



Hunt Institute for Botanical Documentation
5th Floor, Hunt Library
Carnegie Mellon University
4909 Frew Street
Pittsburgh, PA 15213-3890
Telephone: 412-268-2434
Email: huntinst@andrew.cmu.edu
Web site: www.huntbotanical.org

The Hunt Institute is committed to making its collections accessible for research. We are pleased to offer this digitized item.

Usage guidelines

We have provided this low-resolution, digitized version for research purposes. To inquire about publishing any images from this item, please contact the Institute.

Statement on harmful and offensive content

The Hunt Institute Archives contains hundreds of thousands of pages of historical content, writing and images, created by thousands of individuals connected to the botanical sciences. Due to the wide range of time and social context in which these materials were created, some of the collections contain material that reflect outdated, biased, offensive and possibly violent views, opinions and actions. The Hunt Institute for Botanical Documentation does not endorse the views expressed in these materials, which are inconsistent with our dedication to creating an inclusive, accessible and anti-discriminatory research environment. Archival records are historical documents, and the Hunt Institute keeps such records unaltered to maintain their integrity and to foster accountability for the actions and views of the collections' creators.

Many of the historical collections in the Hunt Institute Archives contain personal correspondence, notes, recollections and opinions, which may contain language, ideas or stereotypes that are offensive or harmful to others. These collections are maintained as records of the individuals involved and do not reflect the views or values of the Hunt Institute for Botanical Documentation or those of Carnegie Mellon University.

About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

La vendedora de sueños

Por Lidia CASTELLANOS

Sa-Bí es el nombre mazateco de María Sabina, la curandera que ha llegado a ser famosa gracias a los estudios realizados por los micólogos Gordon Wasson y Roger Heim acerca de los hongos alucinógenos de Huautla de Jiménez.

Las primeras fotografías de María Sabina fueron publicadas en una edición de Life (1953) por el propio Wasson. A partir de esa fecha su imagen ha recorrido el mundo entero en revistas científicas, proyecciones, cubiertas de discos y en dos magníficos libros publicados en inglés y francés, y cuyos ejemplares se venden a precios prohibitivos en el mercado.

El nombre de María Sabina va unido a los hongos alucinógenos, porque ella ha colaborado en la medida de sus posibilidades a uno de los descubrimientos de mayor importancia en el campo de la medicina. No fue cosa fácil convencerla para que trabajara, en una forma que diríamos pública, porque estas ceremonias son absolutamente privadas y se efectúan en secreto debido al carácter místico que encierran.

La costumbre de tomar los hongos alucinógenos, entre los mexicanos, es antiquísima, data de tiempos prehispánicos, pero por razones desconocidas parece desaparecer en tiempo de la Colonia.

⁽¹⁹³⁶⁾ Al ingeniero y antropólogo Roberto J. Waitlaner, se debe el redescubrimiento de los hongos alucinógenos. Hace más de veinte años, cuando él vivía en esta villa serrana, se enteró de casualidad, por boca de un comerciante huastleco de que los brujos utilizaban los hongos para adivinar y curar las enfermedades. Después de hacer algunas investigaciones por su cuenta, con gran sorpresa suya comprobó que todavía se practicaba esta costumbre antiquísima. Comunicó su hallazgo al botánico mexicano Blas Pablo Reko, al cual le envió algunos ejemplares. Se iniciaron algunos estudios y se hicieron algunas publicaciones, pero debido al fallecimiento del ilustre botánico fueron suspendidas las investigaciones.

Gordon Wasson, en compañía de su esposa, la doctora Valentina Petrovna se enteraron de la existencia de los hongos alucinógenos y llegaron por primera vez a Huautla en el año de 1953, acompañados del propio Waitlaner.

Hubo la feliz coincidencia de que Waitlaner conociera con anterioridad a la profesora Herlinda Martínez y fueron a verla, presintiendo que ella sería una activa colaboradora. Le explicaron el objeto de su viaje y le pidieron que los introdujera con la gente de su pueblo, especialmente con los curanderos. Fue así como la señorita Herlinda, fina y bondadosa mujer, empezó a realizar una labor de convencimiento entre sus propios paisanos. Un día se dirigió al cerro Fortín; en lo más elevado vivía María Sabina. Después de explicarle a su manera el objeto de su visita y vencer la desconfianza propia de las personas que se dedican a estos trabajos, pudo convencerla para que actuara en una ceremonia ritual de los hongos alucinógenos. La primera barrera se había franqueado, y una noche de esos mes de agosto, Gordon Wasson y Valentina Petrovna pudieron asistir a uno de esos actos mágicos y comer ellos mismos los hongos.

A partir de esta fecha de 1953, año con año llegaba Wasson a Huautla acompañado de otras personas y llevando en su equipaje modernos aparatos de grabación, cámaras fotográficas y el dinero suficiente para comprar todos los hongos necesarios y poder enviar los mejores ejemplares a los laboratorios de París, a donde el ilustre micólogo Roger Heim se dedicaba con verdadero interés científico al estudio de estos extraños y misteriosos seres. Buscaban el alcaloide que producía las alucinaciones.

Los tres últimos años, la ciudad de Huautla se vio honrada con la visita del ilustre biólogo francés, que recorrió en compañía de Wasson gran parte de la sierra mazateca, la región chatina y la mije en busca de los hongos y de otras plantas, también alucinógenas, como la semilla de la Virgen y la hierba de la Pastora. Como es sabido al fin se logró aislar el principio activo del hongo alucinógeno. Al fin se tenía un nuevo alcaloide, mejor que la mezcalina, que ayudara a aliviar uno de los males más terribles de la humanidad: la demencia.

María Sabina siempre estuvo dispuesta a colaborar con Wasson cuantas veces se le pidió que lo hiciera. Quizá sin la colaboración de esta humilde mujer, a Gordon Wasson se le hubiera hecho casi imposible penetrar en los secretos de la magia mazateca. Con ayuda de María Sabina y Herlinda Martínez, llevó a feliz término sus investigaciones y pudo traer sobre sí la fama y el reconocimiento general.



María Sabina tiene actualmente 59 años, que no representa su trato es afable; la voz suave y musical; la mirada penetra- te y viva. Nunca da una respuesta sin haber entendido muy bien la pregunta. Se queda unos segundos pensativa y al fin huipil y falda de enredo. Sus pies descalzos están acostumbrados a las asperezas de todos los caminos. A veces, cuando el frío es intenso, mira sus pies descalzos están acostumbrados algún día poder tener unos zapatos. Su porte es digno y esperanto, al moverse y caminar lo hace como un felino. Habla únicamente su idioma mazateco: en él conversa, reza, e invoca a los espíritus de los cerros y de los santos, canta en las ceremonias rituales, y adivina el futuro en la llama del copal y de las velas. En este mismo idioma reprende a sus nietos y los arrulla en su regazo.

Pedimos a María Sabina que nos cuente cómo empezó a tomar los hongos. Se nos queda mirando unos momentos y en voz muy baja nos dice:

"Tenía seis años cuando un tío mío se enfermó. Buscaron a un curandero para que lo recetara. Aunque estaba muy chica me di cuenta de que mi tío comió los hongos. Después vi que se puso muy contento, hablaba solo y se reía. Por último se quedó dormido y a los pocos días se alivió. Esto se me quedó muy grabado. Mi madre acostumbraba dejarnos solas a mi hermana más pequeña y a mí, porque se iba a trabajar. Éramos muy pobres y tenía que darnos de comer. Nos quedábamos con mi tía, pero mi tía era muy mala, no nos daba de almorzar temprano y nos escondía el café y las tortillas. A veces nos íbamos con el estomago vacío al campo con los animales. Un día estábamos en la milpa cuidando los pollos cuando encontramos los hongos y los quisimos probar, recordando al tío que se había puesto contento. Los comimos, de pronto nos sentimos mareadas y empezamos a llorar, pero el malestar pasó y nos pusimos muy contentas. Desde entonces, cuando sentíamos hambre, comíamos los hongos para calmarla y para pedirle a Dios que nos quitara de sufrir. Así nos acostumbramos a ellos."

Cambiando el tema le preguntamos a María Sabina si cree en el amor y si ha sido feliz en sus matrimonios.

"Sí creo —nos contesta seriamente—. Me casé por primera vez a la edad de catorce años. De acuerdo con nuestras costumbres conocí a mi esposo hasta el día del matrimonio. Mis parientes arreglaron la boda sin consultarme. Sin embargo quise mucho a mi esposo."

"¿Y seguiste comiendo los hongos después de casada?"

"No, porque las creencias indican que la persona que los toma, no debe tener tratos con hombres."

"¿A qué se dedicaba tu esposo?"

"Él sabía leer y escribir —nos dice con orgullo— y se dedicaba a comerciar con hilaza roja y negra, la que sirve para bordar nuestros huipiles. Después de seis años de matrimonio, se murió y me dejó tres hijos. Quedé muy enferma. Llamé a un brujo para que me curara, pero no me hizo nada. Decidí, entonces, volver a comer los hongos. Esta vez me tomé treinta pares. Me puse muy mala porque eran muchos, pero me alivié. Y los mismos hongos me dijeron que tenía que adorar a Dios de esta manera. También pude ver la enfermedad que padecía mi hermana y la pude curar."

"¿Y desde entonces te dedicaste a curar con los hongos?"

"No, porque al poco tiempo me volví a casar. Con mi segundo esposo viví trece años y tuve seis hijos. También lo quise mucho, pero él tuvo otra mujer y esto fue causa de disgustos entre nosotros. Los hijos de la otra señora, que era casada, tuvieron un disgusto con él y lo hirieron; vino a morir a mi lado. Quedé sola nuevamente y no me he vuelto a casar. Desde entonces me dedico a curar con los hongos."

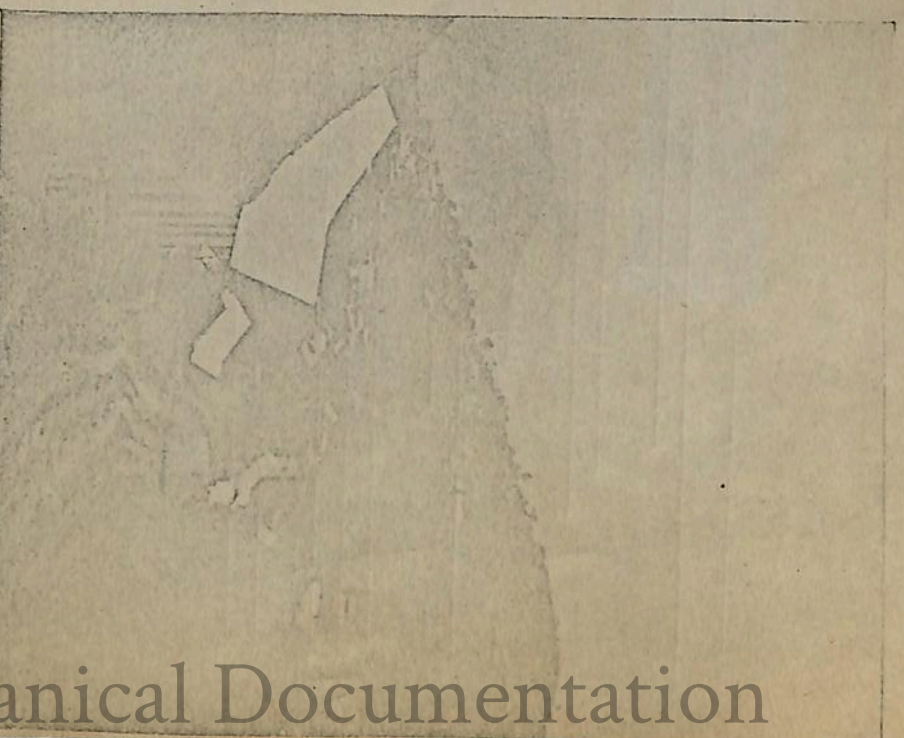
Cuando le preguntamos que si lo hace por necesidad, nos contesta:

"A gente se ha dado cuenta de que puedo curar y me busca. Yo no puedo negarme."

"Has sido feliz en tu vida, María Sabina?"

"No, siempre he sufrido mucho. Mi primer esposo murió de un accidente dejándome pobre y enferma. Al segundo lo mataron, y a mi hijo Aurelio, el mayor, con el que vivía y me ayudaba, también lo mataron en una cantina."

Actualmente María Sabina vive con sus nietos, con los que comparte frugal alimento. No es raro verla en las casas a donde va a trabajar acompañada de alguno de ellos. Ella dice que la



"Los secretos de la magia mazateca"

cuidan de las malas influencias. En la época de lluvias, cuando hay hongos, trabaja dos o tres noches a la semana. También trabaja en el campo y hace todos los quehaceres de la casa. La ilusión más grande de su vida es tener una tienda en donde pueda vender jabón, cigarrillos, refrescos y algunas otras cosas, porque ya está cansada de trabajar como lo ha hecho hasta ahora.

Tenemos curiosidad por saber qué piensa acerca de los estudios que se han hecho sobre los hongos. Ella está acostumbrada a las cámaras de cine, al flash, a los aparatos de grabación, que al principio veía con temor y después con curiosidad. Recordamos el día que por primera vez oyó su voz grabada en una cinta. Se quedó quieta, muy seria, con los audífonos colocados en los oídos. Conforme se fue dando cuenta de que era ella misma, se fue poniendo contenta y empezó a reírse tapándose la boca con las manos. Los ojos le brillaban por el gusto y la sorpresa, y al fin no aguantó más y estalló gritando en mazateco: "¡Ésa soy yo! ¡Ésa soy yo!"

Le preguntamos qué piensa de todo esto y nos contesta muy seria:

"Mis paisanos me han dicho que los extranjeros que han venido son como los meros demonios, que quizá no conocen a Dios y quieren sacarnos todos los secretos para ponerse en contacto con Él. Pero yo les contesto que eso no puede ser, que a la mejor nosotros somos menos cristianos que ellos y que no vienen para hacer algún atropello a la humanidad; al contrario, creo que es para ayudarla."

Nos sorprende su respuesta al ver cómo ha podido interpretar, a su manera, uno de los acontecimientos más importantes de la medicina. Ya en otras ocasiones la hemos visto salir adelante de las dificultades que ha tenido con otros curanderos, pues éstos la han acusado de revelar los secretos de su pueblo. A pesar de todo ha seguido una sola línea, la que cree justa, porque piensa que colaborando con los hombres de ciencia puede con un deber de humanidad.

Nos despedimos de María Sabina, de su choza de madera y palma. Salimos de su casa y desde lo más alto del Fortín vemos a Huautla envuelta en neblina.

"Dali, María Sabina, Stalangáa." (Buenas tardes. Hasta luego.)

Iniciamos el camino de regreso. Bajamos de prisa porque hace frío en estas grandes alturas.

There's More to a Mushroom Than Meets the Eye

MUSHROOMS, RUSSIA AND HISTORY. By Valentina Pavlovna Wasson and R. Gordon Wasson. Illustrated. 2 vols., 433 pp. New York: Pantheon Books. \$125 the set.

By PAUL BIRD

THIRTY years ago, in the Catskills, R. Gordon Wasson and his Russian-born bride began their study, "Mushrooms, Russia and History," now published in two handsome monumental volumes. Unfortunately the price and a limitation to only 512 copies place the book beyond reach of most other amateur mycologists.

During a woodland walk the bride, Valentina Pavlovna Wasson, pounced upon a group of wild mushrooms. On knees she caressed them, purring Muscovite phrases of endearment. Her Montana-bred husband stood transfixed. Mycophobe gazed in horror as mycophile dilated over her find, even suggesting mycophagy. As you thought, mycology is the study of mushrooms (and fungi in general), mycophobia is the dread and mycophilia the love of them, and mycophagy is the eating of them.

