

SACRED PLANTS OF THE SAN PEDRO CULT

E. WADE DAVIS

The high northern Andean valley of Huancabamba, Peru, is the centre of an extraordinary moon-oriented magico-religious healing cult, a fundamental feature of which is the nocturnal ingestion by patients and curandero of the mescaline-rich San Pedro cactus (*Trichocereus Pachanoi* Britton et Rose). Such is the notariety of the curanderos, or *maestros*, of Huancabamba that patients regularly arrive not only from the Peruvian coastal cities and the scattered settlements of the Maroñon river drainage area to the east, but from as far away as Argentina, Chile, Colombia and Ecuador.

The healing process at Huancabamba involves two equally important phases. During the first, the *maestro*, under the influence of the San Pedro, divines the cause of the patient's predicament and prescribes a cure. The adherents of the cult believe that all of life's vicissitudes result from supernatural causes; hence commonly treated problems include both psychological and physiological disorders as well as chronic bad luck, marital troubles, sorcery and malevolent curses (Sharon 1978). The second phase of the curative process includes the treatment of the particular problem by means of folk remedies prepared from medicinal plants, the most efficaceous of which are said to grow in the environs of a number of sacred lakes known as Las Huaringas. Especially problematic cases are led by the *maestro* on pilgrimages to these lakes, located a hard day's walk above Huancabamba at an elevation of approximately 10,500 feet. In completing the pilgrimage and in bathing in the sacred waters, the penitent believes that he or she undergoes a metamorphosis, a spiritual regeneration that is profoundly curative (Schultes and Hofmann 1979, Sharon 1972, 1978).

The dynamics of the Huancabamba cult have been discussed in some detail by a number of authors (Schultes and Hofmann 1979, 1980, Dobkin de Rios 1968, 1969, Sharon 1972, 1978, Friedberg 1959, 1960, 1963, 1980). The purpose of this paper is to introduce a number of novel ethnobotanical observations which I was able to make during my fieldwork in the region in 1981, including the discovery of a cactus previously unreported as an hallucinogen and a folk legend that offers evidence of the continuity of indigenous religious beliefs in the otherwise thoroughly "mestizada" culture of contemporary Huancabamba. For comparative purposes an account of the nocturnal curing ritual is presented.

Of the antiquity of the use of the San Pedro cactus in northern Peru there can be no doubt. Engraved stone carvings at Chavin dating to 1300 B.C. feature an anthropomorphic figure clutching a section of the cactus (Schultes and Hofmann 1979). Representations of the cactus show up on Chavin textiles, Nazca ceramic urns and Moche and Chimú ceramics (Schultes and Hofmann 1979, Friedberg 1963, Sharon 1978) and Towle (1961) has suggested that cacti were probably under domestication on the coast of Peru as early as the Early Intermediate (200 BC-600 AD).

A far greater challenge has been to establish continuity between the pre-Columbian use of this cactus and the present day cults. Historically, contact between western societies and indigenous societies in the New World stimulated novel adaptations as the indigenous societies were forced to adapt themselves to phenomena outside the range of their traditional experiences. Messianic movements in North America are one well known adaptation of this nature, but one closer to the Huancabamba example is found in the intensification of shamanistic activity among South American groups under the pressure of contact and acculturation (Harner 1973, Hudelson 1981). In the early postcontact era, the indigenous population of the entire north coast of Peru, including the adjacent regions of the Andean cordillera, was utterly devastated (Rowe 1948); and, as late as the mid-18th century, much of the region remained depopulated (Von Hagen 1964). Under such pressures, the indigenous

religious practices, including the utilization of *Trichocereus Pachanoi*, undoubtedly were thoroughly transformed.

Today, in marked contrast to the indigenous Quechua populations of the southern Peruvian Andes, the rural population of the Huancabamba and surrounding valleys is totally *mestizo*. No indigenous languages, textiles, forms of social organization or agricultural practices remain. True, remnants of aboriginal religious beliefs and practices have persisted, yet over the centuries they have been so fully influenced by Christianity that, in the syncretic result, it is often difficult to distinguish one tradition from the other (Sharon 1978). In fact, so rich is the overlay of Roman Catholic symbolism on the contemporary cults that early observers concluded that they represented a strictly post-contact, colonial phenomenon. Ethnohistorical evidence, while indicating that without doubt *Trichocereus Pachanoi* was used in some regions of 17th and 18th century Peru (Oliva 1895, Cobo 1956), is insufficient to allow the initial transformations of the indigenous religions and the subsequent evolution of the contemporary cults to be precisely characterised. In the absence of complete ethnohistorical data, evidence of the continuity of indigenous beliefs must be sought in a synchronic study of the symbolism of the cult as it exists today. In this regard, it is pertinent to repeat at some length a remarkable folk belief that I encountered near Huancabamba.

