

8

The Role of Hallucinogenic

Plants in European Witchcraft

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A prevalent attitude among present-day historians and scholars of religion (e.g., Henningsen, 1969: 105-6; Trevor-Roper, 19~: 90, 192) is that late medieval and Renaissance witchcraft was essentially a fiction created by the Church. Those taking this position often argue that the Inquisition had an *a priori* conception of witchcraft and simply tortured accused persons until they gave the "right" answers in terms of Church dogma. To support their position, they point out that many of the things witches confessed to doing, such as flying through the air and engaging in orgies with demons at Sabbats, were patently impossible.

The position of such scholars is not contravened by accounts of the rituals practiced by persons organized into formal witchcraft covens in Europe and the United States today. Such "witches" engage in what they think are traditional practices, but insofar as I have been able to discover through interviews, do not believe that they fly through the air nor frolic with super natural creatures at Sabbats. Instead, their activities tend to be sober and highly ritualistic. Academicians as well as present-day coven participants

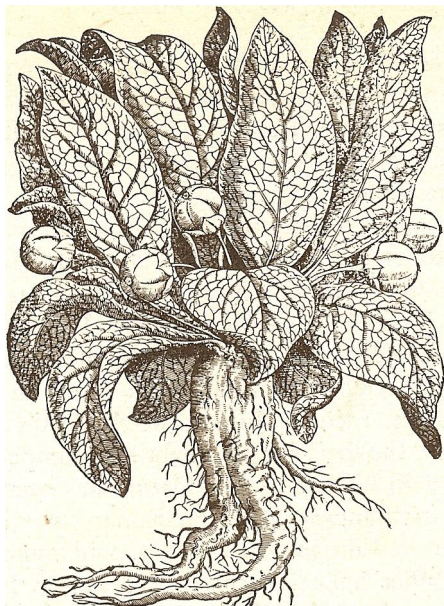
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Deadly nightshade (*Atropa belladonna*)



Henbane (*Hyoscyamus*)



Mandrake (*Mandragora*)



Thorn apple (*Datura*)

have generally failed to comprehend the great importance of hallucinogenic plants in the European witchcraft of former times.¹ Yet once the use and the effects of these natural hallucinogens are understood, the major features of past beliefs and practices suddenly seem quite logical and consistent.

Probably the single most important group of plants used by mankind to contact the supernatural belongs to the order Solanaceae (the potato family). Hallucinogenic members of this group are widespread in both the Old and New Worlds. Besides the potato, tomato, chile pepper, and tobacco, the family includes a great number of species of the genus *Datura*, which are called by a variety of names, such as Jimson weed, devil's apple, thorn apple, mad apple, the devil's weed, Gabriel's trumpet, and angel's trumpet, and are all hallucinogenic. *Datura* has been used widely and apparently from ancient times in shamanism, witchcraft, and the vision quest in Europe, Asia, Africa, and among American Indian tribes. Other hallucinogens in the potato family closely resembling *Datura* in their effects include mandrake (*Mandragora*), henbane (*Hyoscyamus*), and belladonna, or deadly nightshade (*Atropa belladonna*). Plants of this group are found in both temperate and tropical climates, and on all continents.

Each of these plants contains varying quantities of atropine and the other closely related tropane alkaloids hyoscyamine and scopolamine, all of which have hallucinogenic effects (Claus and Tyler, 1965: 273-85; Henry, 1949: 64-92; Hoffer and Osmund, 1967: 525-28; Lewin, 1964: 129-40; Sollinann, 1957: 381---<8). These alkaloids can be extremely dangerous in their mental and physical effects, and their toxicity can result in death.

One outstanding feature of atropine is that it is absorbable even by the intact skin; and it has not been unusual in medicine to observe toxic effects produced by belladonna plasters (Sollmann, 1957: 392). This potential of atropine-containing solanaceous

1. An important and essentially ignored exception was the distinguished nineteenth-century anthropologist Edward B. Tylor (1924 [orig. 1871]: vol. 2:418), who proposed: "... the mediaeval witch-ointments ... brought visionary beings into the presence of the patient, transported him to the witches' sabbath, enabled him to turn into a beast." More recent exceptions include Barnett (1965) as well as Baroja (1964:255), the latter acknowledging that the effects of such ointments were of fundamental importance, at least with regard to the witches' flight.

plants has long been known to man, both in the Old and New Worlds, and it is of considerable significance for the study of shamanism and witchcraft.

As is familiar to every child in our culture, the witch is fantasized as flying through the air on a broomstick. This symbol actually represents a very serious and central aspect of European witchcraft, involving the use of solanaceous hallucinogenic plants. The European witches rubbed their bodies with a hallucinogenic ointment containing such plants as *Atropa belladonna*, *Mandragora*, and henbane, whose content of atropine was absorbable through the skin. The witch then indeed took a "trip": the witch on the broomstick is a representation of that imagined aerial journey to a rendezvous with spirits or demons, which was called a Sabbat.