Wasson, now a banker, and his wife, a New York pediatrician, have spent most of their spare moments probing ancient deep-seated reasons why some races—Slavs, for example—love mushrooms, while others notably Anglo-Saxons, traditionally fear them. With a prodigious number of clues from linguistics, religion and folkways, the authors present dozens of theories in mushroom lore, climaxing all of them with the suggestion that a ritual use of mushrooms by ancient man may have helped stir his earliest imaginations and assisted his first glimmerings of the god idea.

WRITING as amateurs in the various scientific disciplines, the Wassons are undaunted by settled conclusions of the pedants and eagerly welcome scholarly disputation. They handle their own erudition with engaging charm.

Their work is an impressive contribution to mycology and ethnology, or, to use their word, ethno-mycology. It brings together in compendious form far more mushroom lore than any previous book, and its information on mushroom names in English and many other languages is invaluable. The book's distinguished design is enhanced by profuse illustrations, many in color. More than a score of these, illustrating the text, are water-colors by the entomologist Jean-Henri Fabre, who was amateur artist and mycologist as well. Fabre fans who recall his prediction in "Life of the Fly" that the water-colors would end cut up as paper hats for some grand-nephew will be delighted to find these reproduced for the first time, courtesy of the French

Formerly editor of *Art Digest* and an amateur naturalist, Mr. Bird has become an emphatic mycophile.

Government. The hand that searched out unerringly with a needle the cervical ganglia of a tiny insect, when turned to sketching mushrooms, did a highly creditable job.

In a preface Mrs. Wasson tells the story of these little known mushroom water-colors. "Today hundreds of these pictures," she writes, "lie on the shelf of his study at Sérignan in the Provence, as fresh in color as the day he painted them, on excellent stock, assem-

bled neatly in the folders where he laid them. He painted all his mushrooms in their natural size, save one that was too big for his paper and that he never succeeded in identifying. During his lifetime he sought a publisher for them, but when he failed to obtain the assurance that the colors would be truly rendered, he chose to leave them on the shelf."

Other reproductions serve to illustrate an excellent survey of "Mushrooms in Art" and in-

clude archaeological works as well as paintings by Bosch, Brueghel and Dutch still-life artists. Particularly sensitive is the Wasson's re-evaluation of the seventeenth-century Dutchman, Otto Marseus van Schrieck, a near-forgotten master, yet "the first artist whom naturalists can call their own."

Ethnologically, the Wassons find the peoples bordering the North Sea, among others, originally mycophobes, while Slavs, Catalans, Japanese and

remote Mexican Indian tribes are among the mycophiles. They discover a long-standing connection in the human mind among mushrooms, toads, fire and thunder, and they explore the erotic and phallic significance of these and related phenomena. From long-forgotten beliefs and rites stem, they believe, both a reverence and a tabu which still trigger our reflexes. Like Frazer's interest in the golden-bough rite, which spun itself out to a twelve-volume classic, the Catskill episode led down a long road, and, we might add, changed Wasson to a mycophile.

The excursion through Russia, history and fungi turns up many a surprising fact. The French have not always fancied mushrooms; they were once mycophobes. One who is not a mycology enthusiast will learn that the store-bought mushroom is "a sickly simulacrum of what a mushroom should be."

HISTORIANS will be intrigued by the Wassons' explanation of Claudius' famous doing-in by poisoned mushrooms, recounted in a chapter, "Mushrooms for Murderers." Their detective work indicates that Agrippina and her agent Locusta poisoned a dish of edible mushrooms with essence of the deadly *Amanita phalloides* and then applied a *coup de grace* with bits of the poison gourd, colocynth. This reveals a more ribald pun in the title "Apococytosis," or "Pumpkinification," by Seneca, who was in on the palace secret. Other literary puzzles they solve with gusto include the fungal derivation of two famous names, that of Molière's *Tartuffe* and the fairy king Oberon.

The work becomes impressively pioneering in the later chapters, written in more recent years, on hallucinatory and inebriating effects of certain mushrooms and the eucharistic eating of them by certain Indian tribes in Middle America. The authors journeyed to perilous interiors to participate in these Indian rites.

The wide scope of the authors' investigations, combined with a literary style, serve to whet the reader's appetite for more mushroom monographs by the Wassons. We would like to see further study of the biblical silence regarding fungi (except leavening yeast). Welcome, too, would be further studies on the chemistry of mushroom alkaloids, their pathogenic and hallucinogenic action as compared to that of other plant poisons and narcotics.

Recently the mushroom has assumed new symbolic meaning: constructively as the ingenious monolithic column devised by Frank Lloyd Wright, destructively as the cloud of the H-bomb. The fungus spore proliferating in a Petri dish symbolizes the whole family of new wonder drugs. Even in its modern iconography the mushroom's dualism persists: benignancy and malignancy, philia and phobia.



Water-color by Jean-Henri Fabre from "Mushrooms, Russia and History."
Coprinus comatus.

How to Catch a Copperhead

SNAKES AND SNAKE HUNTING. By Carl Kauffeld. Illustrated. 266 pp. Garden City, N. Y.: Hanover House. \$3.95

By BESSIE HECHT

THE Sunday visitor to the reptile wing of the Staten Island Zoo may see a beautiful orange and vermilion spotted snake coiled in a hollow log. The label may read simply, "Corn Snake, South Carolina." The museum herpetologist uncoils an alcoholic specimen from the jar in which it reposes behind a label reading "Elaphe guttata, Sandy Hill, South Carolina," followed by the date of collection and the collector. But behind these brief annotations may lie a long history of personal adventure, frustration and finally success experienced by the collector.

Carl Kauffeld, experienced herpetologist and snake hunter, has collected snakes for the Staten Island Zoo where he is Curator of Reptiles and for the American Museum of Natural History where he once worked in the herpetology laboratory. He has not hunted in exotic lands for his animals; all of his ventures have been within the

continental United States. In his book he takes us with him to a number of snaky haunts from Okeechobee (Fla.) to "Huachuca Heaven" (Ariz.) to Dutchess County, N. Y.—prolific colonies of copperheads and rattlesnakes. "The Saga of Sandy Hill" is a condensation of six springtime collections Mr. Kauffeld has made in an especially productive snake stamping ground in a game preserve in South Carolina.

FOR the uninitiated or arm-chair naturalists it should be made clear that hunting snakes involves no firearms or traps. With a snake hook and a few heavy cotton bags ranging from large pillow case size down, one is equipped to bag his prey. The hook may be an angle iron attached by one side to a wooden handle about four feet long. Sometimes a noose attached to a handle is used to noose venomous snakes or a clamp stick made on the same principle as the grocer's clamp may serve the same purpose. Most snakes

are caught by bare hand and then placed in the sack, the top of which is tied with a knot.

Venomous snakes may be pinned down by the neck and carefully picked up behind the head and placed in the bag tail first. While most snake collecting is done by walking through likely places during the day, some kinds are best collected at night by driving slowly along a highway. Some reptiles seek the warmth of the heat-retaining road after the surrounding ground has cooled off. Too often, however, preceding motorists have run over them, sometimes purposefully, and then one collects a DOR (dead on road) for preservation, providing it has not been too badly mutilated.

Because of so much needless killing of all kinds of snakes, Mr. Kauffeld appropriately concludes with A Plea for Conservation. This unusual book is recommended to those who like exciting outdoor adventure stories interlaced with natural history. Mr. Kauffeld succeeds in imparting the persistent enthusiasm that has carried him through years of snake hunting.

Mrs. Hecht is the author of "All About Snakes."

How to Avoid Mycophobia



512
 One of the most curious and surely one of the most expensive works to be published in this country in many years is "Mushrooms, Russia, and History," by Valentina Pavlovna and R. Gordon Wasson. ~~Three hundred~~ fifty copies of this lavishly printed and illustrated two-volume work are being offered to the public by Pantheon Books at \$125 a set. The distinguished British novelist-poet Robert Graves writes about its curious contents below.

By ROBERT GRAVES

VALENTINA PAVLOVNA, now a doctor of medicine practising in New York, came to the States long ago as a white emigrée, and has never lost her inherited passion for eating mushrooms. Her husband, R. Gordon Wasson, a native American who started life as a newspaperman, and is now an active vice president of J. P. Morgan & Co., changed at marriage from violent mycophobia (fear of mushrooms) to tender mycophilia (love of mushrooms); and now preaches his new gospel with all the fervor of a convert. He has naturally pondered the strange phenomenon of *mycophobia*, an ancestral obsession which rules certain clearly defined areas on the world map, but not others. In Europe mycophobia coincides roughly with the Protestant confession, though also embracing Greece with its islands and

large parts of France and Spain. Why? Why?

In 1949, when I first began corresponding with the Wassons, they had not realized how expositively their theme would develop. They were still taking endless trouble to classify and extol edible mushrooms, but at the same time, in all fairness, calling attention to the toxic properties of the comparatively few non-edible varieties. This study included a review of names given to mushrooms in different countries, the sampling of rare varieties (I won a good mark by bringing them down a rare *cépe du pin* from the top of the Pyrenees), and the reading of countless travel books, botanical works, and histories. We corresponded mostly on Greek and Latin references to mushrooms.

Four years ago, the book—to be called "Mushrooms, Russia, and History"—seemed to be completed, with numerous full color plates of mushrooms painted between 1885-1895 by the great Jean-Henri Fabre; their originals were found lying unpublished and neglected on a top shelf in Fabre's home at Sérignan. The Wassons sent me galley proofs to read, and promised me my complimentary copy that autumn. But surprising discoveries delayed publication. A sudden light shone, and all the confusing and often contradictory lore that they had gathered, sifted, and tabulated, made sense at last. It should have

made sense hundreds of years ago, had the traditional scorn which most scholars feel for "disgusting toadstools" not blinded them to the central facts. "Mushrooms, Russia, and History" had, in fact, outgrown its title, and should now rather bear an ambivalent one provided by their discoveries: "The Food of the Gods." To be brief: though a great many "disgusting toadstools" taste divinely both cooked and raw, the prime reason for the wide and ancient ban on mushroom-eating—with the occasional exception of the common white field-mushroom—can only be a religious one. They were a food reserved for gods.

What direct evidence have we for mushrooms as a sacred food in ancient Europe? First, there is the Greek proverb quoted by Suetonius and others: "Mushrooms are the food of the gods." The third-century B.C. philosopher Porphyry seems to be referring to it when he calls mushrooms "theotrepheis"—"feeding the gods." This adjective is elsewhere applied only to ambrosia, a mysterious food denied to mortals, and for the vulgarizing of which Tantalus was condemned in Tartarus to suffer agonies of hunger and thirst. A rigid convention forbids the mention of mushrooms in Homer, Hesiod, or any of the Attic dramatists; and all later Greek writers but Porphyry, mention them only with fear. The indirect evidence for their

THE MUSHROOM HUNTER: What manner of man writes a \$125 book on mushrooms? *Wild* mushrooms.

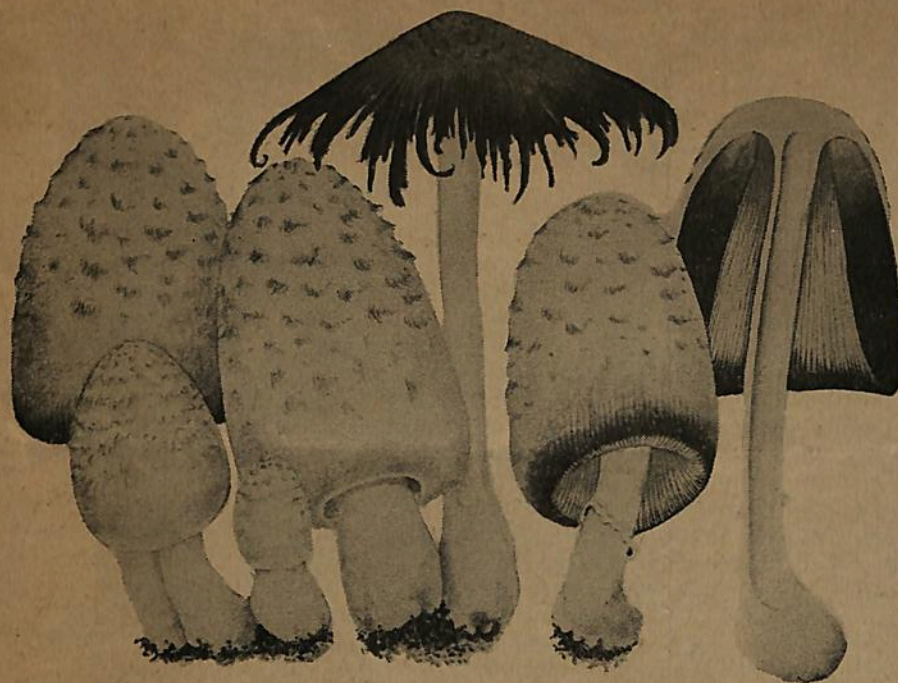
In the author's library, a Guatemalan mushroom statue peering stonily over his shoulder, surrounded by Japanese *Kakemono*, Chinese paintings of mushrooms, and a vast fungal bibliotheca (ranging from Basque to Lapp), R. Gordon Wasson logged for us some of his voyage into mycophilia. It began in 1927, when Wasson was a financial reporter for the *New York Herald Tribune*, and he and his Russian-born bride went for a brief holiday at a friend's lodge in the Catskill mountains. To Wasson's horror, his wife kept running off to pick all manner of unfamiliar fungi, exotic to him but as much a part of Valentina Pavlovna's gastronomic heritage as peanut brittle is of any reasonably red-blooded American boy's. His wife's survival (she ate a mess of what she called *lisichki*) fortified Wasson's courage, and eventually epicurism won out over his Anglo-Saxon prejudice against "toadstools."

The years have taken the Wassons a long way from the Catskills, but never very far from mushrooms. On vacations from their respective careers (Mrs. Wasson is

a physician; Mr. Wasson an investment banker) they have combed the mossy corners of the fungus producing world in quest of mushroomic lore. Together they have ridden their hobby to Friesland, Lapland, Provence, the Basque country (with a Bordeaux professor as interpreter); they have ranged into the remotest corners of Guatemala in search of vestiges of mushroom worshipping cults and have eaten of lotus-like inebriating mushrooms in Mexico. The fruits of their thirty years of labor are pooled in "Mushrooms, Russia, and History"—a fascinating and sumptuous excursion into cultural history.

As a footnote, Kurt Woolf of Pantheon Books informs us that "Mushrooms, Russia, and History" is the most intricately fashioned and costly book his house has yet produced. The book was designed by Hans Mardersteig, and the text printed at the Stamperia Valdonega, Verona. The Fabre paintings were reproduced by Jacomel, Paris; other illustrations by Alinari, Florence. The paper was made by hand by Magnani, Pescia; the binding by Torriani, Milan.

No paperback reprint is planned. —MARTIN LEVIN.



—From "Mushrooms, Russia, and History."

The *Coprinus comatus*—"a food reserved for gods."

sacredness rests precisely on this fear—the foolishness of which, except as a religious taboo, is proved by the extremely high prices paid for mushrooms in mycophilic regions, and by the rarity of deaths there from mushroom poisoning. Most interesting are the evil names given to highly colored or eccentrically shaped varieties. "How poisonous they look!" cry the mycophobes—as though tomatoes, peppers, oranges, red currants, and aubergines did not look even more poisonous! Tasty and nutritious mushrooms are named for demons, hobgoblins, and succubae, for various loathsome reptiles, insects, and animals, for unmentionable human organs and their disgusting by-products—so that the Wassons' index of mushroom nomenclature reads in part like a catalogue of pornography. The second syllable of "toadstool," by the way, refers to excrement; and even "penicillin," that life-saving, Nobel Prize-winning fungoid drug, has been formed from a word tabooed in ordinary speech.