Whilst walking from Huancabamba to Las Huarinas, I noticed a particularly large stand of *Trichocereus Pachanoi* (voucher, herbarium specimen, *Davis 760*) growing at the Caseria Laumache, approximately three miles from Huancabamba. As I approached the stand, I was astonished to discover that a single clone covered perhaps one quarter of an acre; individual shoots towered to 45 feet, and some fallen sections measured 14½ inches in diameter. In order to collect specimens, I borrowed a machete from a nearby *campesino* who then followed me anxiously towards the San Pedro. As I entered the stand, he most emphatically urged me to hurry; when I attempted to pass him my cut specimens, he eased towards the edge of the stand with the utmost caution. Then, as he gazed over my shoulder, he suddenly yelled and flung himself face first

to the ground. Somewhat unnerved by his behavior, I hastened to complete my collections.

Later, upon reflection, I was most curious as to why such a stand, growing a mere five minutes from the principle trail to Las Huaringas, had not been harvested. At that time San Pedro sold in the coastal markets for 500 soles (about \$1.00 US then) a one-foot section of about eight inch girth. As a result, virtually all escaped populations of the San Pedro cactus in the valley had been harvested. Yet here was a single unmolested stand of literally tons of the cactus. When I questioned my main informant, a particularly esteemed maestro, don Pancho Guar-nizo¹, he gravely asked me how far into the stand I had ventured. When I replied that I had merely made some collections on the periphery, he sighed in relief and mentioned that in that case I would not die but merely break out with a horrible pestilence.

That special clone of San Pedro, he warned me, is protected by an enormous serpent living at the centre of the stand. The snake does not bite intruders but rather, as a spirit guardian of the plant, causes repugnant diseases to break out—a plague "like measles that causes small bumps all over the body." The cactus itself was reputedly the strongest in the valley, but no maestro dared to use it. Hence the stand is never disturbed.

The pestilence referred to in the legend quite possibly is the dreaded verruga, or Clarion's disease, an affliction known only from Peru, where it is localised in certain valleys of the western slope of the first range of the cordillera, including that of Huancabamba. It is caused by a recently identified bacillus (*Bartonnella bacilliformis*) which causes a temporary eruption

¹My principle informant at Huancabamba was don Pancho Guarnizo, a highly regarded *maestro* and a proud member of the Asociación de Naturalistas Evangélicas del Peru. The Guarnizo family emigrated to Peru from Ecuador some 150 years ago, and for several generations has been closely associated with the cult. Don Pancho was apprentised to his grandfather, a well known maestro from Las Huaringas, and in turn has passed his remarkable knowledge on to a number of individuals now practising as *maestros* in the Huancabamba area. Only recently did don Pancho himself move from Las Huaringas to the outskirts of Huancabamba and the family retains a house at Talenco, near the Laguna Negra, whence one of the sons directs the ceremonies at the sacred lakes. A second son, José, is a noted herbalist who has compiled a list of over 3000 medicinal plants which he is attempting to print in the coastal city of Piura. José is the "pharmacist" to whom don Pancho refers his patients for herbal treatments.

of wart-like excrescences, mainly on the face but often covering much of the body. Pizarro's men, it will be remembered, suffered a severe case of the disease while exploring the flanks of the sierra east of Tumbes:

"They thought at first that these were warts, because at the beginning they looked like warts. But as time passed, they grew larger and began to ripen like figs, of which they had both the size and shape: they hung and swung from a stem, secreted blood and body fluids, and nothing was more frightful to see or more painful, because they were very sensitive to touch. The wretched men afflicted with this disease were horrible to look at, as they were covered with these purple-blue fruits hanging from their foreheads, their eyebrows, their nostrils, their beards and even from their ears; nor did they know how to treat them. Indeed some died of them while others survived. Then it suddenly disappeared the way it had come, as do bad attacks of the grippe."
(de la Vega 1961: 375)

Perhaps coincidentally, two weeks after leaving Huancabamba, I suffered a dermatological disorder that covered my entire face and neck with blemishes; undiagnosed the attack disappeared after a fortnight.

