niemoller, the founder and proprietor of the now defunct company "poisonous non-consumables" that, among others, also sold dried fly agarics for explicitly non-consumption purposes such as laboratory analyses. Finally, part two terminates with the fly agaric's manifestation as Glückspilz ("The Lucky Mushroom" by Feeney) which looms large in a well-known German fairy tale reproduced in translation (by M. Meissner, K. Schicktanz & S. Grecki); a trait of A. muscaria that lingers on in

the minds of the contemporary German populace (KALLWEIT 2021).

In part three of the volume, archaeological ethnomycology is pursued with almost equal share to species of *Amanita* and *Psilocybe*. Initially, G. Samorini draws attention to rock art sporting mushroom images in the Sahara, northern Asia and south India. C. de Borhegyi, then, focuses on Mesoamerican mushroom artefacts and related phenomena that can purportedly be ascribed to the aforementioned species.

The fourth part, about diet and cuisine, is ushered in by an excerpt from an article by F.V. Coville (1898) which tells of fly agarics being thoroughly prepared and thereafter consumed by a woman in Washington, D.C. An ensuing article of fly agarics used as food in one particular family (by D. Curry) chimes in neatly with the excerpt by Coville and the more detailed chapter 21 about the very same utility. Therein, Feeney puts forth a nutritional vignette of *A. muscaria* and outlines his experiences with diverse recipes in which this mushroom occupies centre stage. I find especially his nutritional comparison with more common searched-for mushrooms intriguing.

The final and fifth part of the volume opens with a meticulous state-of-the-art review (by E. Maciejczyk) of the fly agaric's chemical makeup, the research of which, however, remains largely incomplete in spite of the knowledge that this very mushroom "has been used as a 'miracle cure' for many diseases" and has thus far proved a genuine cornucopia of pharmacological lead compounds. Also one steady mirage, the role of muscarine in the fly agaric's folklore and toxicology, while for too long assumed to be solely responsible for its effects, is duly revisited in an updated article of 2010 reproduced in chapter 23 (by Feeney & T. Stijve) by opting for a more differentiated discourse on the inherent compounds. Differentiation is indeed indicated, since A. muscaria has long been known as homeopathic remedy the beginnings of which are discernible in H.P. Holmes' (1894) "Agaricus Muscarius" chapter, whereas Feeney & B. Mann's contribution beforehand discuss this utility in a more contemporary light. This is further enlarged upon in chapters 26 and 27, wherein Feeney describes matter-of-factly in which fields of application A. muscaria has traditionally been used for as a remedy and how to make some such

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medicinal preparations. In non-therapeutic doses, however, *A. muscaria* may evoke psychoactive effects as elucidated in chapter 28 and since these are notoriously elusive the final chapter queries whether there might be a formula with which to pinpoint a somewhat predictable outcome.

In describing the overall impression one gets of the volume, many benefits and few shortcomings can be discerned. Starting with the latter, the mythological part is fairly large and speculative (pace the authors' efforts and expertise), albeit discreetness is being voiced. However, these fastidious remarks are far outweighed by the advantages the volume provides, among which one, at the very least, can find (a) a highly instructive introduction part, (b) new vistas on the Soma enigma, (c) many reissued articles that are usually scattered or hardly obtainable, (d) an up-to-date review of the mushroom's biochemistry, and (e) the compiled recipes for nutritional and medicinal ends, as well as the manifold bioassays. Some contributions appear particularly outstanding to me. Firstly, the detailed and richly illustrated guide to the various psychoactive Amanitas. Secondly, the culinary aspects which might instigate anew the debate about the fly agaric's toxicity. Finally, and related to the latter, the updated viewpoints about the medicinal and inebriatory utility which are direly needed, due to their outdated nature in the conventional discourse. It must be stressed that at no time does any contributor encourage the consumption of A. muscaria.

All in all, Feeney and the contributors are to be applauded for having furnished a long overdue, state-of-the-art book about the fly agaric that hopefully kindles "future investigations, research, and explorations of this remarkable fungus" (xix).

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