Sacred foods are usually protected by what the Pharisees technically called "a hedge." Not only is the food itself holy, but one must avoid even second-hand contact with it—as in Catholic churches only a priest dares handle pyx or chalice. Thus swineherds were untouchables in Pharaonic Egypt, where pork was eaten sacrificially once a year at mid-winter by the priests alone, but tabooed at all other seasons. The Israelites seem to have learned the pig-taboo in Egypt; and the orthodox Jew will not touch even Kosher beef if it has been in the

same refrigerator with bacon. It therefore seems probable that the ban imposed on all mushrooms in mycophobic areas was designed to keep unauthorized persons, especially children, from eating sacred mushrooms by mistake for ordinary ones.

The sacred mushroom of the Old World is the fly-amanite, a handsome, conventionally-shaped variety with a white-spotted scarlet top. "The deadliest of all toadstools," mycophobes say in a whisper; and some have written detective stories about fatal brews artfully concocted from the fly-amanite—unaware that cooking removes its toxic properties! Nor does this mushroom kill healthy adults, even when eaten raw, though the juice burns the mouth. The awe which it excites depends rather on the resultant delirium; which is startling enough to be regarded as evidence of divine possession.

In the phrase "food of the gods," "gods" did not necessarily mean a disembodied spirit. The Greeks applied the term even in historical times to outstanding live personages: not so much conquerors like Alexander the Great, as religious adepts like Pythagoras and Empedocles. It is unknown what sacred food was eaten at the Great Mysteries, food that apparently caused the initiates to gasp with wonder at the supreme moment of revelation; but the accounts suggest some toxic agent. Could it have been fly-amanite? The very word "mystery" (*mysterion*) may throw light on this problem, because the Mysteries were secret autumn ceremonies, held in the mushroom season; and the compli-

mentary Spring ceremony was called *anthesterion*, from *anthos* ("flower"). Does the *my* syllable in *mysterion* perhaps refer to the fly (*myos*), which gives its name to the fly-amanite in many languages beside English? Or even to *myces* ("mushroom") itself?

The discovery which delayed the publication of the Wassons' book, and added another fully illustrated folio volume to it, was prompted by my casually sending them a clipping from a Canadian pharmaceutical journal which discussed an ancient mushroom cult in Mexico. Sixteenth-century Spanish missionaries had reported, on hearsay, that perverted Mexicans were revering certain mushrooms, which caused a horrible inebriation, and ascribing the resultant visions to "God's flesh" which they had sacramentally eaten. "Devil's flesh, rather," protested the friars.

Following this clue, in 1953 the Wassons went with their sixteen-year-old daughter Mary to a village thirty miles from the nearest high road, in the high mountain of Oaxaca, and there found far more than they had ever hoped to find. Nine different varieties of hallucinatory mushrooms were in secret use among the Indians. The cult, though discontinued as witchcraft by the local Catholic padre, had taken on Catholic disguise, and the toxic mushrooms were now described as "Christ's flesh," his particular gift to Oaxaca. The two elder Wassons witnessed a night-long mushroom-eating ritual, and were allowed to ask questions of the presiding priest, who claimed oracular powers. That his answers proved uncannily correct was by no means the greatest surprise the Wassons had; for on a second visit to Southern Mexico, Gordon Wasson and Allan Richardson, his photographer, dared eat the mushrooms themselves.

Here is a brief excerpt from Gordon Wasson's account of his experiences:

At first we saw geometric patterns, angular not circular, in richest colors, such as might adorn textiles or carpets. Then the patterns grew into architectural structures, with colonnades and architraves, patios of regal splendor, the stone-work all in brilliant colors, gold and onyx and ebony, all most harmoniously and ingeniously contrived, in richest magnificence extending beyond the reach of sight, in vistas measureless to man. For some reason these architectural visions seemed oriental, though at every stage R.G.W. pointed out to himself that they could not be identified with any specific oriental country. They were neither Japanese nor Chinese nor Indian nor Moslem. They

(Continued on page 47)

Sci. Rev. MAY 1957

Mushrooms

(Continued from page 22)

seemed to belong rather to the imaginary architecture described by the visionaries of the Bible. In the esthetics of this discovered world attic simplicity had no place: everything was resplendently rich. . . .

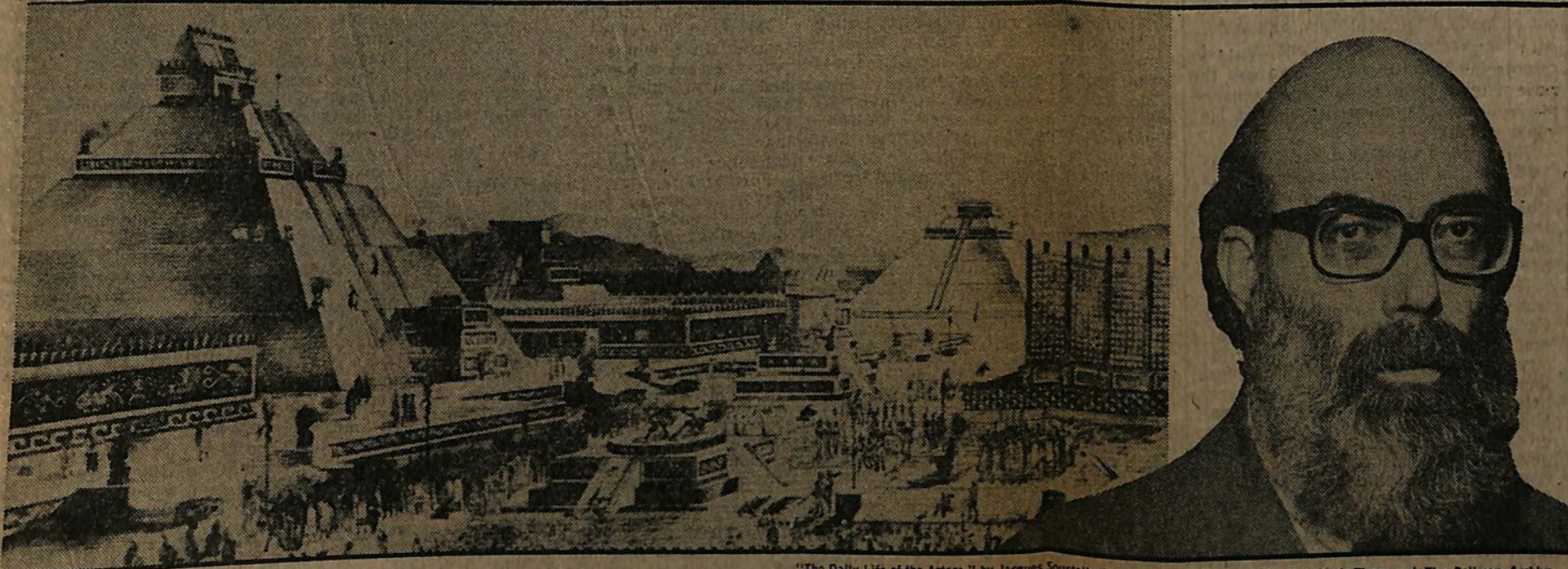
At one point in the faint moonlight the bouquet on the table assumed the dimensions and shape of an imperial conveyance, a triumphal car, drawn by living creatures known only to mythology. With our eyes wide open, the visions came in endless succession, each growing out of the preceding one. We had the sensation that the walls of our humble house had vanished, that our untrammelled souls were floating in the universe, stroked by divine breezes, possessed of a divine mobility that would transport us anywhere on the wings of a thought.

I visited New York this February, when the Wassons celebrated with a memorable party the arrival of the first copy of "Mushrooms, Russia and History," which weighs thirteen pounds. Gordon Wasson, supported by his three fellow-initiates, officiated as mystagogue for those who had contributed in some way or other, to the book, and were therefore privileged to write their names on the fly-leaf. On a table stood a Mexican statue—a god seated under a mushroom—and before it a bowl containing the hallucinatory mushrooms themselves. Unfortunately these were now three months past their prime, and incapable of giving full vision, so I did not taste them as I might otherwise have done.

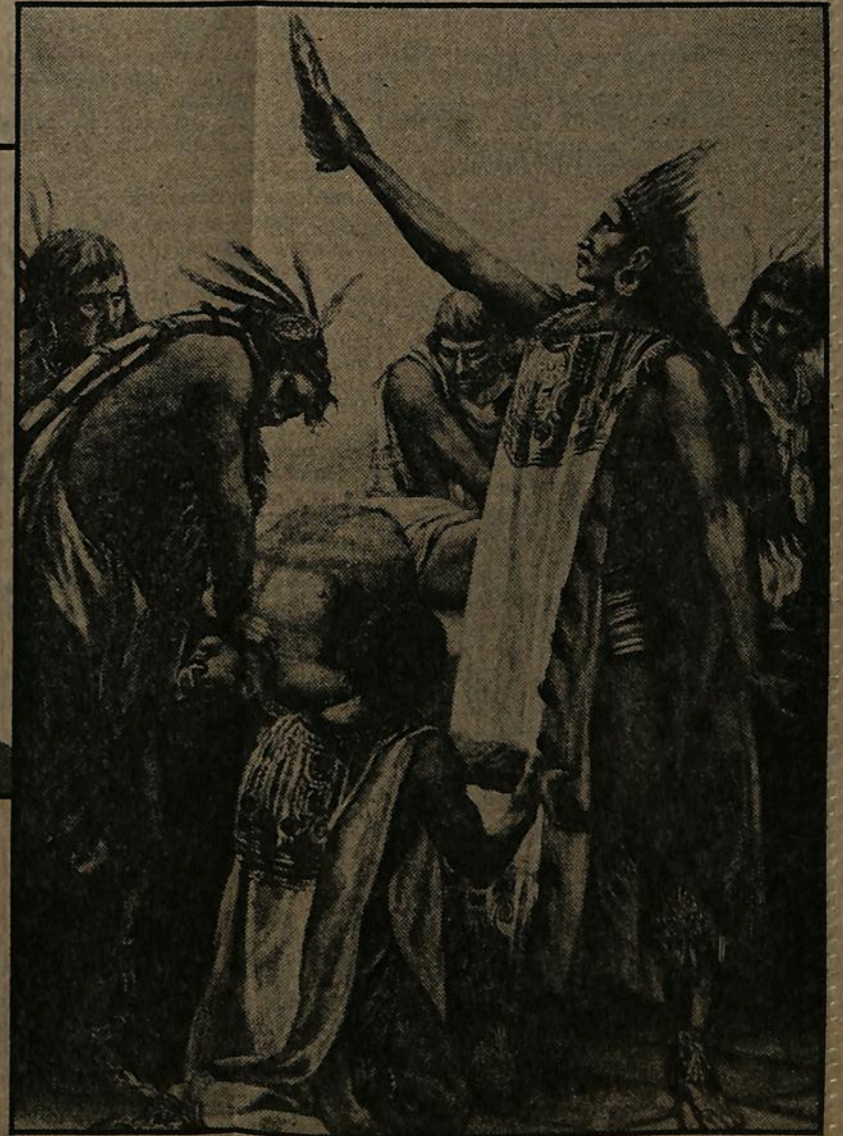
We saw thrown on a screen the colored transparencies of the mushroom oracle at work, and the faces of the devotees in an ecstatic trance—among them Gordon Wasson's own, with wonder-dazzled eyes—while a tape recorder played us the ritual hymn, punctuated by clapping, of the priestess to her ancestral god. ~~Some~~ of these photographs are reproduced in the book, along with an extraordinary picture gallery of mushroom lore; this includes an early painting of a Chinese sage adoring the sacred mushroom, and another of a Mexican eating a pair of them—while the god stands behind him.

I suspect that in another few years a third volume will be added. The Wassons' enquiry has attracted worldwide interest, and astonishing information comes pouring in daily. They are already on the track of another mushroom cult on the Upper Wahgi River in New Guinea.

Aztec Sacrifices Laid to Hunger Not Just Religion



"The Daily Life of the Aztecs," by Jacques Soustelle/The Macmillan Company, The New York Times and The Bettman Archive



By **BOYCE RENSBERGER**

The Aztecs sacrificed human beings atop their sacred pyramids not simply for religious reasons but because they had to eat people to obtain protein needed in their diet, a New York anthropologist has suggested.

Based on evidence he has gathered, Dr. Michael Harner, a professor of anthropology at the New School for Social Research, contends that in the 15th century, just before the Spanish conquerors arrived in Mexico, the Aztecs had the most cannibalistic culture known to modern anthropology.

Although most sources on the Aztecs note that human sacrifice and cannibalism were practiced, they seldom suggest that it was anything more than an occasional religious rite.

Dr. Harner's theory of nutritional need is based on a recent revision in the number of people thought to have been sacrificed by the Aztecs. Dr.

1521, and Bernal Díaz, who accompanied Cortes, Dr. Harner says there is abundant evidence that human sacrifice was a common event in every town and that the limbs of the victims were boiled or roasted and eaten.

Díaz, who is regarded by anthropologists as a highly reliable source, wrote in "The Conquest of New Spain," for example, that in the town of Tlaxcala "we found wooden cages made of lattice-work in which men and women were imprisoned and fed until they were fat enough to be sacrificed and eaten. These prison cages existed throughout the country."

The sacrifices, carried out by priests, took place atop the hundreds of steep-walled pyramids scattered about the Valley of Mexico. According to Díaz, the victims were taken up the pyramids where the priests "laid them down on their backs on some narrow stones, sacrifice and, cutting open their chests, drew out their palpitating hearts which they offered to the idols before them.

Above, Dr. Michael Harner. Right, human sacrifice practiced by the Aztecs. Above left, the royal city of Tenochtitlan, showing pyramids and, at far right, the rack estimated by Spaniards to have held 136,000 skulls.

Then they kicked the bodies down the steps, and the Indian butchers who were waiting below cut off their arms and legs. Then they ate their flesh with a sauce of peppers and tomatoes."

The skulls were placed on a skull rack near each pyramid, alongside the skulls of previous victims. In Tenochtitlan, the royal city of the Aztecs and the precursor of Mexico City, Cortes's associates counted a minimum of 136,000 skulls on the rack.

Díaz's accounts indicate that the Aztecs ate only the limbs of their victims. The torsos were fed to carnivores in zoos.

According to Dr. Harner, the Aztecs never sacrificed their own people. Instead they battled neighboring nations, using tactics that minimized deaths in battle and maximized the number of prisoners.

The traditional explanation for Aztec human sacrifice has been that it was

religious—a way of winning the support of the gods for success in battle. Victories procured even more victims, thus winning still more divine support in the next war.

Dr. Harner contends that a need for food, particularly during periods of famine, came to be a significant factor, especially as the human population in the Valley of Mexico grew to 25 million.

In 1450 for example, Aztec records

indicated that famines were so severe that the royal granaries, which contained the grain surpluses of more than 10 good years, were depleted.

Traditional anthropological accounts indicate that to win more favor from the gods during the famine the Aztecs arranged with their neighbors to stage battles for prisoners who could be sacrificed. The Aztecs' neighbors, sharing similar religious tenets, wanted to sacrifice Aztecs to their gods.

Aztec Experts Deny as Ridiculous Professor's Charge That They Withheld Data on Extent of Cannibalism

By **BOYCE RENSBERGER**

A New York anthropologist's theory that the Aztecs practiced human sacrifice and cannibalism because they needed to supplement a marginal diet has been sharply criticized by a number of authorities on Aztec life.

The critics say there is substantial evidence indicating that the Aztecs had abundant sources of conventional food and that the cannibalism that existed was practiced strictly for religious reasons.

The criticism was directed at the writings of Dr. Michael Harner, a professor of anthropology at the New School for Social Research, who has asserted that most specialists on Aztec culture have "consciously or unconsciously" covered up evidence of what he believes to be the extent of Aztec cannibalism.

Harner View Called 'Ridiculous'

Dr. Harner's theories were published last week as a formal report in the *American Ethnologist*, a journal of the American Anthropological Association. After his theory was described in *The Times*, 17 scholars specializing in Mesoamerican ancient history signed a telegram to *The Times* dissociating themselves from Dr. Harner's views.