This folk legend recounted by Pancho Guarnizo contains a number of symbolic elements typical of traditional South American shamanism, including: 1) the belief in spirit guardians; 2) the notion of particular geographical localities animistically endowed with supernatural power—the image of the serpent; 3) the concept of physical combat against disease demons or spirits; 4) the close association of certain magical plants with spiritual power and the idea that different individual populations of the same botanical species may be endowed with greater or lesser amounts of power; and finally 5) the belief in spiritual or supernatural forces as the causal agents of illness. The legend, in fact, exemplifies a fundamental feature of the contemporary San Pedro healing cult. Despite the overlay of Catholic symbolism, the aboriginal roots of the cult are readily apparent in every phase of divinatory and curative ritual.

On the night of February 15, 1981, I participated in a San Pedro healing ceremony under the guidance of don Pancho Guarnizo. A long brown muddy track wove past agaves swollen in flower and arrived at an open veranda contiguous with a

complex of farm houses. The patients sat passively on rough benches along one wall of the enclosure; at their feet lay the offerings that each must bring for the ceremony: a bottle of alcohol, a bag of white sugar, and one bottle each of *agua florida* (scented water) and *agua cananga* (red perfume). Each of the patients had already consulted the *maestro* and the healing process began at that first encounter; some of the patients had been waiting all day, and this period of inactivity before the ceremony appears to be a deliberate part of the ritual. There is a space specified for the purpose, and the *maestro*, while providing food, remains aloof and interacts very little with the waiting patients.

The patients exemplified the eclectic troubles treated by the *maestros*. There was a father and a daughter from Mendoza, near Chachapoyas in the Marañon basin. Until recently, the girl had been paralyzed, and though partially treated by a *brujo* ("witchdoctor") from Bague, she still suffered severe back and stomach pains and a general psychological depression. Further, a mysterious ailment had reduced the family's cattle herd from 58 to six head; and, to make things worse, an aunt had recently gone mad. The aunt had been too sick to travel; hence the father presented coins and hex stones in her proxy. Another patient was a business man from the coastal city of Sullana who wanted to discover the identity of the culprit who had embezzled 800,000 soles (US-1500.00 then) from his business. The final patient was insane. Several weeks before, he had discovered his wife in the arms of another man. The forsaken husband had gone for a gun, but the temporary lover was quick of tongue. He had cursed the husband, warning him that a murder would be avenged in heaven, and that, in the meantime, he would face life in a Peruvian jail. According to don Pancho, the words had fallen "like clumps of sod across a hollow coffin". The husband had collapsed in convulsions, during the course of which he went mad.

The *maestro* appeared shortly after ten. His body was wrapped in a deep blue poncho, and his enormous hat added years to his aspect. All that was visible was his elephantine nose and a chin that resembled the toe of an old boot. Holding a

flickering lamp, he announced simply that it was time to begin.

Behind the house, on a sheltered porch six colonial swords stuck into the ground marked the outline of the *mesa*, or ceremonial alter, before which the patients were directed to sit. From several bags, the *maestro* withdrew the power objects of the *mesa*. These included wooden staffs of tropical hardwoods (membrillo—*Cydonia oblonga* Mill., chonta—*Bactris gasipaes* HBK, ajohaspi—*Cordia* sp.) whale bones, quartz crystals, colonial knives, plastic toy soldiers, pre-Columbian ceramics and *huacas*, brass lions and deer, antlers, wild boar tusks, silver plates, murex and helmet shells, dice, statues of the virgin and many photographs, paintings and figurines of the Roman Catholic saints. There was in the placement of these objects the care and the inherent eye for the sacred that characterises the true *maestro* (Sharon 1978: 159–176). A single item from the offerings of each patient was placed before the alter.

The ceremony began with an invocation to Christ and the Virgin:

“Long live luck, work, fortune, business: obstacles, problems, here I go stopping, I go dallying, in good times, in bad times, with the grace of God and the most holy Virgin that this tobacco provide my patients with all their solutions, with my good tobacco, and the good mountains and lakes, the good herbs and my good tobacco—leaf for leaf, vein for vein, root for root, shoot for shoot, whether in Piura, in Lima or in Cajamarca where died our King Atahualpa—pieces of gold, bells of silver. Likewise shall ring out my name, the name of my family, my luck, my work, my fortune and my business with the grace of God and the most Holy virgin.”