Lewin (1964 [orig. 1924]: 129-30), the famous pharmacologist, writes:

We find these plants associated with incomprehensible acts on the parts of fanatics . . . Magic ointments or witches' philtres procured for some reason and applied with or without intention produced effects which the subjects themselves believed in, even stating that they had intercourse with evil spirits, had been on the Brocken and danced at the Sabbat with their lovers, or caused damage to others by witchcraft. The mental disorder caused by substances of this kind, for instance *Datura*, has even instigated some persons to accuse themselves before a tribunal. The peculiar hallucinations evoked by the drug had been so powerfully transmitted from the subconscious mind to consciousness that mentally uncultivated persons . . . believed them to be reality.

Hesse (1946: 103) writes in 'I similar vein of admixtures to witches' brew, love potions, and narcotics: "The hallucinations are frequently dominated by the erotic moment In those days, in order to experience these sensations, young and old women would rub their bodies with the 'witches' salve,' of which the active ingredient was belladonna or an extract of some other solanaceae."

The Inquisition, at the cost of the torture and execution of perhaps hundreds of thousands of believed and real witches, has

supplied the bulk of our data on the role of hallucinogenic plants in late medieval Europe. From the variety of sources, only some of which are cited here, it is clear that we are dealing with practices that were widespread throughout Europe and apparently known at least as early as Roman times.

Margaret Murray is among the first modern scholars, after Tylor, to touch upon the possible importance of the "flying ointment" in European witchcraft. She notes (Murray, 1962 [orig. 1921]: 101-2) that the Somerset witches in 1664 used a "greenish" oil in transporting themselves to their meetings. Murray, following Glanvil (1681), (p. 304) observes:

Elizabeth Style said:

"Before they are carried to their meetings, they anoint their Foreheads and Hand-wrists with an Oyl the Spirit brings them (which smells raw) and then they are carried in a very short time, using these words as they pass, *Thout, tout a tout, tout, throughout and about*. And when they go off from their Meetings, they say, *Rentum, Tormentum* ... all are carried to their several homes in a short space." Alice Duke gave the same testimony, noting besides that the oil was greenish in colour. Ann Bishop, the Officer of the Somerset covens, confessed that "her Forehead being first anointed with a Feather dipt in Oyl, she hath been suddenly carried to t^he place of their meeting . . . After all was ended, the Man in black vanished. The rest were of a sudden conveyed to their homes."

Another case of the use of an ointment, three centuries earlier, is from an investigation by the authorities of Lady Alice Kyteler in 1324 (Murray, 1962 [orig. 1921]: 104, following Holinshed, 1587).

. . . in rifleing the closet of the' ladie, they found a Pipe of oyntment, wherewith she greased a staffe, upon the which she ambled and galloped through thick and thin, when and in what manner she listed.

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The fifteenth century yields a similar account of an anointed staff:

-But the vulgar believe, and the witches confess, that on certain days or nights they anoint a staff and ride on it to the ap-

pointed place or anoint themselves under the arms and in other hairy places and sometimes carry charms under the hair. [Bergamo, c. 1470-71, in Hansen, 1901: 199]

The use of a staff or broom was undoubtedly more than a symbolic Freudian act, serving as an applicator for the atropine-containing plant to the sensitive vaginal membranes as well as providing the suggestion of riding on a steed, a typical illusion of the witches' ride to the Sabbat.

In addition to brooms, pitchforks and apparently baskets and bowls served as "vehicles" for transport to the Sabbat:

Nicole Canette added that it was her custom, when she was preparing to start on that journey, to put one foot up into a basket after she had smeared it with the same ointment which she had used upon herself. Francis Fellet said that he used to place his left foot, not in a basket, but on the ends of the backward bent twigs of a broom which he first anointed. [Remy, 1596, Liber I, ch. xiv, p. 103]

Johannes Nider (1692, Liber II, Cap. 41) gives this account:

I shall . . . show how so many people are deceived in their sleep, that upon wakening they altogether believe that they have actually seen what has happened only in the inner part of the mind. I heard my teacher give this account: a certain priest of our order entered a village where he came upon a woman so out of her senses that she believed herself to be transported through the air during the night with Diana and other women. When he attempted to remove this heresy from her by means of wholesome discourse she steadfastly maintained her belief. The priest then asked her: "Allow me to be present when you depart on the next occasion." She answered: "I agree to it and you will observe my departure in the presence (if you wish) of suitable witnesses." Therefore, when the day for the departure arrived, which the old woman had previously determined, the priest showed up with trustworthy townsmen to convince this fanatic of her madness. The woman, having placed a large bowl, which was used for kneading dough, on top of a stool, stepped into the bowl and sat herself down. Then, rubbing ointment on herself to the accompaniment of magic incantations she lay her head back and immediately fell asleep. With the labor of the devil she dreamed of Mistress Venus and other superstitions so

vividly that, crying out with a shout and striking her hands about, she jarred the bowl in which she was sitting and, falling down from the stool seriously injured herself about the head. As she lay there awakened, the priest cried out to her that she had not moved: "For Heaven's sake, where are you? You were not with Diana and as will be attested by these present, you never left this bowl." Thus, by this act and by thoughtful exhortations he drew out this belief from her abominable soul.