"No reputable anthropologist familiar with Aztec culture," the statement said, "would subscribe to his views. We regard his statement that scholars have consciously or unconsciously suppressed the 'facts' about Aztec sacrificial practices as ridiculous."

Dr. Peter T. Furst, a professor of anthropology at the State University of New York at Albany, and a signer of the statement, said in a telephone interview that the Spanish priests who lived among the Aztecs immediately after their conquest by Cortés wrote about the abundance and variety of food available in Aztec markets.

Dr. Furst said that the priests had been astounded by the plentifulness of game such as deer and the pig-like peccary in forests. He said that Lake Texcoco, in which the imperial island city of Tenochtitlan was situated, was a major wintering place for migratory ducks and geese. He noted also that the Aztecs grew corn and beans and many additional vegetables and received substantial quantities

of food as tribute from conquered neighbors.

"The nutritional status of central Mexico of that day was very good," Dr. Furst said. "There just wasn't a nutritional need for human flesh."

Dr. Nancy Troike, an ethnohistorian at the University of Texas and another signer of the statement, said, "The Aztec diet before Conquest was an awful lot better than what the Mexicans are eating today."

Dr. Troike said that simply because Dr. Harner's article had been accepted by a reputable scientific journal did not mean it was proper for his views to be made known to the public.

"Things like this need to get in scholarly journals where they can be debated," she said, "but not in the popular press where people are likely to believe anything they read."

Dr. Furst said that many Aztec scholars would question the suggestion that there were 25 million people living in central Mexico in those days and that 250,000 of them were sacrificed and eaten every year. Those figures, developed by Dr. Woodrow Borah, a specialist on ancient Mexican demography at the University of California, Berkeley, were cited by Dr. Harner.

Need for Protein Asserted

Dr. Harner argued that the level of human sacrifice had been so great that it could not be explained by religious reasons alone. He suggested that, because the Aztecs had lacked large domesticated animals such as cattle or pigs, they had resorted to cannibalism to meet their need for protein.

"That the scale of human sacrifice was very large, we know," Dr. Furst said. "The Aztecs carried sacrifice to a much greater degree than anybody else. But it is explainable in terms of their religion."

Dr. Furst said that the Aztecs had believed that their world would be destroyed if the gods were not offered enough human hearts. Dr. Troike described the belief as a feeling that the gods should be fed human spirits to keep them and, hence, the material world in existence.

Dr. Furst said that in the years just before the Spanish conquest the Aztecs were obsessed with the idea that they were already living on borrowed time

and that only an unusually large number of human sacrifices would stave off the inevitable.

Dr. Furst said that small portions of the sacrificial victims had been eaten in feasts as ways of assuming the victims' strengths. Sacrificial victims, he said, were usually prisoners captured in battle and were treated with great respect by the Aztecs for the sacred role they would play.

Dr. Harner said that he was not surprised at the reaction of specialists in Mesoamerican history.

"They're going to be upset about this for obvious reasons, Dr. Harner said. 'They're not going to have the people they study looking like cannibals. They're clinging to a very romantic point of view about the Aztecs. It's the Hiawatha syndrome.'"

The statement protesting Dr. Harner's theory was also signed by H. B. Nicholson of the University of California at Los Angeles; Frances Berdan of California State University at San Bernardino; Jacqueline de Durand-Forest of the National Center for Scientific Research in Paris; Arthur J. O. Anderson of California State University at San Diego; Charles Dibble of the University of Utah; Patricia Anawalt of U.C.L.A.; Thelma Sullivan of Mexico's National Institute of Anthropology and History; Nigel Davies of the University of London; Hasso von Winning of the Southwest Museum in Los Angeles; Wayne Ruwet of U.C.L.A.; Stephen Colston of U.C.L.A.; Cecelia Klein of U.C.L.A.; Doris Heyden of the National Institute of Anthropology and History; Barbara Branstetter of U.C.L.A. and Constanza Vega of the National Institute of Anthropology and History.

Guilty in 'Green Card' Sales

NEWARK, March 2 (AP) — A Trenton man has pleaded guilty to charges of selling stolen Federal Alien Registration Cards to aliens seeking to stay in this country. The defendant, Jean Isme, 39 years old, a native of Haiti, admitted in Federal Court here yesterday that he had conspired to sell at least 20 stolen documents, commonly referred to as "green cards." He faces a maximum penalty of 15 years in jail and a \$20,000 fine.

Carter, Looking to a Lid On Federal Employees, Orders Curb on Hiring

WASHINGTON, March 2 (AP)—President Carter ordered all Federal departments and agencies today to fill no more than 75 percent of their civilian job vacancies pending the establishment of new employment ceilings.

The directive takes effect immediately and will continue until the Office of Management and Budget develops new agency-by-agency ceilings, probably in April.

Jody Powell, White House press secretary, said that some departments might have to continue the hiring lids for a longer period to meet the ceilings now being prepared.

In his fireside talk to the country on Feb. 2, Mr. Carter said, "Soon, I will put a ceiling on the number of people employed by the Federal Government agencies, so we can bring the growth of Government under control."

There is a ceiling now, and the implication of Mr. Carter's remark was that he would lower it. The present ceiling of 2,108,500 Federal employees was set by President Ford.

As part of the annual budget process, each President sets an employment ceiling on departments and agencies that covers full-time, part-time and temporary employees.

Mr. Carter ultimately could order lower ceilings for some agencies but raise them for others. The increases and decreases could balance out, leaving his overall ceiling near Mr. Ford's. If Mr. Carter's ceiling is below Mr. Ford's, his changes would be following the downward trend of five of the last seven years.

Besides the 2,108,500 employees under the Federal maximum, there are 694,400 employees in the Postal Service, which is not subject to Presidential direction, and about 23,000 exempt persons working in job training programs.

Under today's directive, agencies can fill no more than 75 percent of the vacancies that occur through attrition after Feb. 28. Mr. Powell said there was about a 10 percent annual turnover in the Federal work force.

para Veracruz, ahora las autoridades se vean obligadas a construir unas instalaciones a la altura de la categoría del puerto veracruzano. Hace 50 años Veracruz estaba considerado entre los primeros 10 puertos del mundo. Actualmente no figura en la lista de los 50 primeros. La falta de honestidad de algunos funcionarios aduanales, la corrupción de los vistas, la práctica del soborno, el contrabando y la prostitución que se propicia a bordo de los barcos anclados, han dado al traste con la fama que en otro tiempo tuvo la "tres veces heroica".

TABASCO

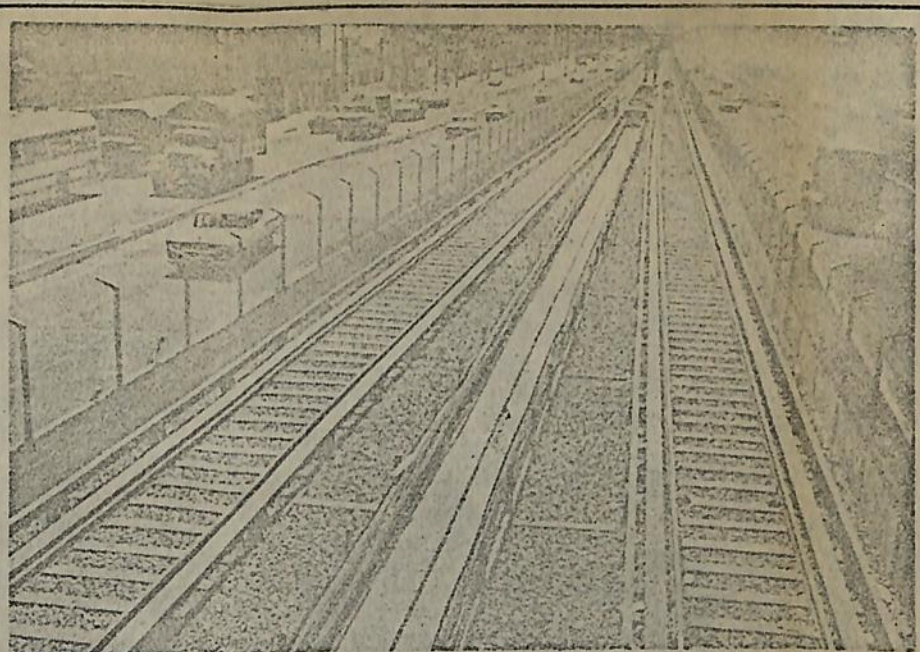
Domínguez Canabal

El Teatro del Pueblo, del Parque Tabasco en la ciudad de Villahermosa, Tab, fue el escenario en el cual, el domingo 29 de marzo, Alfonso Martínez Domínguez, presidente del Comité Ejecutivo Nacional del Partido Revolucionario Institucional (PRI), tomó la protesta estatutaria al Sr Agapito Domínguez Canabal, como candidato del instituto político de la Revolución al gobierno del Edo de Tabasco.

Durante la convención estatal, en la que los tres sectores priistas proclamaron a Domínguez Canabal, Martínez Domínguez dirigió un importante mensaje en el que afirmó, entre otras cosas, que no obstante los logros de la Revolución en el país, "no podemos, ni debemos darnos por satisfechos; ni en Tabasco ni en parte alguna del país. Necesitamos y queremos hacer más. Son grandes y complicados los problemas que afectan a nuestro pueblo; las necesidades, las carencias, todavía son enormes. Sería ridículo y condenable que alguien se ufanara del cumplimiento cabal de vitales tareas de mejoramiento económico, social y cultural, que todavía demandan, y demandarán por largo tiempo, un esfuerzo conjunto del gobierno y del pueblo, y un esfuerzo muy decidido, racionalmente planeado y eficazmente dirigido". (Ver texto íntegro del discurso en la página 25.)

En otra parte de su intervención, el rector de los destinos del PRI aseveró que otros hijos de Tabasco fueron mencionados como posibles candidatos a la gubernatura, y que el PRI estima en todos ellos su calidad humana y política, sus méritos y merecimientos. Reiteró que el PRI seguirá siendo la fuerza decisiva, gracias, entre otras cosas, a que las multitudes que lo integran, y sus dirigentes, y sus miembros responsables, tienen muy arraigado el sentido de la unidad, y practican esa unidad para fortalecer y llevar adelante al partido, por encima de cualquier interés particular, que siempre es circunstancial.

Explicó AMD que esta unidad del PRI es inherente a su propia naturaleza, a su carácter de coalición de las fuerzas fundamentales del pueblo mexicano. "Es la unidad —dijo— que ha otorgado a nuestro partido su superioridad cualitativa y cuantitativa. Es la unidad que le ha permitido triunfar en todas las elec-



Servicios Especiales

EL "METRO" METRO A METRO

A fines de mayo se espera concluir el tramo de superficie del Metro que va desde la estación Pino Suárez de la línea 1 hasta la estación Taxqueña, a lo largo de la calzada de Tlalpan. Tiene una longitud de 9,980 m. Contará con 11 estaciones. Los muretes y el alambrado de protección que separan a las vías de los arroyos para vehículos, están terminados desde Boturini hasta la estación Portales. En la foto: un sector de la vía de superficie sobre la calzada de Tlalpan.

ciones nacionales, y en casi todas las elecciones locales, y que le ha dado el derecho a dirigir al país durante cuatro décadas. Esta unidad del PRI, por otra parte, ha operado como un eje de la unidad de las grandes fuerzas partidarias de la Revolución Mexicana y aun de la unidad nacional."

Más adelante, Martínez Domínguez afirmó: "Gustavo Díaz Ordaz y Luis Echeverría han proclamado y promovido la autocrítica como una norma saludable e indispensable para la vida nacional. Y han surgido, en el curso de esta campaña presidencial de Luis Echeverría, muchas manifestaciones críticas y autoocríticas. El candidato mismo estimula la crítica sana y la autocrítica responsable. No es la suya una peregrinación por todo el país solamente para escuchar aplausos, alabanzas y frases de satisfacción. Ha ido, fundamentalmente, a comunicarse con el pueblo y con todas las clases sociales, a conocer más al país y sus problemas, a escuchar quejas y denuncias, a confrontar opiniones y debatir ideas. De todo esto resulta que la campaña haya adquirido las proporciones de una amplísima consulta nacional sobre los problemas y las aspiraciones del pueblo de México."

Agapito Domínguez Canabal —pelo cano prematuro, entusiasta y dinámico— pronunció un emotivo discurso, uno de cuyos párrafos fue el que sigue:

"Ratifico hoy en la palabra, lo que he apoyado con los hechos de toda mi vida: soy, he sido y seguiré siendo un político al servicio de las mejores causas de Tabasco. Contra lo que se acostumbra decir en estos casos, por falsa

modestia o por falta de convicciones, yo sí he buscado gobernar a mi tierra natal; lo he buscado apasionadamente, tercamente; he sido un ambicioso irreductible por alcanzar la máxima representación de Tabasco, pero el afán que me guía no es otro que entregar hasta el último minuto de mi tiempo, hasta el último aliento de mi esfuerzo, hasta la última gota de mi sangre, por hacer de Tabasco la tierra donde impere la justicia, donde se multipliquen las oportunidades de trabajo, donde los tabasqueños se superen en la cultura, en el deporte, en la ciencia y en la tecnología."

OAXACA

La Otra Cara

Huautla de Jiménez, en el Edo de Oaxaca, está otra vez de moda. Alfonso Corona Blake, productor de cine, prepara una película sobre el tema de los hongos alucinógenos y su título será, por consiguiente, Huautla. Además, hippies mexicanos y extranjeros han comenzado a soportar con estoicismo la cálida temporada primaveral ante la perspectiva de un grato verano en la sierra mazateca, húmeda y saturada de hongos. Pero contra toda la mala publicidad de que se ha hecho objeto a Huautla, se levanta su vida económica cotidiana, su labor productiva, su capacidad cafetalera a la que no hacen mella las costumbres ambientales enmarcadas en creencias y supersticiones.

Huautla es un pequeño poblado, cabecera del municipio del mismo nombre, con 3,314 habitantes. El municipio tiene 12,014 poblados y comprende, además de



Mayo
CORTANDO EL GRANO DE CAFÉ
...un pueblo, problemas y aspiraciones...

la cabecera, 11 congregaciones más. Aunque el lugar —chico y todo— data de la época prehispánica, fue elevado a la categoría de ciudad el 21 de marzo de 1927 por decreto de la XXXI Legislatura de la entidad, siendo gobernador Jenaro Vázquez.

La fisonomía de Huautla de Jiménez es pintoresca y agradable. Su caserío se yergue en las laderas de montes desprendidos casi de la imponente sierra mazateca. Parece que las casas "se derraman" hacia abajo entre huertos y la verdura de los cafetos. Cruza la localidad un río cuyas aguas bañan a los cinco barrios más populares y conocidos de Huautla: el Mixteco, el Fortín, el Llano o "Plan de basura" y los de las lomas de Chilar y Chapultepec.

No hay comerciantes extranjeros en Huautla. El comercio está en manos de indígenas o mestizos que realizan sus mejores ventas los domingos, días de mercado. Trabajadores y responsables, los huautlecos han destinado un día de cada semana al popular tequio o faena, que consiste en que los lugareños, encabezados por el presidente municipal —Felicitos Pineda Cabanzo— y los regidores, intervienen voluntariamente en la construcción de obras de beneficio colectivo para la población. El tequio ha existido desde tiempos inmemoriales, cuando un indígena del lugar subía a alguno de

los montes circundantes y hacía sonar un caracol para señalar el comienzo de la faena.