Following the opening prayer, there must be a *pago*, a payment, and hence the *maestro* sprayed alcohol and perfume to the cardinal points and over each of the patients. During the course of the ceremony, each patient's bottle of perfume would be emptied and returned as a *seguro*, a sacred protection made up of herbs gathered at Las Huaringas. Following the *pago*, don Pancho brought out a large bowl in which tobacco leaves were soaking in an alcohol/perfume solution. He took a bottle of aguardiente and poured the contents over the leaves, and then massaged the leaves with his hands. Next he dipped a scallop

shell into the brew and instructed each patient to inhale the liquid through his or her left nostril, a procedure immediately followed for the right nostril. This *floreCIMIENTO* was repeated periodically throughout the night. After inhaling each sample, we were instructed to walk to the open end of the veranda, to shake our bodies vigorously to "release the force". That end of the open aired temple appeared to represent the interface between the inner and the outer; the shrine as sanctuary and the outer world as the place of darkness and spirits.

The next hour was punctuated by numerous invocations and litanies reflecting both Roman Catholic and indigenous origins, which were invariably followed by *floreCIMIENTOS*. At one point close to midnight, we were told to rise; and a large cauldron of liquid was brought from the kitchen. A single cup of the San Pedro preparation was passed repeatedly in a clockwise direction, until each patient had drunk three cupfuls. By now, the night was growing, and the temptation to sleep struck all patients. The *maestro* talked incessantly, beseeching us to refrain from sleeping, and as the San Pedro began to take effect, a dialogue began between each patient and the *maestro* during which the particular ailments were diagnosed. Each participant was considered individually, with don Pancho pausing to massage or suck on various parts of the patient's body to extract the supernatural source of the afflictions. The diagnosis was accompanied by ritualistic songs and chants and the rhythmic shaking of the sacred rattle. After the diagnosis, the patients lay down around the *mesa*, and attempted, sometimes in vain, to heed the *maestro's* warning to remain awake². Just before dawn, the man from Sullana lept to his feet, and rushed with a pair of wooden staffs to the edge of the veranda yelling:

"Away evil, away things of the night. We now have the power through the grace of don Pancho Guarnizo and so away things of the night!"

A long series of grandiose accusations, boasts and threats followed, which he accentuated with violent thrusts of the staffs. Then, as the man returned to the *mesa*, each patient orally sprayed aguadiente and perfume across the staffs.

A ritualistic purification began at dawn. The *maestro* rubbed each participant with a series of stones and sticks from the *mesa*. He massaged the limbs, pulling on each joint of our fingers; then spinning the patient, he hit each one with a switch on the back, and hurried the patient to the end of the veranda, as he yelled an order to shake violently. Then the apprentices took over, rubbing each patient with black round stones, white rocks, crystals of quartz and finally melted glass. There followed another rub down, first with two wooden staffs and then with two colonial swords. Finally, with the aid of the two staffs placed across the chest of the patient, the apprentice swung him or her off the ground, violently shaking the lower part of the body. The swords were placed in the form of a cross on the ground and the patient was led ceremoniously across the threshold that the swords represented.

²The actual intoxicating effect of the San Pedro was minimal. During his first three sessions with San Pedro, at least, it is clear that Sharon himself did not become intoxicated (Sharon 1972: 133-135). In part explaining his own failure to be affected by the psychoactive preparation, he stresses that "much more than the psychoactive cactus itself is at work in learning to 'see'. To see, to attain vision beyond what we would call the real world requires hard work, lengthy training and most important a very special kind of psychological predisposition combined to cultural conditioning" (Sharon 1972: 117). While acknowledging that, in general, a shaman's ability to interpret the hallucinogenic vision is a highly evolved skill, I fear that I must consider the rather prosaic matter of dosage. Having self-experimented on a number of occasions with two species of *Trichocereus* (*T. Pachanoi* and *T. Bridgesii* Britton et Rose) and having experienced extremely strong psychoactive intoxications during each experiment, I would argue that I was quite adequately predisposed to experience mescaline narcosis. Yet during neither of the two sessions in which I participated at Huancabamba did I, my similarly experienced assistant, nor any of the participants become noticeably intoxicated. In fact, a number of experienced students of psychotomimetic drugs have commented informally on their repeated frustration when participating in indigenous rituals involving psychoactive plants (Plowman, Weil, McKenna, Schultes pers. com.). This may be a reflection of psychological and physiological predisposition on the part of the western participants. Luis Luna (1983) has written a fascinating paper suggesting that a particular ritually prescribed and rigidly followed diet greatly enhances susceptibility to *ayahuasca* (*Banisteriopsis Caapi* (Spr ex Griseb) Morton). In the San Pedro cults, however, and perhaps in other cases, it appears to be, at least partially, a rather mundane matter of dosage. The *maestro* clearly controls access to the spiritual realm in the sense that a Roman Catholic priest is the only conduit through which the believer can partake of what he believes is the body of Christ. The sub-threshold dosages certainly do not realize the complete pharmacological potential of the hallucinogen. Rather, the hallucinogens may have become symbolically analogous to the Eucharist. Perhaps the *maestro*, himself utterly familiar with the visionary world illuminated by the psychoactive plants, retains a firmer control on the access to that spirit realm than has been commonly assumed.