Vincent (MS., c. 1475, *in* Hansen, 19^o1: 229, 230) also suggests the utilization of hallucinogens in order to be "carried" to the Sabbats:

The devil casts people into deep sleep, in which they dream that they have been to the Sabbat, adored the demon, caused lightnings and hail-storms, destroyed vineyards, and burnt alive children taken from their mothers.

The malefici have philtres and unguents with which they poison or make sick, and they also imagine themselves to be carried to the Sabbat by virtue of these.

Remy, in the late sixteenth century, provides the following additional information:

For they have heard the evidence of those who have smeared and rubbed themselves with the same ointment that witches use, and have in a moment been carried with them to the Sabbat; though in returning it was a journey of many days. [Remy, 01596, Liber I, Ch. xiv, p. 92]

Bertranda Barbier admitted that she had often done this; namely, in order to lull her husband into such a sleep, she had many times tweaked his ear after having with her right hand anointed it with the same ointment which she used upon herself when she sought the journey to th~ Sabbat. [Remy, 1596, Liber I, Ch. xii, p. 83]

Now if witches, after being aroused from an "iron" sleep, ten of things they have seen in places so far distant as compared with the short period of their sleep, the only conclusion is that there has been some unsubstantial journey, like that of the soul. [Remy, 1596, Liber I, Ch. xiv, p. 101]

Spina (1523, Cap. II, *in* it.) gives this unusually detailed account:

First, indeed, there should be adduced the thing that happened to the illustrious Prince N., within the lifetime of those who are now alive. A certain witch, who said that she had often been carried on the journey, was being held in the prison of some cleric Inquisitor. The Prince, hearing of this, desired to find out whether these claims were true or dreams. He summoned the Inquisitor D., and finally prevailed upon him to let the woman he brought forth and anoint herself with her usual ointment in their presence and in the presence of a multitude of nobles. When the Inquisitor had given his consent (even if in error), the witch asserted in their presence that, if she might anoint herself as before, she would go and be carried off by the Devil. Having anointed herself several times, however, she remained motionless; nor did anything extraordinary manage to happen to her. And many noble eye-witnesses of the matter survive to this very day. From this fact, it is obviously false that witches are carried on the ride as part of their pact; it is rather that when they think that they are so carried, it happens by a delusion of the Devil.

There are many other testimonies of this, and now it is my pleasure to adduce examples which are said to have happened in our own times. Dominus Augustinus de Turre, of Bergamo, the most cultivated physician of his time, told me a few years ago in his home at Bergamo, that when he was a youth at his studies in Padua, he returned home one night about midnight with his companions. He knocked, and when no one answered or opened the door, he climbed up a ladder and finally got into the house by a window. He went to look for the maid and finally found her lying in her room, supine upon the floor, stripped as if a corpse, and completely unconscious, so that he was in no way able to arouse her. When it was morning, and she had returned to her senses, he asked her what happened that night. She finally confessed that she had been carried on the journey; from which it is manifestly clear that they [witches] are deluded not bodily, but mentally or in dreams, in such a way that they imagine they are carried 'long distances while they remain immobile at home.

Something similar to this I was told to me at Saluzzo a few years ago by Dr. Petrus Cella, formerly vicar of the Marchese of Saluzzo and still living: like things had happened to his own maidservant, and likewise he had discovered that she was deluded.

But there is also a story commonly told among us, that at the time when the Inquisition in the diocese of Como was being car-

ried on by our people, in the walled city called Lugano, it happened that the wife of a notary of the Inquisition was accused by due process of law of being a witch and a sorceress. Her husband was exceedingly troubled at this, since he had thought her a holy woman. Then, through the will of the Lord, early on Good Friday; since he could not find his wife, he went to the pigsty. There he found her naked, in some corner, displaying her genitals, completely unconscious and smeared with the excrement of the pigs. Now then, made more certain of that which he had not been able to believe, he drew his sword in sudden wrath, wishing to kill her. Returning to himself, however, he stood waiting for a little while that he might see the outcome of all this. And 10, after a little while she returned to her senses. When she saw that her husband was threatening to kill her, she prostrated herself before him and, seeking pardon, promised that she would reveal the whole truth to him. So she confessed that she had gone that night on the journey, etc. Hearing these things, her husband left at once and made an accusation of her in the house of the Inquisitor, so that she might be given to the fire. She, however, though sought at once, was nowhere to be found. They think that she drowned herself in the lake above whose shore that area is situated.