En la sierra mazateca se practica el monocultivo: café. Es conocido el hecho de que la zona norte del Edo de Oaxaca ocupa el tercer lugar como productor de café en la República Mexicana, con el 12.17% de la producción nacional, consistente en 353,000 sacos de 60 kg cada uno. La producción anual de café en Huautla es de 150,000 quintales cosechados en una extensión de 21,000 hec mal cultivadas, con plantaciones en decadencia y con más de 25 años de explotación continua. Por este motivo, el Instituto Mexicano del Café (IMC) dispuso que no se abran nuevas zonas al cultivo y que todas las actividades se encaminen a mejorar las zonas cultivadas para aumentar la productividad. Con tal motivo se crearon 30 viveros de cafetos, mediante el donativo de semillas para 260,000 plantas en los pueblos de Chilchotla, Tenango, Huautla, San Jerónimo Teocatl, Santa Cruz Acatepec, Ayautla, San Mateo y San Antonio Eloxochitlán.

Durante muchos años, los productores de café —cada uno de los cuales posee parcelas de menos de 50 hec— fueron víctimas de los acaparadores que pagaban precios muy bajos por el grano. Por ese motivo, el IMC creó, en 1962, un expendio de Beneficios Mexicanos del Café (BEMEX). Esta empresa había sido creada para dirigir técnicamente la producción cafetalera del país y regular los precios oficiales en el mercado interno de acuerdo con los precios del exterior. Al nacer BEMEX en la sierra mazateca, se crearon tres agencias: una en Huautla, otra en Puente de Fierro y otra más, móvil, que se encarga de hacer compras de café en sitios poco accesibles. En temporada de cosecha, BEMEX ha llegado a comprar en la zona de Huautla hasta \$100,000 diarios de café.

BEMEX orienta al productor para que mejore la calidad del grano. Lo asesora para que el café no se manche, se humedezca o despidan mal olor. Con estas medidas, la calidad de la producción en la zona ha mejorado en el 80% y, al mismo tiempo, el precio por quintal subió un 15% en relación con lo que pagaban los acaparadores.

Debido a que el cultivo del café requiere de una atención muy cuidadosa, los agricultores encontraron en BEMEX un poderoso auxiliar. El Lic Aquilino Márquez Toledo, presidente de BEMEX en Huautla, afirma que "el café debe seleccionarse desde las plantas nodrizas, llamadas *huajinicuil*, que impiden que el cafeto reciba directamente los rayos solares y regulan la sombra. Demasiada sombra o demasiado sol, dan al traste con el producto".

Una vez vendido el grano, se le procesa en la planta de beneficio de tipo rural. Allí, en sifones despulpadores, el café permanece en agua dos días hasta que fermenta. Luego se expone al sol y se le lleva a la secadora y, posteriormente, a la planta beneficiadora de Córdoba, Ver, en donde queda listo para el consumo.

En la labor de mejoramiento del café interviene también el Instituto Nacional Indigenista (INI) que, en coordinación con el IMC y las asociaciones agrícolas, instruyen al campesino. Afirma el INI que su objetivo, en este aspecto, es propiciar la producción de nuevas especies, así como la renovación, podas y diversificación de cultivos, y buscar mercados y defender a los pequeños productores de la voracidad de los particulares. Logra, también, mayor capacidad de compra, promover la instalación de plantas beneficiadoras de café, gestionar ante la Compañía Nacional de Subsistencias Populares (CONASUPO) el establecimiento de tiendas, construir clínicas "periféricas" y auxiliar a los lugareños en materia de educación, salubridad, caminos, agricultura y economía.

Pero la meta esencial del INI es motivar la diversificación agrícola mediante la introducción de otros cultivos que ayuden al cafecultor a mejorar su economía; incrementar la siembra de cítricos, aguacates y frutas. Para ello se proporciona a los campesinos fertilizantes, insecticidas, herramientas de labranza, aspersores, tijeras para poda, navajas para injertos, mangueras para riego, semillas, caballos de silla, etc.

La Asociación Agrícola local, por conducto de su presidente, Dⁿ Fernando García García y 315 socios activos, atiende a 5,000 habitantes del municipio que se dedican a la producción de café. Defiende, además, los intereses de sus miembros; consigue créditos; renueva sus cultivos y está al tanto de cualquier problema para buscarle solución; también crea cooperativas con el fin de establecer centros exportadores, y proporciona ayuda al municipio en las mejoras materiales que lleva a cabo.

Dice Dⁿ Fernando que los campos de Huautla están erosionados, las tierras pobres. Hay una situación crítica y por eso se ha desatado una campaña para hacer siembras que tengan un rendimiento más efectivo. "Tratamos —asegura— de diversificar los cultivos y, en consecuencia, lograr mayores ingresos. El monocultivo dura cuatro meses, y cuando pasa esta temporada, el comercio local sufre un nocivo estancamiento. Ahora hemos vuelto los ojos hacia la producción de árboles frutales que ocuparían a los agricultores mientras llega la próxima temporada cafetalera."

Este es Huautla de Jiménez. Un pueblo con problemas y aspiraciones, que se desarrolla al margen de seres derrotados, barbudos y viciosos, que llegan a la comarca con la temporada de lluvias, cuando los hongos brotan.

CHIAPAS

Velasco Suárez

El 24 de marzo, el Dr Manuel Velasco Suárez fue proclamado candidato del Partido Revolucionario Institucional a la gubernatura del Edo de Chiapas, durante la asamblea estatal que, presidida por



UNIVERSIDAD NACIONAL TÉCNICA DE PIURA

PIURA

Aztecas Volaban Con Hongos



Hongo de piedra, que acompañaba en México y América Central, precolombinos, a las prácticas rituales con estas alucinógenas.

Sahagún, el célebre historiador de México, compara los efectos de las setas alucinógenas mexicanas, "embriagadoras como el vino", a los del peytl, de donde se extrae un alcaloide alucinógeno, llamado mesalina.

Las investigaciones realizadas por el doctor R. G. Wasson, permiten suponer que en la época precolombina, las setas sagradas eran consumidas en muchos lugares y públicamente.

Los descubrimientos arqueológicos en México, confirmaron la lógica de suponer la realización de prácticas rituales con alucinógenos. Las estatuillas llamadas "pedras seta", de Guatemala, del istmo de Tehuantepec y de Veracruz, parecen indicar una similitud a las prácticas en ese sentido llevadas a cabo por los sacerdotes mayas.

Por otra parte en los frescos de Teopancaalco y de Teotihuacán, ciertas imágenes representan evidentemente las "famosas" setas alucinógenas. Los rituales efectuados bajo la influencia de los alucinógenos siguen vigentes en muchas partes y se realizan de la siguiente manera:

Ante una asistencia crédula y llena de respeto o miedo, una curandera, absorbe las setas alucinógenas, secas o crudas, jamás cocidas (ya que así perderían sus cualidades). En la exaltación que posee a la curandera, provocada por la ingestión de los hongos alucinógenos, esta responde a las preguntas que le hacen los asistentes a la ceremonia mágica.

La alucinación es para la curandera, como los "reveladores" que le permiten escuchar las palabras o dichos del Más Allá. Guy S. Presser-Péan, relata la supervivencia (actual) de viejas

The 'Diabolic Root'

By WESTON LA BARRE

RECENTLY, the Supreme Court of California set aside the conviction of three Navaho Indians who had been arrested while engaged in a traditional religious ritual which involves the use of peyote—a cactus that contains, in small amounts, a moderately potent psychotropic substance called mescaline, and that when eaten produces hallucinations in color. A court of appeals in California had previously upheld the original court's conviction, which imposed a suspended sentence of two to ten years in jail on condition that the Indians give up this religious practice. The Supreme Court, in reversing the judgments of the two lower courts, ruled that "to forbid the use of peyote is to remove the heart of peyotism" and so infringes the principle of religious freedom.

Peyote—the *raíz diabólica*, or "diabolic root"—is a small, carrot-shaped cactus, the gray-green top of which resembles a little dumpling or pincushion divided by curving radial ribs. The cactus has no spines, but atop the divisions made by the ribs are off-white tufts of matted fuzz, looking somewhat like small water-color brushes, from which peyote gets its neo-Greek botanical name, *Lophophora williamsii* ("crest bearer"). Cut off horizontally about ground level, this puffy top becomes the woody, bitter and weedy-tasting "peyote button." It grows wild in the Rio Grande valley and southwestward. (It should not, incidentally, be confused with mescal proper, from which beer and tequila are made, nor with the hallucinatory mushroom called teonanacatl, nor with LSD.)

THERE are two stages in the physiological effects that result from eating peyote. First, the strychnine-like alkaloids in the cactus give a feeling of excitement and exhilaration like that induced by strong coffee. The face becomes flushed, the pupils dilate and the person tends to be talkative, light-headed and wakeful. (These alkaloids have been experimented with in pure form because of a possibility that they might be useful in treatment of heart disease.)

Later, the opposing alkaloids, chiefly mescaline, come into action and their effects last for 10 to 12 hours. Time perception is altered and a

WESTON LA BARRE, a professor of anthropology at Duke, is the author of several books, including "The Peyote Cult," which was recently reissued in a revised edition.



CEREMONY—A drawing of an Indian religious meeting in which members eat "buttons" of the vision-producing cactus called peyote.

curious sense of double existence occurs. One part of the mind remains critical and well-oriented, but when the eyes are closed and opened, elaborately beautiful designs are seen—fields of brilliantly colored jewels, vast and slowly changing geometrical constructions, occasionally the so-called "wall-paper effect," when diagonal lines of identical shapes change simultaneously, as in a toy kaleidoscope.

BOTH Indians and whites have reported violently terrifying visions, like images of supernatural monsters. At other times they have seen more comical monsters—a six-legged animal with ducks' heads for feet, for example, with each foot squawking ridiculously each time it is put down. Most impressive, probably, are scintillating aurora borealis scenes. Artists have said that their sense of color and design has been permanently heightened by peyote.

Other than visual hallucinations occasionally occur. One Indian member of the sect that uses peyote, the Native American Church, heard the sun come up with a gradually increasing roar. Another felt that the sound of a drum used in the ceremony lifted him up into the air. Some early writers have said that peyote is an aphrodisiac, and others just as firmly aver that it is anti-aphrodisiac; it is probably neither. There is no "hang-over" and no great toxic effects have been noted although sometimes, as with alcohol, Indians vomit from

eating too many buttons at once.

Peyote is not habit-forming, for Indians often suddenly abandon peyotism and join a more Christianized church. After attending peyote rituals, and sometimes joining in them, on two field trips among Indian tribes, the writer has never used, nor felt the need to use, peyote during a quarter of a century. Some dozens of professional anthropologists who have studied peyotism would testify to the same effect. All authorities agree that peyote is not addictive.

MEXICAN tribes have used peyote since pre-Columbian times. Between 1870 and 1890 the peyote religion diffused, via Southwestern Apaches and Texan Tonkawas, to the Comanche and Kiowa of the southern Great Plains. It has now spread over most Plains tribes as well as westward to the Washo of Nevada-California and northward to the Cree and other Canadian tribes. Peyotism is the main present-day native religion of more than 50 American Indian tribes including, among the best-known, the Cheyenne, Arapaho, Shawnee, Pawnee, Delaware, Osage, Ponca, Omaha, Winnabago, Kickapoo, Ute, Crow, Iowa, Paiute, Blackfoot and Chippewa. Among Siouans and Utah tribes, it has become much mixed with Christian elements, both Catholic and Protestant.

In the standard peyote meeting, the Indians enter a teepee about nightfall and pass clock-

(Continued on Page 98)

(Continued from Page 96)

wise to sit on a sagebrush-padded seats around a crescent-shaped earthen altar on which is an unusually large or fine peyote button. A fire is burning before the altar. The leader, or "Road Chief," sings the traditional Opening Song, holding a staff in his left hand and a medicine man's rattle in his right, to the drumming of the "Drum Chief" to his right. After the Road Chief directs the censuring of communicants with smoke from cedar chips thrown onto the fire and everyone has made a prayer smoke (which must be of Bull Durham tobacco and should be made of oblong-cut cornhusks or dried blackjack oak leaves), peyote is passed around.

The meeting is continued as each man in clockwise order sings four self-chosen peyote songs, holding the shaman's staff and rattle as his right-hand partner drums for him. Peyote songs are brisk rhythmic chants and are of three kinds: the Opening and three other ritual songs are in an unknown, archaic language, probably from the Southwest or Mexico; songs in the singer's tribal language, and Christianized songs (for example, "God, I thank You for all You have done for me through Jesus's name," and "God's Son says, 'Get up and follow Me.'")

AT midnight the Road Chief sings the Midnight Song, goes out of the teepee and blows an eagle wingbone whistle at the four corners of the compass. Singing then goes on again until dawn. The Road Chief then sings the Morning Song, whereupon his wife, representing "Peyote Woman," brings in a water bucket and bowls of parched corn in sugar water, fruit and boneless meat set in a west-to-east line before the altar. After prayer, each person partakes of the meal. This ritual, "peyote breakfast," dates back to prehistoric Mexico—and yet a modern Montana tribe was still ritually correct in serving corned beef, canned peaches and Cracker Jack!

Afterward, people lie around in the shade talking about their visual experiences and asking one another what they might mean. Perhaps someone has "caught" a new peyote song; another has had a vision which may predict good or bad luck ahead. Similar visions and events in the past are compared. At about noon a purely secular meal is served, and people go home, none the worse except for a sleepless night.

Some tribes, especially the Sioux, have an aboriginal custom of public confession of sin in the meeting; others cry with real tears in the old-fashioned way of prayer. The sick are doctored, the young admonished, a couple married, and

Peyote and the Law

Virtually the only commercial sources of supply for peyote are a handful of Indian families in Texas, Arizona and New Mexico who collect the cactus primarily for use by other Indians in religious ceremonies. Purchase of the drug by non-Indians in any large amounts is rare.

The use of peyote is forbidden in a number of states. There is no Federal law prohibiting such use, but the Food and Drug Administration has classified peyote as a drug (non-narcotic) that requires a doctor's prescription. Legally, the Federal Government's jurisdiction in this area is confined to instances where in peyote is transported across state lines, directed to non-Indians who are obviously not obtaining it for use in religious ceremonies and just as obviously have not had it prescribed by a physician, since peyote has no medicinal value.

the dead funeralized in peyote meetings. Any Indian is welcome and peyotism has become a pan-Indian movement; some tribes welcome Negroes, but only a trusted white man may attend.

WHAT stand should a reasonable and well-informed person take toward this Indian cult? Missionaries, Indian agents, anthropologists, legislators and judges have differed in their answers.

Is peyotism "drug addiction in a religious disguise"? But it is a bona-fide traditional religion, and peyote is not ad-

dictive. Indians say they do not eat wafers and drink wine, but eat peyote and drink pure water. They say that "the white man goes into church and talks about Jesus, but the Indian goes into a teepee and talks to Jesus." Some cite the Bible, "And they shall eat the flesh in that night, roast with fire, and unleavened bread; and with bitter herbs they shall eat it" (Exodus xii, 8).

Since the liberal regime of John Collier, Franklin D. Roosevelt's Commissioner of Indian Affairs, government authorities have taken the lenient view of permitting Indians religious, as well as political, self-choice. Responsible legislators and judges have all, ultimately, taken a liberal permissive attitude also. Anthropologists, perhaps the persons best informed on the subject, have uniformly defended Indian rights.

AS one anthropologist puts it, "There can be no shadow of a doubt concerning the deep and humble sincerity of the worship and belief—and sincerity perhaps, even in the absence of other ingredients, is the chief component of a living religion. And if the chief function of a religion is the liquidation of the anxieties and the solution of the fears and troubles of its adherents, then the peyote religion eminently qualifies as such. . . . Western man already complacently accepts (since it is his) the mass use of substances such as tobacco and alcohol which, to physical health, can be far more dangerous than a weekly Indian use of a feebly psychotropic desert plant. And as for his mental health, Western man is already embedded in narcotic institutions such as advertising, television and movies—which invite illusions about ourselves fully as dangerous as any Indian religious cult."