After each patient had been thus treated, all the participants in the ceremony did a number of *florecimientos*, after which the *maestro* blew perfume, aguadiente, sugar and facial powder over all of us. After a final benediction, the ceremony ended. Each participant was presented with his *seguro*, the perfume bottle full of sacred herbs from las Huaringas.

Although I afterwards spent several days at Las Huaringas and bathed in the sacred Laguna Negra, I did not participate directly in the second phase of the healing ceremony. Sharon (1978), however, provides the following description:

"After the opening invocation, don Florentino approached all the participants and poured a small portion of herbal remedy from his *seguro* into their palms. This was imbibed through the nostrils by all present. . . . Next don Florentino instructed us to prepare for the bath. Undressing to our underwear, we entered the water, tossing offerings of silver coins and sweet limes sprinkled with sugar into the lagoon. We were next instructed to wade ashore briefly and then return to the lagoon for a quick final dip. As we came out of the water for the second time, the curandero blessed each of us and then instructed us to jump up and down and wave our arms to get warm. Once dried, we were allowed to dress.

Once dressed, each of us picked up the amulets and good luck charms we had brought with us and bathed them in the lagoon. Then, one by one, we took a turn before don Florentino for a "cleansing", or rubbing with his large sword. Then an assistant blew white powder over our chests, and the curer sprayed us orally with liquid from his bottle of magical plants. Then each participant orally sprayed perfume and sweet wine over the lagoon. To end the ceremony, we brought our artifacts before the curandero to be blessed in the name of the lagoon—a process that consisted of invoking the lagoon, calling out our names, and then orally spraying the artifacts with the herbal liquid from the *seguro*." (Sharon 1978: 131)

While living with don Pancho Guarnizo's family at Taleneo, near Las Huaringas, I made a number of collections which may partially clarify lingering questions concerning the botanical identification of certain plants associated with the Huanca-bamba cults. Sharon (1972: 122) draws the distinction between the plethora of medicinal plants utilised by the *maestro* and the magic plants which, although also medicinal, are endowed with particular spirit powers. In the former group would be a

number of medicinal plants found commonly throughout the Huancabamba valley. For example, an infusion of the leaves of *yatama* (*Salvia discolor* HBK) (Davis 683) is taken internally for stomach indigestion. The leaves and stems of the *flor de guayacan* (*Tecoma stans* var. *velutina* DC) (Davis 683) is drunk to treat tuberculosis. The solanaceous *hierba del aire* (*Lycopersicon hirsutum* Dunal) (Davis 680) provides a general tonic, while the rhizomes of certain ferns known as *calaguala* (e.g. *Niphidium* sp.) are employed in infusions for relieving liver ailments.

The magic plants, many of which are locally found only around the sacred lagoons, may be employed medicinally, but are also used for the *seguros* or as additives to the hallucinogenic potions. As medicines, the spirit plants are considered especially powerful. For example, an infusion of the ground leaves of *pegapega* (*Befaria resinosa* Mutis ex. L.) (Davis 703) mixed with honey is the strongest recognized treatment for respiratory ailments. A decoction of the entire *chagapa morada* plant (*Gentianella formosissima* (D. Don ex G. Don) Fabris ex Pringle) (Davis 751) in aguadiente is drunk for yellow fever. A similarly prepared decoction of *chagapa roja* (*Gentianella* sp.) (Davis 702) is a highly regarded febrifuge. An infusion of *huachumillo* (*Baccharis genistelloides* (Lam.) Per.) (Davis 674) is drunk to treat inflammations. An unidentified member of the Juncaceae—*hierba de dominacion*—is a magical plant that allows one to dominate enemies, as it insulates one's "forces of white magic from the power of evil". One of the most important of the Huaringas plants is *hornamo morado* (*Valeriana ascendens* Turz.) (Davis 756), a powerful purgative that is sometimes added to the San Pedro preparations. Sharon (1972, 1978) reports a series of additives under the generic term "hornamo"—*hornamo blanco*, *hornamo amarilla*, *hornamo morado*, *hornamo cuti*, *hornamo caballo*. Although only *hornamo morado* was specifically identified by my informant, it is significant that at least three other species of *Valeriana* (*V. malvacea* Graelsn. (Davis 743), *V. Mutisiana* (Wedd.) Hoch. (Davis 752) and *V. microphylla* HBK. (Davis 753) were found