A similar general statement is provided by Ciruelo in the early seventeenth century:

Witches, male and female, who have pact with the devil, anointing themselves with certain unguents and reciting certain words, are carried by night through the air to distant lands to do certain black magic. This illusion occurs in two ways. Sometimes the devil really carries them to other houses and places, and what they see and do and say there really happens as they report it. At other times they do not leave their houses, but the devil enters them and deprives them of sense—and they fall' as dead and cold. And he represents to their fancies that they go to other houses and places and do and see and say such and such things. But nothing of this is true, though they think it to be, and though they relate many things of what passes there. And while they are thus dead and cold they have no more feeling than a corpse and may be scourged and burnt; but after the time agreed upon with the devil he leaves them, their senses are liberated, they arise

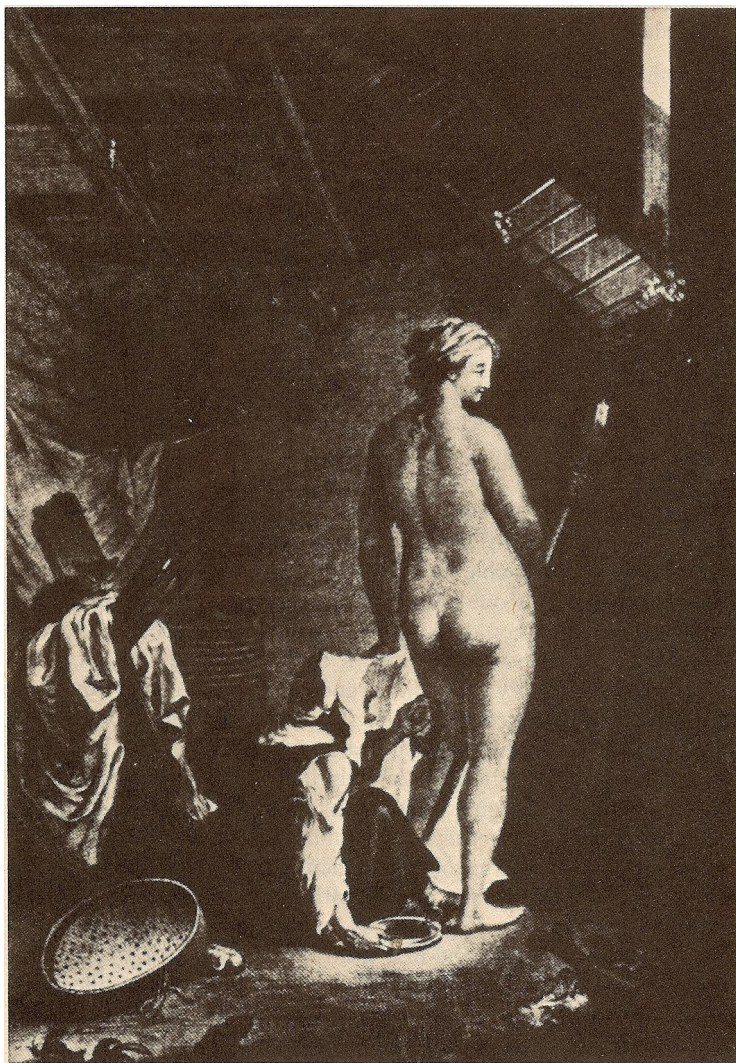
well and merry, relate what they have done and bring news from other lands. [Ciruelo, 1628, P. II, c. 1, N. 6, pp. 45-46]

The physician of Pope Julius III, Andres Laguna, gives a similar account. In 1545, while he was practicing in Lorraine, a married couple was seized as witches, being accused of burning grain, killing livestock, and sucking the blood of children. Under torture, they confessed their guilt. Laguna reports:

Among the other things found in the henn'tage of the said witches was a jar half-filled with a certain green unguent, like that of Popule6n [white poplar ointment], with which they were anointing themselves: whose odor was so heavy and offensive that it showed that it was composed of herbs cold [refers to the classification of medicines as "hot" and "cold"] and soporiferous in the ultimate degree, which are hemlock, nightshade, henbane and mandrake: of which unguent, by way of a constable who was my friend, I managed to obtain a good cannister-full. which I later, in the city of Metz, used to anoint from head to toe the wife of the hangman, who because of suspicions about her husband was totally unable to sleep, and tossed and turned almost half mad. And ~lis one seemed to be an appropriate subject on whom some tests could be made, since infinite other remedies had been tried in vain and since it appeared to me that it [the ointment] was highly appropriate and could not help but be useful, as one easily deduced from its odor and color. On being anointed, she suddenly slept such a profound sleep, with her eyes open like a rabbit (she also fittingly looked like a boiled hare), that I could not imagine how to wake her. By every means possible, with strong ligatures and rubbing her extremities, with afflsions of oil of costus-root and officinal spurge, with fumes and smoke in her nostrils, and finally with cupping-glasses, I so hurried her that at the end of thirty:six hours she regained her senses and memory: although the first tords she spoke were: "Why do you wake me at such an inopportune time? I was surrounded by all the pleasures and delights of the world." And casting her eyes on her husband (who was there ~lr stinking of hanged men), she said to him, smiling: "Knavish one, know that I have made you a cuckold, and with a lover younger and better than you," and she said many other and very strange things. .