'THE ROOT'—A crown of peyote surrounded by smaller growths. The puffy top is cut off to obtain the bitter-tasting "button."

mycophobia for one and all

Fig. 15.38. *Amanita muscaria*, the fly amanite, a highly poisonous mushroom. Note the "death cup" at the base, found on many poisonous (and some edible) mushrooms. (Courtesy of the Department of Plant Pathology, Cornell University.)

fine example of seeing something that isn't there!



ceae; members of this family are sometimes called agarics.

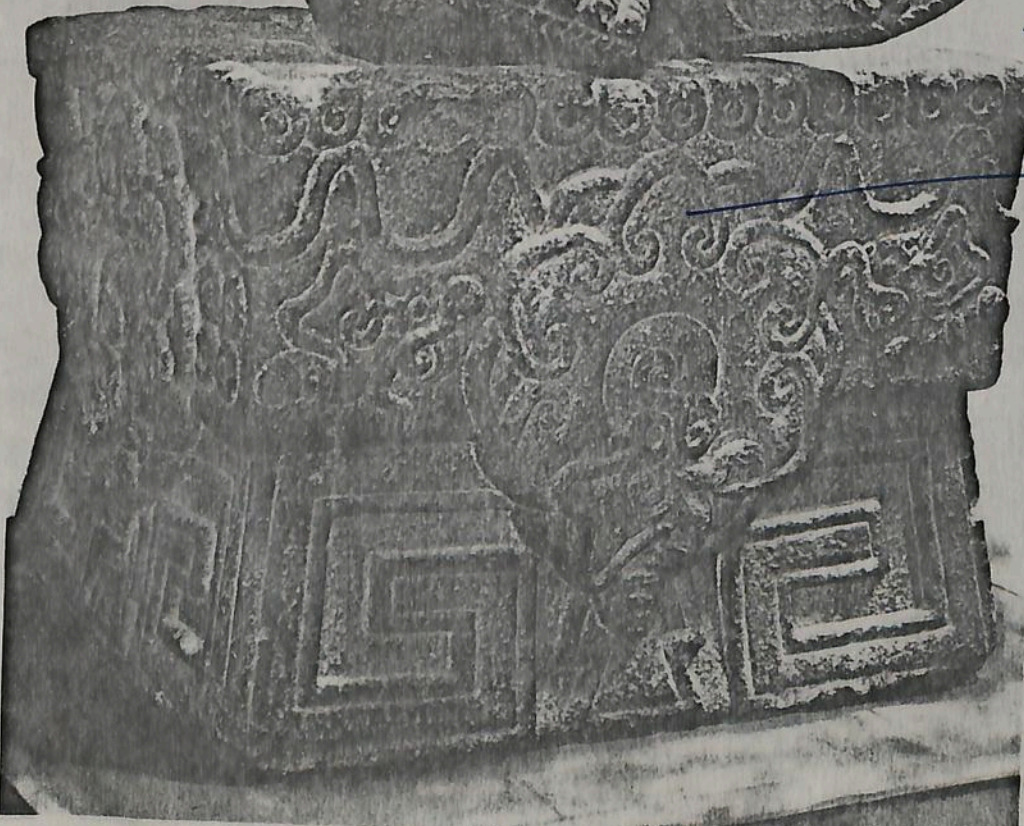
Agarics are mostly saprophytic, occurring especially in soil that is rich in organic matter, or on rotting logs or stumps, etc., but some are facultative parasites on the roots of trees and elsewhere, or they may be involved in mycorrhizal associations (see p. 279). The vegetative mycelium is buried in the substratum and sends up fruiting bodies at irregular intervals of months or years, usually after soaking rains. A mycelium established at a single point tends to enlarge radially in all directions and to die out at the center with the depletion of the available food supply. Successive crops of fruiting bodies may thus be produced in successively larger rings, often called fairy rings, before environmental hazards break up the ring or change its shape. Puffballs often produce fairy rings in the same manner.

Many agarics are edible and are considered great delicacies, but others are extremely poisonous. Some species of *Amanita* (Fig. 15.38) are so virulent that a piece 1 cubic centimeter in size may be fatal, and there is no known antidote for

the poisonous principle of these species. Other species of *Amanita* are harmless; *Amanita caesaria* is so named because the emperor Nero was reputedly fond of it. Some kinds of mushrooms are poisonous to some people and harmless to others, and a few are poisonous only when consumed more or less concurrently with alcoholic beverages. Some poisonous amanitas have the stipe seated in a basal cup, commonly called the death cup, but some edible mushrooms have a similar cup, and some poisonous ones lack it. There is, in fact, no test, other than actual eating, which will distinguish all poisonous mushrooms from all edible ones, and this test is not conducive to the tester's longevity. It is, of course, possible to learn to recognize individual species which are edible and to learn also to recognize some of the notoriously poisonous species, but the chances of error are so great, and the possible results of error so serious, that people who are not competent mycologists are better advised to forego the consumption of wild mushrooms. The common field mushroom, *Agaricus campestris*, is widely cultivated, and at least in the United States only the



Psilocybe sp.



Psilocybe sp.

15% at Princeton Have Tried Narcotics

Special to The New York Times

PRINCETON, N. J., April 8

Fifteen per cent of the un-

dergraduates at Princeton Uni-

versity have experimented with

hashish or LSD,

according to a study released

today by a group of campus

correspondents at Princeton.

The finding based on 150 con-

fidential interviews with stu-

dents, coincides exactly with

an estimate made by Robert F.

Goheen, president of Princeton,

in an interview on March 15,

The campus reporters, who

met at Princeton tightened up

to do art work under the in-

fluence of marijuana. "It gives

you unimaginable versatility

with what one can do with one-

self," he explained. "You can

melt into a picture and recall

past images."

A psychology major who

takes marijuana frequently and

LSD occasionally observed, "I

think that the effects of the

drug are constructive to the

development of individual

identity, that is, helping the

individual to learn about him-

self and enjoy life. Alcohol, on

the contrary, inhibits conscious-

ness rather than expands it."

years nor more than 15 years

if convicted.

Campus reaction to the raids

was summed up in an editorial

in The Daily Princetonian,

joyable luxury, not an intellec-

said, "I take them as an en-

of experimentation with drugs

from extreme tension. I smoke

it every day for a while and

then I won't have it for a

month."

Another explanation cited for

less than that of alcohol.

Immediately following the

raids in January, the drug mar-

ket at Princeton tightened up

noticeably, but now the supply

has reopened. Marijuana sells

for about \$10 for half an ounce,

enough for half a dozen pipe-

fuls, and hashish is approxi-

mately \$1 a cigarette. The price

often varies with the New

York price.

The two most common rea-

sons listed by the students in-

terviewed for using drugs were

to relieve boredom and reduce

depression. A national merit

scholar who takes marijuana

occasionally called it "a great

release from the series of

hoops that one has to jump

years nor more than 15 years

if convicted.

Campus reaction to the raids

was summed up in an editorial

in The Daily Princetonian,

joyable luxury, not an intellec-

said, "I take them as an en-

of experimentation with drugs

from extreme tension. I smoke

it every day for a while and

then I won't have it for a

month."

Another explanation cited for

less than that of alcohol.

Immediately following the

raids in January, the drug mar-

ket at Princeton tightened up

noticeably, but now the supply

has reopened. Marijuana sells

for about \$10 for half an ounce,

enough for half a dozen pipe-

fuls, and hashish is approxi-

mately \$1 a cigarette. The price

often varies with the New

York price.

The two most common rea-

sons listed by the students in-

terviewed for using drugs were

to relieve boredom and reduce

depression. A national merit

scholar who takes marijuana

occasionally called it "a great

release from the series of

hoops that one has to jump

years nor more than 15 years

if convicted.

Campus reaction to the raids

was summed up in an editorial

in The Daily Princetonian,

joyable luxury, not an intellec-

said, "I take them as an en-

of experimentation with drugs

from extreme tension. I smoke

it every day for a while and

then I won't have it for a

month."

Another explanation cited for

less than that of alcohol.

Immediately following the

raids in January, the drug mar-

ket at Princeton tightened up

noticeably, but now the supply

has reopened. Marijuana sells

for about \$10 for half an ounce,

enough for half a dozen pipe-

fuls, and hashish is approxi-

mately \$1 a cigarette. The price

often varies with the New

York price.

The two most common rea-

sons listed by the students in-

terviewed for using drugs were

to relieve boredom and reduce

depression. A national merit

scholar who takes marijuana

occasionally called it "a great

release from the series of

hoops that one has to jump

years nor more than 15 years

if convicted.

Campus reaction to the raids

was summed up in an editorial

in The Daily Princetonian,

joyable luxury, not an intellec-

said, "I take them as an en-

of experimentation with drugs

from extreme tension. I smoke

it every day for a while and

then I won't have it for a

month."

Another explanation cited for

less than that of alcohol.

Immediately following the

raids in January, the drug mar-

ket at Princeton tightened up

noticeably, but now the supply

has reopened. Marijuana sells

for about \$10 for half an ounce,

enough for half a dozen pipe-

fuls, and hashish is approxi-

mately \$1 a cigarette. The price

often varies with the New

York price.

The two most common rea-

sons listed by the students in-

terviewed for using drugs were

to relieve boredom and reduce

depression. A national merit

scholar who takes marijuana

occasionally called it "a great

release from the series of

hoops that one has to jump

years nor more than 15 years

if convicted.

Campus reaction to the raids

was summed up in an editorial

in The Daily Princetonian,

joyable luxury, not an intellec-

said, "I take them as an en-

of experimentation with drugs

from extreme tension. I smoke

it every day for a while and

then I won't have it for a

month."

Another explanation cited for

less than that of alcohol.

Immediately following the

raids in January, the drug mar-

ket at Princeton tightened up

noticeably, but now the supply

has reopened. Marijuana sells

for about \$10 for half an ounce,

enough for half a dozen pipe-

fuls, and hashish is approxi-

mately \$1 a cigarette. The price

often varies with the New

York price.

The two most common rea-

sons listed by the students in-

terviewed for using drugs were

to relieve boredom and reduce

depression. A national merit

scholar who takes marijuana

occasionally called it "a great

release from the series of

hoops that one has to jump

years nor more than 15 years

if convicted.

Campus reaction to the raids

was summed up in an editorial

in The Daily Princetonian,

joyable luxury, not an intellec-

said, "I take them as an en-

of experimentation with drugs

from extreme tension. I smoke

it every day for a while and

then I won't have it for a

month."

Another explanation cited for

less than that of alcohol.

Immediately following the

raids in January, the drug mar-

ket at Princeton tightened up

noticeably, but now the supply

has reopened. Marijuana sells

for about \$10 for half an ounce,

enough for half a dozen pipe-

fuls, and hashish is approxi-

mately \$1 a cigarette. The price

often varies with the New

York price.

The two most common rea-

sons listed by the students in-

terviewed for using drugs were

to relieve boredom and reduce

depression. A national merit

scholar who takes marijuana

occasionally called it "a great

release from the series of

hoops that one has to jump

years nor more than 15 years

if convicted.

Campus reaction to the raids

was summed up in an editorial

in The Daily Princetonian,

joyable luxury, not an intellec-

said, "I take them as an en-

of experimentation with drugs

from extreme tension. I smoke

it every day for a while and

then I won't have it for a

month."

Another explanation cited for

less than that of alcohol.

Immediately following the

raids in January, the drug mar-

ket at Princeton tightened up

noticeably, but now the supply

has reopened. Marijuana sells

for about \$10 for half an ounce,

enough for half a dozen pipe-

fuls, and hashish is approxi-

mately \$1 a cigarette. The price

often varies with the New

York price.

The two most common rea-

sons listed by the students in-

terviewed for using drugs were

to relieve boredom and reduce

depression. A national merit

scholar who takes marijuana

occasionally called it "a great

release from the series of

hoops that one has to jump

years nor more than 15 years

if convicted.

Campus reaction to the raids

was summed up in an editorial

in The Daily Princetonian,

joyable luxury, not an intellec-

said, "I take them as an en-

of experimentation with drugs

from extreme tension. I smoke

it every day for a while and

then I won't have it for a

month."

Another explanation cited for

less than that of alcohol.

Immediately following the

raids in January, the drug mar-

ket at Princeton tightened up

noticeably, but now the supply

has reopened. Marijuana sells

for about \$10 for half an ounce,

enough for half a dozen pipe-

fuls, and hashish is approxi-

mately \$1 a cigarette. The price

often varies with the New

York price.

The two most common rea-

sons listed by the students in-

terviewed for using drugs were

to relieve boredom and reduce

depression. A national merit

scholar who takes marijuana

occasionally called it "a great

release from the series of

hoops that one has to jump

years nor more than 15 years

if convicted.

Campus reaction to the raids

was summed up in an editorial

in The Daily Princetonian,

joyable luxury, not an intellec-

said, "I take them as an en-

of experimentation with drugs

from extreme tension. I smoke

it every day for a while and

then I won't have it for a

month."

Another explanation cited for

less than that of alcohol.

Immediately following the

raids in January, the drug mar-

ket at Princeton tightened up

noticeably, but now the supply

has reopened. Marijuana sells

for about \$10 for half

"Alcoa Presents" - Jan. 23, 1961.
John Newland. The "sacred
mushrooms" of Mexico. (TV)

Expedition to Mexico with:

Dr. A. Puharich M.D. (Calif.)

Dr. Barbara Brown

Dr. Smith

Translator

TV crew

Place: Tijuana?

Time?

The "brujos" Macedonia tells them
where a stolen burro is to be
found; diagnoses Dr. Brown's heart
ailment.

Back in Puharich's office, Newland
gives various ESP tests, before and
after eating mushrooms. Blindfolded
he identifies photos, selects cards, calls
page numbers. Sees brilliant colors
under influence of mushrooms.

"Mushrooms, Runes & Visions" mentioned
as among books on Puharich's shelf.

The Mosse Ferne, *Polypodium dryopteris*, "hath in the roote a harsh or choking taste, and a mortifying qualitie, and therefore it taketh away haire" (G.974). Most likely, though, Shakespeare meant the moss of trees, which was supposed to have soporific qualities (G.1370).

Yew

Scroop. Thy very beadsmen learn to bend their bows
Of double-fatal yew against thy state.
(*Richard II*, III.ii.116-117).

3. *Witch*. . . . and slips of yew
Slivered in the moon's eclipse.
(*Macbeth*, IV.i.27-28).

Gerarde says of the Yew, *Taxus*, spp. that is is reported that it

is of a venomous qualitie, and against mans nature. Dioscorides writeth, and generally all that heretofore have dealt in the facultie of herbarisme, that the Yew tree is very venomous to be taken inwardly, and that if any do sleepe under the shadow thereof, it causeth sicknes, and oftentimes death. Moreover, they say that the fruite thereof being eaten, is not onely dangerous unto man and deadly . . . All which I dare boldly affirme, is altogether untrue. For when I was yoong and went to schoole, divers of my schoole fellowes and likewise my selfe did eate our fils of the berries of this tree, and have not onely slept under the shadow thereof, but among the branches also, without any hurt at all, and that not one time, but many times. (G.1188).

Mushrooms

Prospero. . . . and you whose pastime
Is to make midnight mushrooms that reioice
To hear the solemn curfew. . . .
(*The Tempest*, V.i.38-40).

Gerarde says of "Mushrums" that "most of them do suffocate and strangle the eater" (G.1386). He quotes from Virgil's "first booke of Georgickes" a passage in translation about "up rotten Mushrums be growne" in the "night" (G.1387). Elsewhere he says that mushrooms are "venomous and deadly . . . [and] may procure untimely death" (G.274).

Other Deadly Poisons

Apothecary. Put this in any liquid thing you will,
And drink it off, and if you had the strength
Of twenty men, it would dispatch you straight.
(*Romeo and Juliet*, V.i.77-79).