growing near Las Huaringas. The roots of *Valeriana officinalis* L. contain valerianic acid which, when ingested in medicinal doses, acts as a stimulating tonic, anti-spasmodic and calmative. Excessive doses result in headaches, mental excitement, visual illusions, giddiness, restlessness, agitation and spasmodic movements (Hutchens 1973: 286).

The magic plants recognized by don Pancho Guarnizo are by no means found only besides the sacred lakes. San Pedro grows predominantly at the lower elevations in the environs of Huancabamba. Also close to Huancabamba, found only on the steep slopes of an isolated geological formation known as the Cerro Colorado, there occurs a second species of psychoactive cactus named *pishicol* (*Armatocereus laetus* (HBK.) Backeberg) (Davis 759). This plant, previously unreported as an hallucinogen, is an extremely rare endemic known from only four localities, all in northern Peru: Jaen, east of the Abra Porculla on the boundary of the departments of Piura and Cajamarca, Sondorillo, and Huancabamba on the Río Huancabamba (Zimmerman pers. comm.). It is a tall columnar, night-blooming cactus (12 feet), with erect, articulated branches with six to eight ribs. According to Dr. Allan Zimmerman, an expert in the neotropical Cactaceae, there are two other *Armatocereus* species in the region, but "one (*A. Rauhii* Backeb. has shorter spines and is a tall slender tree; the other (*A. Ghiesbreghtii* (K. Schumann) Ritter. var. *oligogonus* (Rauh. et. Backeberg) Ritter.) has stems that are only four to five ribbed." (Zimmerman pers. comm.).

Pishicol is considered by don Pancho Guarnizo to be as powerful as San Pedro and is prepared and ingested in a similar way: that is, three or four pieces a foot and a half long are sliced transversely, placed in a five gallon can of water and boiled for several hours. Phytochemical analysis of the species is now underway, and the results will be presented in a future publication.

An outstanding ethnobotanical problem associated with the Huancabamba cults yet adequately to be resolved concerns the botanical meaning of the term *cimora*. Cruz-Sánchez (1948: 253) suggested that *cimora* was the term applied to a particular

intoxicating blend of plants that included, in addition to San Pedro (*Trichocereus Pachanoi*), "el *Pedillanthus titmaloides* sp. [sic] (*cimora misha* or 'planta magica'), la *Isotoma longiflorum* [sic] (*cimora toro* or *misha veneno*), la *Datura stramonium* (*el chamico*)". In addition to these, he referred to a number of unidentified plant additives by their vernacular names, including "la *cimora misha blanca*, la *cimora misha curandera*, la *cimora misha rastrera*, la *cimora misha galga*, la *cimora misha huaquera*, la *cimora misha adivadora*, la *cimora misha amarilla*, la *cimora misha morada*". Friedberg (1960: 25) disagreed with Cruz-Sánchez and stated that *cimora* "is not a drink composed with a cactus but is a plant of the Amaranthaceae in the genus *Iresine*". She also identified the vernacular name *misha* as specifically applying to the solanaceous *Datura arborea*. In the same paper, however, she stated that San Pedro or *Huachuma*, as it is known in the northern sierra, had three locally recognised varieties: "la *curandera*, la *huachuma misha* and la *huachuma rastrera*". When Schultes (1967) reviewed the problem, he cited an earlier paper of Friedberg (1959) in which *Iresine* is referred to as *timora*, a "magic and dangerous herb" (Friedberg 1959: 443). Friedberg (1959: 448) also reported that a number of varieties of *Datura arborea* — *misha* — are identified by various animal names which she did not specify. She did mention three locally recognized forms of *timora*—*timora lanza*, *señorita*, and *sanguracha*. Schultes (1967: 39), not surprisingly, questioned whether *cimora* and *timora* might not be two forms of the same word. The anthropologists Sharon (1972, 1978) and Dobkin de Ríos (1968, 1969, 1977) simply repeated Friedberg's earlier determinations without reference to new voucher specimens. Schultes and Hofmann (1980) consider *cimora* a beverage made up of a number of plants (sensu Cruz-Sánchez 1948); but as authorities they cited Dobkin de Ríos (1977) and Friedberg (1959). Dobkin de Ríos (1977) made no mention of *cimora* and Friedberg (1959) used the term *timora*, not *cimora*. This minor oversight on the part of Schultes is understandable because Friedberg (1980: 38) used the two terms interchangeably, both again in reference to the amaranthaceous genus *Iresine*.