From all this we can conjecture that all that which the

THE WITCHES' FLYING OINTMENT



Applying the' ointment, in an engraving entitled *Departure for the Sabat*.
The witch is astride her broomstick

...



Applying the ointment and the departure. In *The Witches' Kitchen*, Frans Francken's sixteenth-century painting of the demonic activities in a witches' kitchen, a young witch is rubbed down with flying ointment, and others disrobe for the same treatment (right). To the left, another witch flies up the chimney on her broomstick while other witches tend the cauldron amidst a muddle of demons.

wretched witches do is phantasm caused by very cold potions and unguents: which are of such a nature as to corrupt the memory and the imagination, that the wretched ones imagine, and even very firmly believe, that they have done in a waking state all that of which they dreamt while sleeping. [Laguna, 1555, IV, xxv, pp. 421-22 ↓ i']

Another example belonging here is due to Porta, a colleague of Galileo, who similarly suggested a physiological explanation of the witches' salve:

. although they [witches] themselves mix in a great deal of superstition, nevertheless it is apparent to the observer that these things result from a natural force. I shall repeat the things I have heard from them.

They take boys' fat and boil it in a copper vessel, then strain it; they then knead the residue. With it they mix eleoselinum, aconite [a deadly poison; see Murray, 1962: 279], poplar branches and soot. Or sometimes sium, common acofum, cinquefoil, the blood of a bat, sleep-inducing nightshade [*solanum somniferum*], and oil; and if they mix in other items, *they* differ somewhat from these. As soon as it is finished, they anoint the parts of the body, having rubbed them very thoroughly before, so that they grow rosy, and heat returns, and that which was stiff with cold becomes penetrable. So that the flesh may be loose and the pores open, they add, moreover, fat or, alternately, flowing oil that the force of the juices may descend inward, and be more powerful and lively. I think it not at all questionable that this is the reason.

Thus, on some moonlit night th~y think that they are carried off to banquets, music, dances, and coupling with young men, which they desire most of all. So great is the force of the imagination and the appearance of the images, that the part of the brain called memory is almost full of this sort of thing; and since they themselves, by inclination of nature, are extremely prone to belief, they take hold of the images in such a way that the mind itself is changed and thinks of nothing else day or night. They are strengthened in this by their eating nothing but beets, roots, chestnuts, and vegetables.

While I was working on this matter, searching out everything most diligently-for I was still in a state of ambivalent judgment-an old woman came to my notice ([one of those] whom they call screech-owls [*striges*], from the resemblance between the night-owl [*strix*] and the witch~ [*strigae*], and who suck the blood of tiny children in their cradles); who promised of her own accord to bring me answers in a short while. She ordered all of us who were gathered there with m~"as witnesses to go outside. Then she stripped off all her rags and rubbed herself very thoroughly and heartily with some ointment (she was visible to us through the cracks of the door). Then she sank down from the force of the soporific juices and fell into a deep sleep. We then opened the doors and gave her quite a flogging; the force of her stupor was so great that it had taken away her senses. We re-

turned to our place outside. Then the pow~rs of the drug grew weak and feeble and she, called from her sleep, began to babble that she had crossed seas and mountains to fetch these false answers. We denied; she insisted; we showed her the black-and-blue marks; she insisted more tenaciously than before.

What, then, shall I think of th~se affairs? There will be place enough to tell of other witches; let our discussion return for the moment to its proper arrangement; we have been sufficiently loquacious. This, moreover, I think should be pointed out, lest those who experiment grow ~iscouraged: these things do not turn out the same for all people. As for example, for melancholics, since their nature is chill and cold nothing very much happens to them from the warming-up methods of the witches. . . . [Porta, 1562, II, xxvii, pp. 197-98]

Twentieth-Century Comparative Data

Shortly before the turn of the present century, a German scholar of the occult, Karl Kiesewetter ([1902?J: 579), inspired by the accounts of Porta and others, made a sample of the witches' ointment. After rubbing himself with it, he experienced a dream in which he was flying in spirals. More recently, Professor Will-Erich Peukert of Gottingen, Germany, is reported to have made a flying ointment of belladonna, henbane, and *Datura*, employing a seventeenth-century formula. According to the report he:

. . . rubbed it on his forehead and armpits and had colleagues do the same. They fell into a twenty-four hour sleep in which they dreamed of wild rides, frenzied dancing, and other weird adventures of the type connected with medieval orgies. [Krieg, 1966: 53]

Gustav Schenk has also experimented with henbane, although not in the form of an ointment~ He reports that after inhaling the smoke of the burning seeds:

My teeth were clenched, and a dizzy rage took possession of me. I know that I trembled with horror; but I also know that I was permeated by a peculiar sens~'of wellbeing connected with the crazy sensation that my feet were growing lighter, expanding and breaking loose from my body. (This sensation of gradual body c;lissolution is typical of henbane poisoning.) Each part of my body seemed to be going off on its own. My head was growing independently larger, and I was seized with the fear that I was'

falling apart. At the same time I experienced an intoxicating sensation of flying.