Although there is no way with certainty to identify the poison which Romeo drinks, because the description is insufficient, there are several deadly poisons discussed by Gerarde in addition to those I've mentioned. Herbe Christopher or *Aconitum bacciferum* (*Actaea spicata*, *Osmunda regalis*), says Gerarde, is as "deadly and remedillesse" as Ratsbane (G.829). And the Ash tree, *Fraxinus* spp., "the shivers or small peeces thereof . . . being drunke, are saide to be pernicious and deadly" (G.1289).



"Not bad, as hallucinogenic mushrooms go."



*To my dear friend Dick Schultz, from Yando
California 1977*

Figure 77. A Healing Session. Ayahuasca visions of a shaman in Amazonian Peru. Drawn especially for this edition by the Peruvian artist Yando de Ríos (1977).



"I just had it backward, Fred. With this kind,
it's pink that's poisonous."



"I just had it backward, Fred. With this kind,
it's pink that's poisonous."

chun
day



*"Hello! What's this? 'Caution: Ingestion of This Mushroom
May Be Hazardous to Your Health.'"*



*"Don't ever go out in the woods to
hunt rare fungi with him, because that's exactly what you'll do!"*

SHAMBLES



"Harvest time!"



W Miller

*"I remember bedevillin' the bejusus out of a Milhous family
once, but that was long ago, in Skibbereen."*





"Oh, stop trembling! I've told you a hundred times it's not mushrooms you don't stand under, it's trees."

MS. 11. 750



"Excuse me, but I believe you're sitting on my tuffet."

THE GIRLS

By Franklin Folger



"Oh, meant to tell you, the chopped mushrooms in the cheese dip I found in that field next door—I GUESS they were mushrooms."



H. Martin

"For twenty-five cents, Madam, I'll check your basket for poisonous ones."

86

7. Getting down to cases, what would be your advice to such a lady concerning these local specimens. To eat or not to eat? You may as well give the genus and species too, to prove your professionalism. (If you object to the fee, see your local M.I.U. -- mushroom identifier's union)



*"Hello! What's this? 'Caution: Ingestion of This Mushroom
May Be Hazardous to Your Health.'"*



*"I just had it backward, Fred. With this kind,
it's pink that's poisonous."*

“Nathanael West’s magnificent novel is...an extraordinary epic of Hollywood in the halcyon ’30s, a fantasy world of contrasts...”

SCHLESINGER/Continued from page 33

But then Schlesinger, like all important film directors, is far from ordinary and it’s always full speed ahead. He’s a man who needs to stick his neck out on the chopping block again and again, and if it hasn’t yet rolled, it’s not for want of trying—and he’s had some pretty near misses.

After the great international success of *Darling*, Schlesinger could almost write his own ticket and he did with a big budget work of love, Thomas Hardy’s *Far from the Madding Crowd*. For all its visual beauty, *Crowd* wasn’t exactly *Gone with the Wind*, and its lack of success meant that the director had to start hustling all over again to get the firm backing and go-ahead for his next project, *Midnight Cowboy*. Against all the odds, *Cowboy* turned out to be what *Variety* would call box office “boffo”; and how.

It was free-hand-time again, and the success of *Cowboy* allowed Schlesinger to do his next picture, *Sunday, Bloody Sunday*, exactly the way he wanted. The result was one of the finest films of the last decade but the problem was that too many people, especially the boys back in the Hollywood control room, didn’t know what he was talking about, or if they did, they just didn’t want to know. “The distributors and salesmen absolutely hated the film, and that’s what killed it stone dead,” admits Schlesinger. “It was a situation they found morally offensive since there was no guilt involved. The fact that it was an honestly and openly observed picture about a way of life that we see around us every day was beside the point. They wanted guilt and shame and that was not what the movie was about.”

Universal critical acclaim aside, *Sunday* was hardly “buffo,” and once again Schlesinger found himself in the position of being slightly risky from a financial point of view. A couple of his pet projects were dropped—in particular the film version of *Hadrian VII*—and he found his ideas were being over-politely shuffled from studio to studio. It was really not the time to tackle something as complex and explosive as *The Day of the Locust*, so, true, to form, this is exactly what he did. Schlesinger excels at lateral thinking, which makes him almost unique in the movie business.

Nathanael West’s magnificent novel is one of the few genuine classics of 20th century American literature, an extraordinary epic of Hollywood in the halcyon ’30s, a fantasy world of contrasts that survived on dreams only to be destroyed when reality got in the way. West knew this world well—a writer of genius, he might have been, but he was a Hollywood failure and this, more than anything

else, really drove him to his early death—and portrayed it with brilliant accuracy and insight; yet in spite of this, if not because of it, his Hollywood novel has always been thought unfilmable by Hollywood itself. It’s taken a distinguished English director to set the record straight.

Taken at face value, there’s nothing so unusual about that, of course, since some of the best American films about aspects of America have recently come from foreign directors. Perhaps the fresh eye with a lack of preconceptions helps, but it took Englishmen John Boorman and Peter Yates to unravel contemporary San Francisco in *Point Blank* and *Bullitt*, Schlesinger himself to dig beneath the glitter of Manhattan in *Cowboy*, Boorman again to take the romance out of the backwoods of Georgia in *Deliverance*, Karel Riesz to strip Vegas in *The Gambler*, Milos Foreman to deglamorize the cult of youth in *Gettin’ Straight*, and, of course, Roman Polanski’s *Chinatown* is the best film about Los Angeles in the last 30 years.

Nobody’s taken a good look at Hollywood since Billy Wilder (a Central European) took his stroll down *Sunset Boulevard* 25 years

ago, and exactly what the reaction will be to Schlesinger’s brutal explosion of the star-struck glamor myth is anybody’s guess. The most concerned party, the director himself, honestly admits that he doesn’t know if he’s going to be praised or slaughtered both by the critics and the box office. “It’s a highly controversial and inflammatory film, and I suspect the old guard will loathe it—they can’t wait to jump all over me—but I’m gambling on a younger, more open-minded, imaginative audience.” Since a film must triple its production costs before it starts to show a profit, it’s a high gamble with the stakes running around the \$20 million mark.

Still, if anybody could transfer West’s vision of Hollywood on to the shimmering screen, Schlesinger probably is the best man. More than just a first-rate filmmaker, he’s an artist with a journalist’s instinct and an historian’s eye for capturing a mood in time and place and crystalizing it into one cohesive work. *A Kind of Loving* and *Billy Liar* were definitive mini-studies of life in the industrial North of England; *Darling* caught and in turn helped to create the empty myth of “Swinging London”; and *Cowboy* forever captured



“It’s an easy mistake to make...that’s one of our look alike.”



"At least he makes house calls."

JUEVES 20 DE JUNIO DE 1963

MEXICO, D. F.

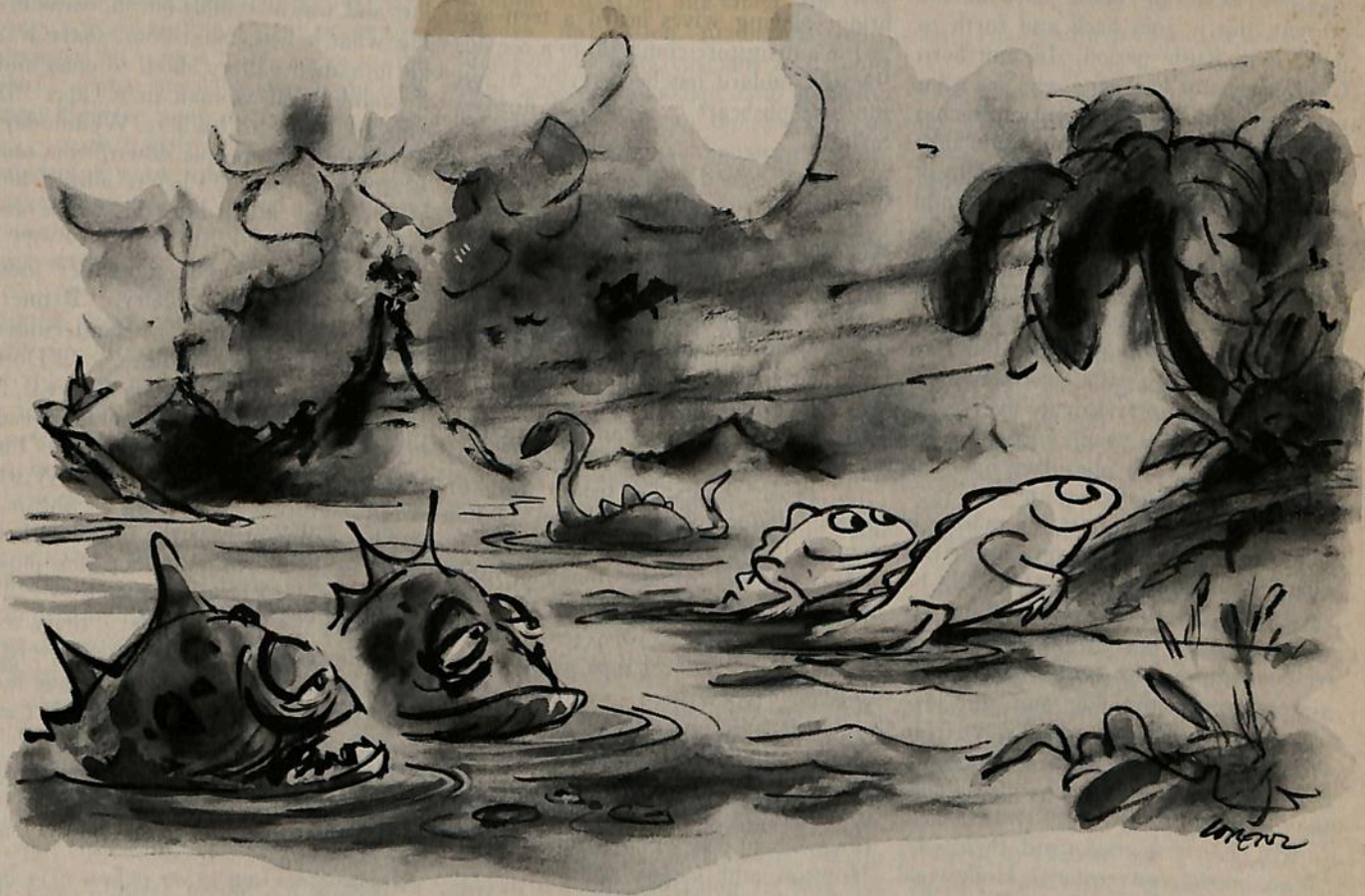
NOVEDADES
EL MEJOR DIARIO DE MEXICO

CARICATURA DE GUASP

HONGUEROS ALUCINADOS



—¡No les dieron tiempo ni de recoger la cosecha!



"Boy! I thought they'd never leave."



"Now, let's have it again, Pop. Which are the pistils and which are the stamens?"

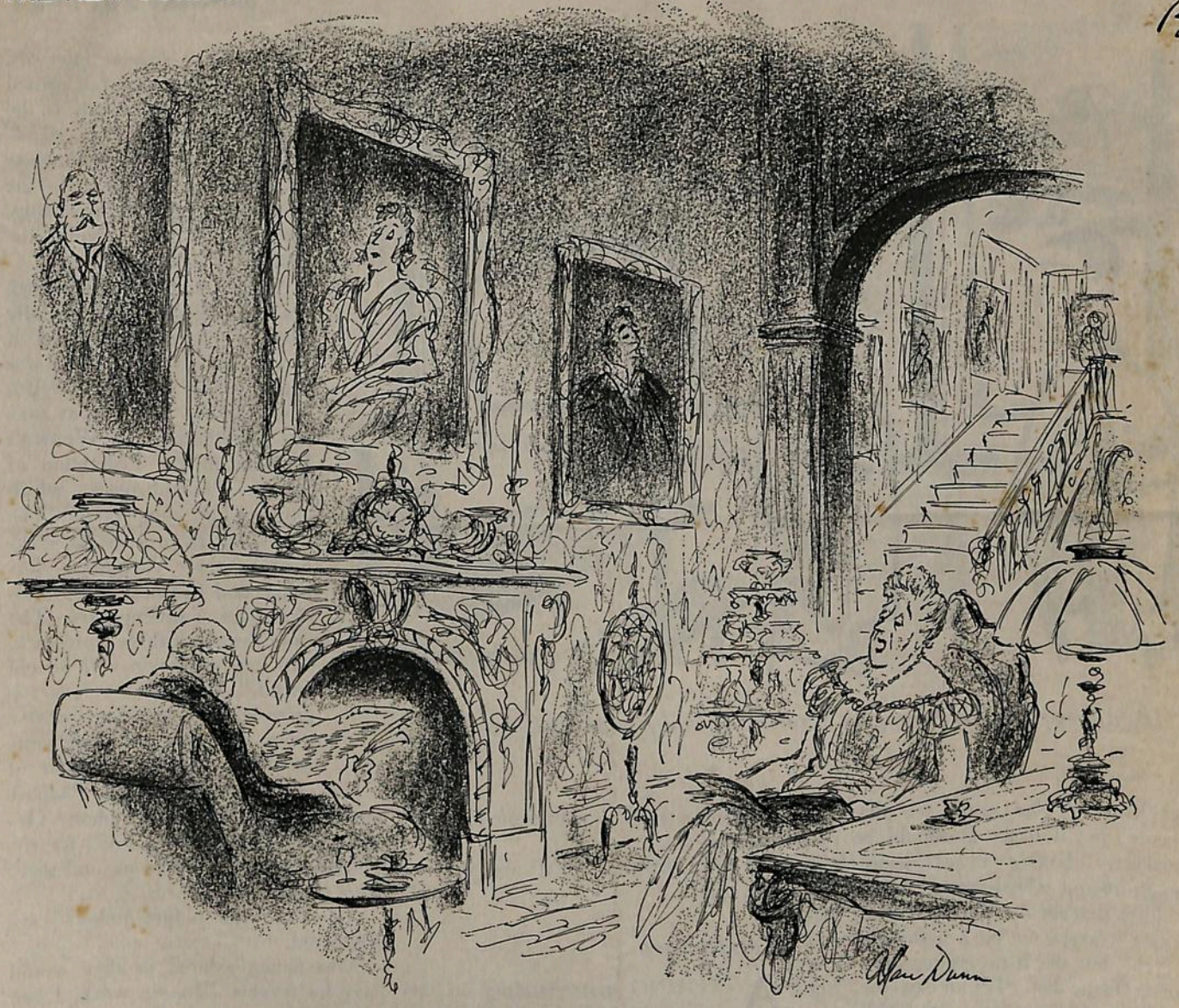
The New Yorker. Nov. 21, 1977.

67



Donald Rubin

“En garde! A nut!”



"Now that they've cracked the genetic code, I suppose everyone will want to be Peabodys."