My own findings from the field, though by no means definitive, do have the advantage of being based on voucher specimens. It is worth noting that, quite by coincidence, my contact at Huancabamba and Las Huaringas, don Pancho Guarnizo appears to have been Friedberg's major informant (Friedberg 1963: 249-254). According to José Guarnizo, the herbalist son and colleague of Pancho Guarnizo, *cimora* is a conceptual term referring to "algo malo"—something bad. In this sense, he recognized a number of locally distinguished forms of *Brugmansia* × *candida* Pers. (identified by earlier students as *Datura arborea* L.) as *cimora oso* (Davis 670), *cimora galga* (Davis 672, 671, 687, 757, 758) and *cimora toro curandero* (Davis 673, 686). Other uncollected *cimoras* which he compared morphologically with *Brugmansia* × *candida* were *cimora aguila*, *cimora leon*, *cimora rastrera*. Although all of my collections have been identified as *B. × candida*, these unidentified vernacular names may refer to some of the other species of *Brugmansia* reported from the valley (*Brugmansia insignis* (B. Rodrigues) Lockwood, *B. suaveolens* (H. et B. ex Willd.) Bercht et Presl., and *B. versicolor* Lagerh.) (Friedberg 1980). According to José Guarnizo, these brugmansias, which he also referred to as *mishas*, were rarely added to the San Pedro preparations. Rather, the curandero, when faced with a particularly difficult case, might ingest these powerful plants alone, and thus divine the source of the particular affliction.

Timora, according to my findings refers to a number of plants, including *Euphorbia cotinifolia* L. (Davis 673a) and *Iresine celosia* L. (Davis 688). *Iresine*, although not known to have biodynamic principles, has a reputation among the maestros for curing insanity (Schultes and Hofmann 1979). It is of note that a related amaranthaceous plant, *Alternanthera Lehmannii* Hieron. is known to the Ingano Indians of southern Colombia as *borrachera*, "intoxicant" and they add it to their *ayahuasca* preparations to increase the psychotomimetic properties of the drink (Schultes 1957).

In summary, the term *cimora* appears to be a generic term which may be applied to a number of plants, specifically the brugmansias and perhaps, if Cruz-Sanchez was correct, the

euphorbiaceous *Pedilanthus tithymaloides* Poit. as well as the campanulaceous *Hippobroma longiflora* (L.) G. Don. (= *Isotoma longiflora* L.). Since I was unable to collect voucher specimens of the latter two species, the complete meaning of the term *cimora* still remains somewhat uncertain. Schultes (1967: 39) in reference to the identification of *cimora* has stated:

"Here is one of the most challenging problems in the ethnobotany of hallucinogenic plants, and one which would not be difficult to investigate thoroughly."

Today, nearly fifteen years later, and despite the attention that numerous ethnobotanists and anthropologists have given the Huancabamba cults, this fundamental clarification remains to be made.

ACKNOWLEDGMENTS

The field work reported here was funded in part by the Social Science and Humanities Research Council of Canada (Doctoral Fellowship) and in part by the Inter-American Foundation and the Atkins Fund of Harvard University. I would like to thank Dr. Michael Dillon, Dr. Timothy Plowman, Ms. Penny Matekaitis, Dr. Allan Zimmerman, and Mr. Steven Clements for identifying specimens and Prof. Richard Evans Schultes for reviewing the manuscript. During the fieldwork, I was ably assisted by Ms. Etta Turner. Finally, my deepest gratitude goes to don Pancho Guarnizo, his son José and his entire family who received and sheltered me in Huancabamba and at Las Huringas and who shared with me their remarkable spiritual insight. Voucher specimens are deposited in the Economic Botany Herbarium of Oakes Ames at the Botanical Museum, Harvard University and the Field Museum of Natural History, Chicago.