The frightening certainty that my end was near through the dissolution of my body was counterbalanced by an animal joy in flight. I soared where my hallucinations—the clouds, the lowering sky, herds of beasts, falling leaves which were quite unlike any ordinary leaves, billowing streamers of steam and rivers of molten metal—were swirling along. [Schenk, 1955: 48]

Some years ago I ran across a reference to the use of a *Datura* ointment by the Yaqui Indians of northern Mexico, reportedly rubbed on the stomach "to see visions." I called this to the attention of my colleague and friend Carlos Castaneda, who was studying under a Yaqui shaman, and asked him to find out if the Yaqui used the ointment for flying and to determine its effects.

I quote from his subsequent experience with the ointment of *Datura*, which provides impressive evidence for its impact:

The motion of my body was slow and shaky; it was more like a tremor forward and up. I looked down and saw don Juan sitting below me, way below me. The momentum carried me forward one more step, which was even more elastic and longer than the preceding one. And from there I soared. I remember coming down once; then I pushed up with both feet, sprang backward, and glided on my back. I saw the dark sky above me, and the clouds going by me. I jerked my body so I could look down. I saw the dark mass of the mountains. My speed was extraordinary. My arms were fixed, folded against my sides. My head was the directional unit. If I kept it bent backward I made vertical circles. I changed directions by turning my head to the side. I enjoyed such freedom and swiftness as I had never known before. The marvelous darkness gave me a feeling of sadness, of longing, perhaps. It was as if I had found a place where I belonged—the darkness of night. [Castaneda, 1968: 91]

Lycanthropy

Now let us turn to lycanthropy, the belief that a human can change himself into a wolf or similar predatory animal. The possibility that hallucinogens may have been involved in such beliefs occurred to me after reading an account of a psychiatrist colleague

who administered harmaline to a subject who afterwards reported that he first believed he was a bird flying through the air, then a fish, then in his own words (see Naranjo in this volume, p. 185):

I wasn't a fish anymore, but a big cat, a tiger. I walked, though, feeling the same freedom I had experienced as a bird and a fish, freedom of movement, flexibility, grace. I moved as a tiger in the jungle, joyously, feeling the ground under my feet, feeling my power; my chest grew larger. I then approached an animal, any animal. I only saw its neck, and then experienced what a tiger feels when looking at its prey.

The neck which the subject referred *td* was that of a woman in the room who had appeared to him to have changed' into a deer, and the subject had to be restrained from attempting to bite her neck.

This information, together with random accounts of shape changing reported by persons having LSD experiences in our culture, caused me to review the werewolf literature to see if there might be a connection with hallucinogen use.² The following examples illustrate some of the results.

A Greek account, by Paulus Aegineta, of lycanthropy from the fourth or seventh century A.D. is as follows (Adams, 1844: 1:389-<),0) :

Those labouring under lycanthropia go out during the night imitating wolves in all things and lingering about sepulchres until morning. You may recognize such persons by these marks: they are pale, their vision feeble, their eyes dry, tongue very dry, and the flow of the saliva stopped; but they are thirsty, and their legs have incurable ulcerations from frequent falls. Such are the marks of the disease.

The symptoms described closely resemble those reported for the clinical effects of atropine, specifically, dryness of the throat and mouth, difficulty in swallowing, great thirst, impaired vision, and staggering gait (Sollmann, 1957: 392). It is interesting to

2. A most useful survey of the European werewolf literature is provided by Summers (1966). While the Reverend Mr. Summers recognizes that the ointments had a role both in witchcraft and lycanthropy (p. xiv), he seems quite seriously to assign a role of at least equal importance to the "force" of the "diabolic pact" presumably made by the practitioner and to his "impious spells" (p. 123).