LOUISIANA STATE UNIVERSITY

CAMPUS MAIL

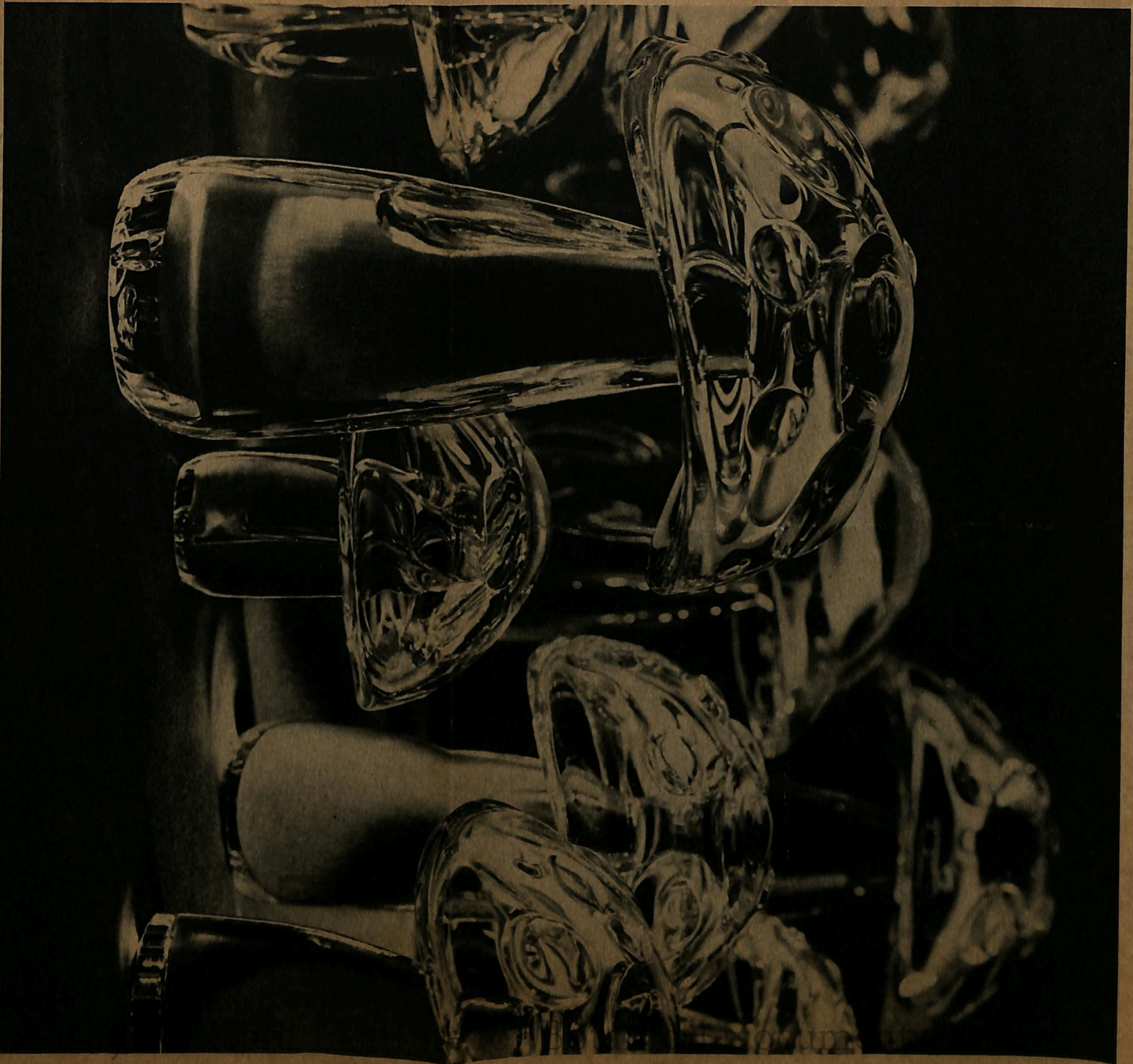
FROM OFFICE OF

MUSHROOMS AS
JEWELRY

FOR _____

DEPT _____

BUILDING _____



THE MUSHROOM FOREST: Crystal mushrooms with smooth or mottled caps • Each is fashioned by hand • No two are alike
Left to right in foreground: 8 1/2" high, \$210.00 • 4 1/4" high, \$90.00 • 6 1/2" high, \$160.00



STEUBEN GLASS

715 FIFTH AVENUE • NEW YORK • N. Y. 10022 • (212) PL 2-1441



Sculptured crystal on a stand of stainless steel • Designed by Paul Schulze • 9" high • 12¼" wide • Limited edition • \$9,500.00

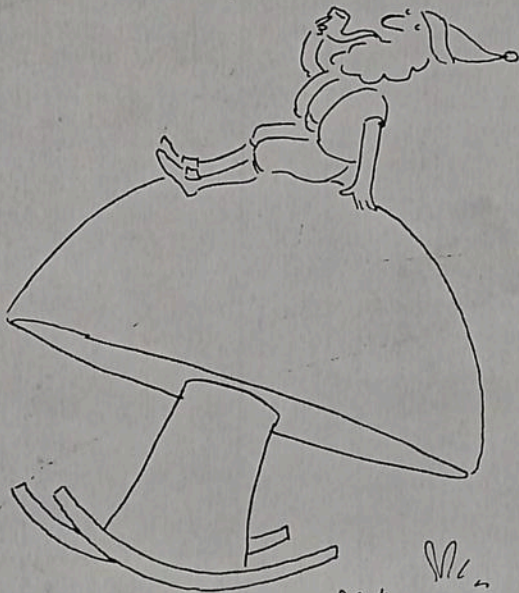
Digitized by the Hunt Institute for Botanical Documentation

in her parodic woman's way—I assume the filmmakers to be making a point here—by a Communist named Michel Boutros, who is played with glinting mind by Victor Lanoux. The film has a certain amount of picture-postcard stuff of Delphi and Epidaurus, but the dialogue—by Jorge Semprun, the Spanish novelist and poet who wrote, among other scripts, “The Confession” and “77” for Costa-Gavras and “La Guerre Est Finie” for Resnais—has stature enough to match the landscape. One doesn't often hear political talk of this sort in a movie. We might be wandering in the agora at dusk discussing the possibility of democracy, except that everyone knows that this is 1936 and that we are soon to be in an unlit world darker than any night that has ever dropped.

This is no primitive left-wing tract. Boutros, the political militant, thinks that it is as insane to love the Parthenon as to love a dead woman, but the reason is partly that life has gone stale on his tongue, like the taste of

meny, Zimoviev, others. What if they're guilty? Well, what is guilt? The implication in the talk is that revolution requires guilt, and on both sides—that Stalin required the guilt of absolute power in the same way as the tyrants in Sophocles and Shakespeare. But where, says Boutros in effect, did a small, rich middle class win its right to impose an orderly, tolerant culture on a

THE NEW YORKER July 3, 1972

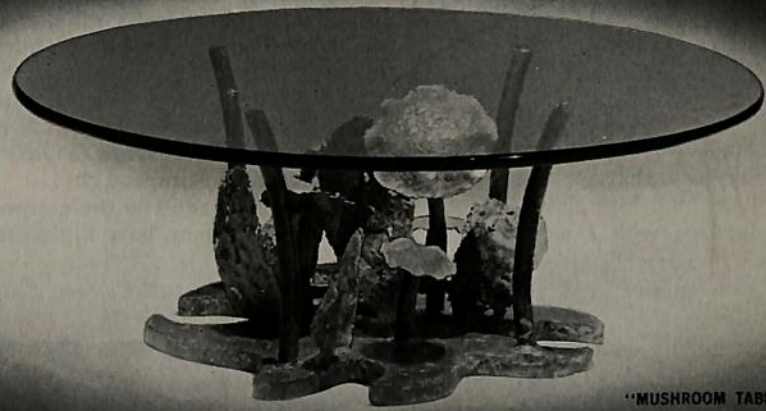


vice of a Mata Hari to help the left-wing Boutros, whom she has now fallen in love with: she exploits for him her grace, her title (she is a marchesa), her husband's friends, to go with him in the guise of a tourist to Corfu and then to Ragusa to slip the knot closing around him. The staid industrialist, who is almost the husband figure in the story, sees his affair with

her disappearing as if he were watching a boat leaving the shore. Thirty years later, long after Margot has disappeared, there is a “surprise” ending: an ending entirely necessary, life on course.

No doubt this film will be promoted as a love duel between two men for the heart of a great beauty. It is something much more unusual than that, and something we are more than ready for: a sophisticated picture about war, politics, power plays, people with a contemplative turn of mind. It is also about cause and effect, and the blind eye that most of us choose to turn to them. There are splendid ironic scenes of golf matches and champagne-drinking and

seandel- UNDER GLASS



"MUSHROOM TABLE"

NEW YORKER
FEB. 21, 1970

■ Sculptured Cocktail Table, by Silas Seandel. Hand cast and carved in brass, bronze and steel. Limited edition. Signed and registered by the Artist. Shown with a 42" round glass. On view at the Silas Seandel Gallery, 979 Third Ave. (at 58th St.) NYC. Gallery Hours: 10 to 5 Monday thru Friday. (212) 226-0435

SCULPTURE FOR ARCHITECTURE / INTERIORS



silas seandel

Write for brochure.

SEMINAR IN MORPHOLOGY, ZOOL. 7942

D. G. Homberger

"The origin and evolution of terrestrial vertebrates"

Tuesdays, 8:30 p.m., Williams 215

~~First informational meeting: Friday, 23. January 1981; 12:30 a.m.
(to set the schedule)~~

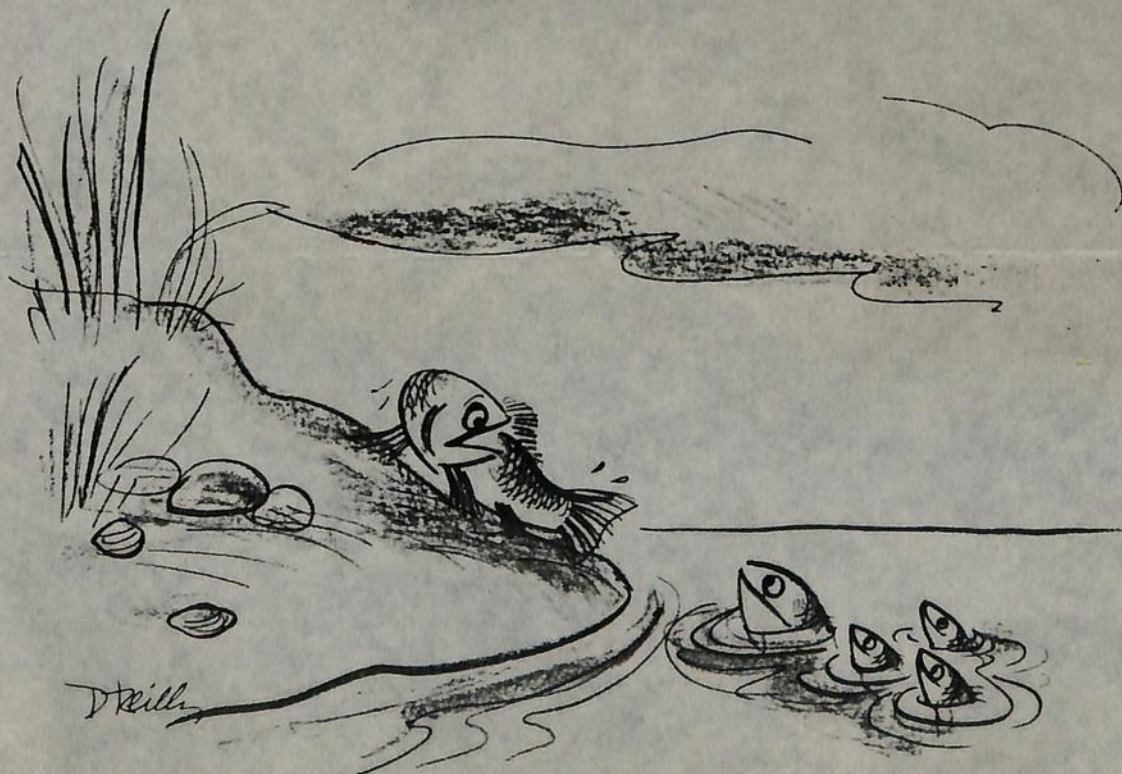
The seminar will emphasize the anatomical, functional and physiological changes which took place during the evolution of land vertebrates from their piscine ancestors.

The topics will include:

- Climatic Conditions in the Devonian and Carboniferous
- Reasons for emergence of fishes into aerial medium
- Evolution of skull
- Evolution of locomotory apparatus
- Evolution of lungs
- Evolution of circulatory system
- Evolution of sensory organs
- Evolution of digestive system, etc.

Readings will be from books and journals in the library and from reprints from the personal file of D. G. Homberger.

This seminar could be of interest to students with an interest in vertebrate anatomy, physiology and evolution.



"As soon as I get established, I'll send for you."

Feb. 11, 1981

Thank you so much for
the very nice cartoon!
Please feel free to drop
by our seminar whenever you
feel like.

Samirique Hamburger

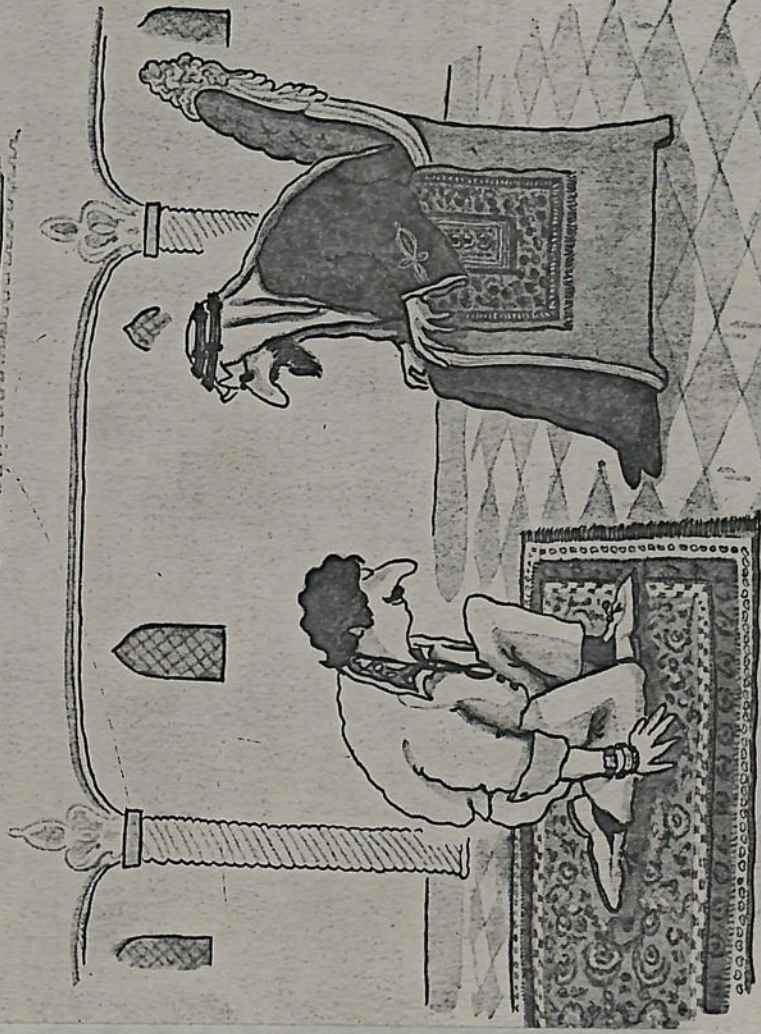
Urban mycology

Not so easily pulled up as weeds, it's true—
Still, they're springing up like mushrooms, here, there and everywhere
More or less at random. Anyway,
That's the way it looks to me.
You remember that old beanstalk story in the fairy-tale?
It's much like that here.
One looks out the window
At what was a depression over which, like so much wash on a line,
Hung patches of blue sky,
And someone has overnight quartered the sun like an orange.

A vast stone trunk has spurted towards the clouds
Up which dexterously run little men on spider-webs of rope,
Their orange antennae
Feeling for direction.
Creatures of insect scale scuttle about
Between the stems in a meadow of wandering stone mushrooms
Which have taken root—
Not in orderly fashion as one plants a garden
But carelessly, in colonies or single lonely humps,
As the wind sows.

There seems no rhyme nor reason to it—just
An odd impulse of the ground to spurt stone.
In fact, if I may say so, I would be a little cautious
Of exactly that place you happen to be standing on now—
Nothing definite, you understand. Just that I detected
Or thought I detected
A slight rumble, a barely perceptible crack, an earthy rumor
Like that which precedes the tentative thrusting forth of a groping iron
tendrill
Probing the hospitality of air—
If I were you, I would move.

FRANCES MINTURN HOWARD



(FO CULUM

"You have purchased Los Angeles, my son. This is good."