

Book review

NARRENSCHWÄMME. Psychotrope Pilze in Europa.
Herausforderung an Forschung und Wertesystem. By JOCHEN GARTZ.
Editions Heuwinkel, Schweiz, 1993. 136 pages, 78 illustrations, Sfr. 87.

Jochen Gartz, born in 1953, is a chemist and mycologist in Leipzig (Germany) and has now published a valuable multi-disciplinary book psilocybin-containing mushrooms.

The title "Narrenschwämme" (fools mushrooms) is an old German name for psychoactive mushrooms and testifying to an ancient familiarity with this fascinating mushrooms in the German speaking world and elsewhere in Europe. About 20 years ago he begun his study about indolic derivatives in higher fungi (Agaricales).

In his book he included the results of many field trips, isolation of various mycelia of psilocybian species and cultivation of many mushrooms as well as innumerable analysis with the most modern analytical techniques. In "Narrenschwämme" you can also find many well written self experiments of some scientists with the mushrooms. So the reader will get a whole view into the strange world of the "magic mushrooms". A main wish of the author is that psychotropic alkaloids of the mushrooms will find their way into psychiatry and psychotherapy again.

The text is well legible and the pictures are in black and white or coloured. Most mushroom pictures are good colour plates (tipped-in) and the cultivated fruit bodies have a green, red or black background. The reproduction of the slides with red background causes a somewhat unnatural appearance.

There are ten chapter in the book. In the first chapter the author explains why he wrote his book. Then he surveying his territory briefly including some old historical signs of the knowledge of such mushrooms even in Europe in a second chapter.

After this Gartz commences with a chapter on all important psychotropic mushrooms of Europe with *Psilocybe semilanceata*, *Psilocybe cyanescens*, *Panaeolus subbalteatus*, *Inocybe aeruginascens*, *Gymnopilus purpuratus*, *Conocybe cyanopus* and *Pluteus salicinus*. There are good colour plates of all except *C. cyanopus* which is very rare but he includes a photo of cultivated sclerotium of this species. For the first time in literature there is a comparison of these species in the fields of occurrence, distribution, substratum, frequency and fruiting time as well as in their content of alkaloids psilocybin, psilocin, baecocystin and other metabolites. In a short chapter the author mentions some dangerous possibilities of confusion of psilocybian species with deadly mushrooms of the genera *Galerina* and *Inocybe*. Some fatalities of such mechanism occurred in the USA. Another short chapter describes an important feature of the psilocybian mushrooms: the blueing of mycelia and fruit bodies in many species.

In the sixth chapter there is a extensive description of some principal cultivation parameters of saprophytic species in general following by the results of the cultivation of the "magic mushrooms" in Mexico. New and important results are the description of the cultivation of European species like *Psilocybe semilanceata* and *Gymnopilus purpuratus* and the finding that complete reproduction barriers have been found between strains of collections of *Psilocybe bohemica* and *Psilocybe cyanescens* (USA) which did not form dikaryons (In contrast to the comparison of Kriegelsteiner who used only microscopic features). It seems clearly that the collections from Europe and America are autonomous species with a similar habitat as wood chips and humus sharing but a different genetic heritage.

In the large seventh chapter (pages 83-114) Gartz writes about the occurrence of psychotropic mushrooms in North, Middle and South America, Asia, Australia, Africa, Hawaii, Europe and some oceanic islands. It is admirable how many facts he has found in relation to old and recent intoxications from all over the world.

Both following chapters are specially important for people who work in medicine and particularly in psychiatry. The alkaloids of these mushrooms are only minor toxic but have a strong psychoactivity even in amounts of a few milligrams.

In the last chapter Gartz bemoans the legal restrictions which have closed the door for using this promising aid to psychotherapy and expresses the hope for reclassify these drugs as experimental medicines like in the early sixties. We also need more knowledge of distribution, taxonomy and secondary metabolites of hallucinogenic species in Europe and even in the world.

There are 224 references in this book from the field of medicine up to pure mycological literature.

Gartz thinks that only by reopening the doors to thorough research of these substances can we guarantee that the mushrooms what the Germans call the "fools mushrooms" don't end up making fools of us all.

I share his confidence.

Marta Semerdžieva