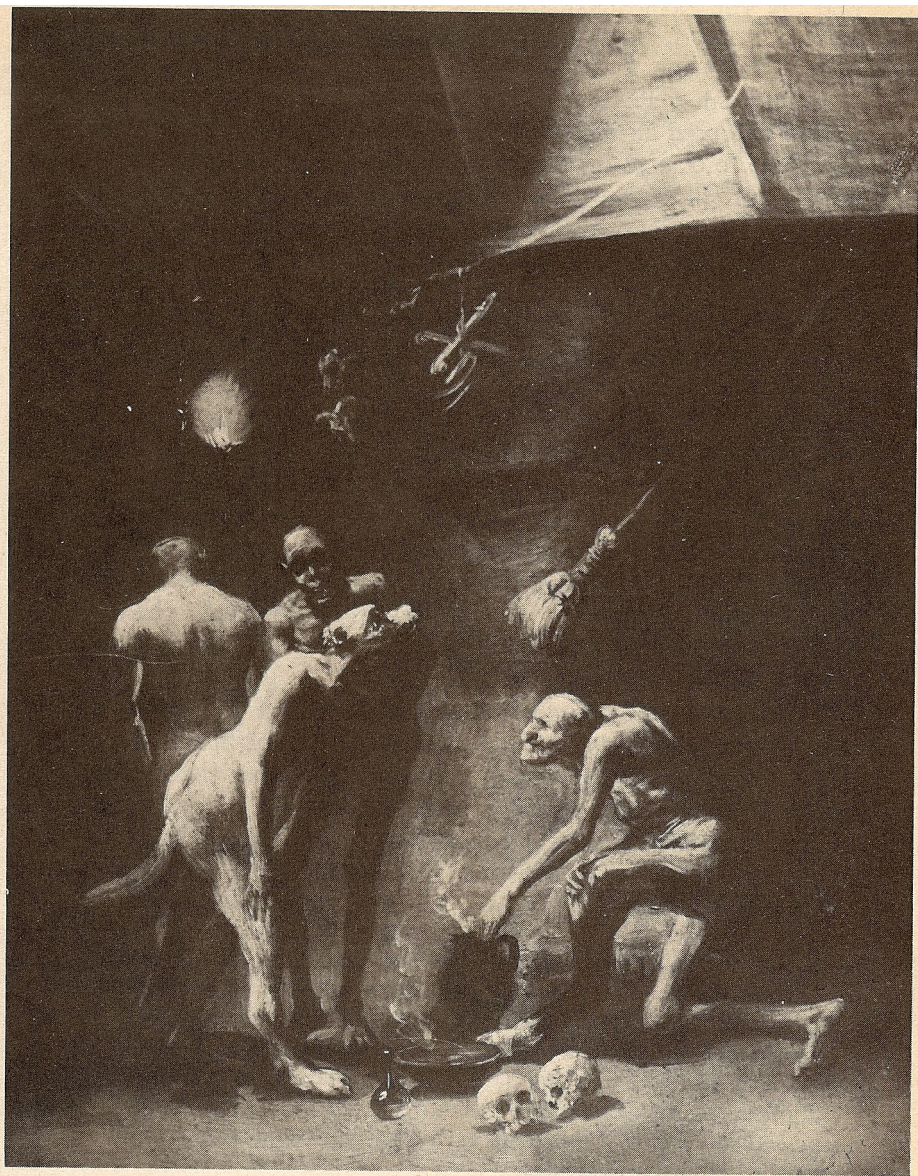
THE TRANSFORMATION OF WITCHES INTO ANIMAL FORMS



Three witches in animal forms flying on a pitchfork, from a fifteenth-century woodcut

observe also that Hesse (1946: 103-4) notes: "A characteristic feature of solanaceae psychosis is furthermore that the intoxicated person imagines himself to have been changed into some animal, and the hallucinosis is completed by the sensation of the growing feathers and hair, due probably to main paraethetic."

Porta (1658 [orig. 1589J: 219) states that "To make a man believe he was changed into a Biri or Beast" a potion was drunk which was made from henbane, mandrake, stramonium or Solanum manicum, and belladonna. Under its effects, "the man would seem sometimes to be changed into a fish; and flinging out his arms, would swim on the GroJnd: sometimes he would seem to skip up, and then to dive down again. Another would believe himself turned into a Goose, and would eat Grass, and beat the Ground with his Teeth, like a Goose: now and then sing, arid endeavor to clap his Wings."



In Goya's *Cocina de las brujas* (Witches' Kitchen), the witches are in various stages of transformation. One of the creatures, apparently a wolf, watches a cloven-hoofed beast, probably a he-goat, rise up the chimney

In a confession made before an inquisitor of the Church in 1521 in France, Pierre Bourgot admitted that he and a companion had used an ointment whose effect, when rubbed on the body, was to change them into wolves for one or two hours, and that in this state they physically attacked a number of persons on various occasions, biting them with their teeth, killing them and even eating parts of their bodies (Wier, 1885 [orig. 1660]: 263-67) .

In 1599 Chauvin court published in Paris a discourse on lycanthropy in which he concluded that such changes were illusory and produced by "unguents, powders, potiohS, and noxious herbs, which are able to dazzle all who come under their baleful and magic influence" (Chauvincourt, 1599).

A somewhat similar position was taken by Nynald shortly thereafter in his work, *De la lycanthropie, transformation, et extase des sorciers*, in which he also listed the ingredients of the ointments used. Among them were belladonna and henbane, as well as aconite, opium, and hashish (Nynald, 1615: ch. ii). He asserted that "all shape-shifting is mere hallucination" (Nynald, 1615: ch. vii).

It was sometimes recorded that a girdle made of the pelt of a wolf was used in addition to the ointment. "Peter Stump, who was executed for werwolfism in 1590, confessed that the demon has bestowed a girdle upon him, with which he girt himself when the lust came upon him to shift his shape to a wolf" (Elich, 1607: 155) .

Verstegan (1634: 237) reports:

The Were-Wolues are certaine Sorcerers, who having annoynted their bodies, with an Oymptment which they make by the instinct of the Divell: And putting on a certayne Inchaunted Girdle, doe not onely unto the view of others, seeme as Wolues, but to their owne thinking have both the Shape, and Nature of Wolues, so long as they weare the sayd girdle: And they doe dispose themselves as very Wolues, i~ wourrying, and killing, and most of Humane Creatures.

Boguet (1929 [orig. 1602]: 150), similarly reports the use of an ointment in combination with a wolf skin:

The confessions of Jacques Boequet, Françoise Secretain, Clauda Jamquillaume, Clauda Jamprost, Thievenne Paget, Pierre Gandillon and George Gandillon are very relevant to our argument, for they said that, in order to turn themselves into wolves, they first rubbed themselves with an ointment, and then Satan clothed them in a wolf's skin which completely covered them, and that they then went on all-fours and ran about the country chasing now a person and now an animal to the guidance of their appetite.

Del Rio (1606, Liber II, quaestrio xviii, pp. 455-56) states:

At times he [the demon] fastens most closely the real skin of a beast around their [the sorcerers'] bodies: that this is done, since the wolf-skin that he furnishes is concealed in the hollow trunk of a tree, is supported by the confessions of certain witnesses.

Boguet (1929 [orig. 1602]: 151) is clearly of the view that the use of the ointment was essential to the werewolf experience:

In company with the Lord Claude Meynier, our Recorder, I have seen those I have named go on all-fours in a room just as they did when they were in the fields; but they said that it was impossible for them to turn themselves into wolves, since they had no more ointment, and they had lost the power of doing so by being imprisoned.

He also indicates that the same ointment was used both for going to the Sabbat and for becoming werewolves (Boguet, 1929 [orig. 1602]: 69): "The witches anoint themselves with it [ointment] when they go to the Sabbat, or when they change into wolves."

It appears, then, that a solanaceous plant ointment was used both in experiencing the witches' flight and the metamorphosis into werewolf. The differing results can easily be explained from what we know of modern experiences with hallucinogenic drugs. That is, the expectations and desires of the subject and the cues in his immediate environment strongly affect the nature of his experience. We can see how the use of the broomstick or other straddling device, or the use of a wolf skin or wolf skin girdle, might be, through their tactile impact on the subject, powerful suggestive devices influencing the nature of the hallucination.

Finally, I wish to note one of the major characteristics of medieval and Renaissance witchcraft in Europe which helps distinguish it from ordinary shamanism. This is the fact that the witches performed their acts of bewitching and of mutual aid while *not* in a trance, but as part of a ritual meeting called the Esbat which has been described as a "business" meeting. This was a real gathering not connected with the use of the hallucinogenic ointment and was clearly distinguished both in name and substance from the Sabbat or Sabbath to which one flew and where one participated in orgiastic encounters with demons. In other words, unlike classical shamans, the sorcerer in Europe had his trance encounters with the spirit world on occasions distinguished from his *manipulation* of that supernatural world. I believe the reason for this major distinguishing feature of European witchcraft lies in the nature of the drugs they were using. Specifically, the solanaceous hallucinogens are so powerful that it is essentially impossible for the user to control his mind and body sufficiently to perform ritual activity at the same time. In addition, the state of extended sleep following the period of initial excitation, sleep which can extend for three or four days, together with the typical amnesia, made this hardly a convenient method for daily practice of witchcraft. Furthermore, there is some ethnographic evidence that too frequent use of the solanaceous drugs can permanently derange the mind.

I arrived at this particular insight about the problems of using solanaceous plants in shamanism and witchcraft during my fieldwork among the Jivaro Indians (*untsuri Suara*) of eastern Ecuador, who use both the solanaceous plant, *Datura*, and non-solanaceous hallucinogens. They utilize the solanaceous plant in the vision quest, simply to encounter the supernatural, but do not use it in shamanism because it is "too strong," and prevents the shaman from being able to operate in both worlds simultaneously. The European witches, in my opinion, had an entirely reasonable ritual system of using the solanaceous plants, given their great effects. Thus, the fact that traditional European witchcraft involves the separation of trance states from ritual operations may be largely due to the problems of coping with the particular hallucinogens they used. This would explain the peculiar existence of both Sab-

bats and Esbats in European witchcraft, and also raises the question of whether shamans have to be in a trance state at the same time that they are engaged in their manipulative activities. If not, it may be necessary to revise our conceptions of the scope of shamanism and to extend it to include some of the central aspects of witchcraft as it was formerly practiced in Europe. ' 1

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