LITERATURE CITED

- Cobo, B. 1956. *Historia del Nuevo Mundo*. Obras del P. Bernabe Cobo, vols. 1, 2. Edited by P. Francisco Mateo. Biblioteca de Autores Españoles, vols. 91-92. Madrid: Ediciones Atlas.
- Truz-Sánchez, G. 1948. "Informe sobre las aplicaciones de la Cimora en el norte del Perú." *Rev. Farmacol. Med. Exper.* 1(2): 253-258.

- Dobkin de Ríos, M. 1968. "Trichocereus Pachanoi—a mescaline cactus used in folk healing in Perú." *Econ. Bot.* 22(2): 191-194.
- _____. 1969. "Curanderismo psicodélico en el Perú: continuidad y cambio." Mesa Redonda de Ciencias Prehistóricas y Antropológicas I: 139-149. Publicaciones del Instituto Riva-Aguero no. 53A: Lima.
- _____. 1977. "Plant hallucinogens and the religion of the Mochica—an ancient Peruvian people." *Econ. Bot.* 31: 189-203.
- Friedberg, C. 1959. "Rapport sommaire sur une mission au Pérou." *J. Agric. Trop. Bot. Appl.*, 6(8-9): 439-450.
- _____. 1960. "Utilisation d'un cactus à mescaline au nord du Pérou (Trichocereus Pachanoi)" *Sixth International Congress of Anthropological and Ethnological Sciences* 2(2): 21-26.
- _____. 1963. "Mission au Pérou-Mai 1961-Mars 1962." *J. Agric. Trop. Bot. Appl.*, 10(1-9): 33-52, 245-258, 344-386.
- _____. 1980. "Lo imaginario en las terapias populares" *Med. Trad.* 3(9): 29-44.
- Gheerbrant, A. (ed.) 1961. *The Incas—The Royal Commentaries of Garcilaso de la Vega*. Avon Books, New York
- Gutierrez-Noriega, C. 1950. "Area de mescalismo en el Perú." *Am. Indig.* 10(3): 215-220.
- Harner, M. J. (ed.) 1973. *Hallucinogens and Shamanism*, Oxford University Press, London.
- Hudelson, J. E. 1981. *The Expansion and Development of Quichua Transitional Culture in the Upper Amazon Basin*, Doctoral Dissertation, Columbia University.
- Hutchens, A. R. 1973. *Indian Herbage of North America*, Merco, Windsor, Canada.
- Luna, L. E. 1983. "The concept of plants as teachers among mestizo shamans of Iquitos, Northeast Peru." paper presented at the Symposium on Shamanism at XI International Congress of Anthropological and Ethnological Sciences, Vancouver, B.C., Canada.
- Oliva, A. 1895. *Historia del Reino y Provincias del Perú*. Imprenta y Librería de San Pedro, Lima.
- Rowe, J. H. 1948. "The Kingdom of Chimor." *Act. Amer.* 6: 26-59.
- Schultes, R. E. 1957. "The identity of the malpighiaceae narcotics of South America." *Bot. Mus. Leafl. Harvard Univ.* 18(1): 1-56.
- _____. 1967. "The place of ethnobotany in the ethnopharmacological search for psychotomimetic drugs." in Efron, D., Holmstedt, B., Kline, N. S. (eds.): *Ethnopharmacological Search for Psychoactive Drugs*: 291-306. Public Health Serv. Publ. No. 1645, U.S. Govt. Printing Office, Washington, D.C.
- _____. and A. Hofmann. 1979. *Plants of the Gods*, McGraw-Hill Book Company, New York.
- _____. 1980. *The Botany and Chemistry of Hallucinogens*, Charles C. Thomas, Springfield, Illinois.
- Thomas, D. 1972. "The San Pedro cactus in Peruvian folk healing". in Furst, P. T. (ed.) *Flesh of the Gods: The Ritual Use of Hallucinogens*: 114-135 Praeger, New York.

- _____. 1978. *Wizard of the Four Winds*, The Free Press.
- Towle, M. 1961. *The Ethnobotany of Pre-Columbian Peru*, Viking Fund Publications in Anthropology No. 30, New York.
- von Hagen, V. W. 1964. *The Desert Kingdoms of Peru*. Mentor Books, New York.

PLATE 41



Plate 41. San Pedro (*Trichocereus Pachanoi*) at Cataluco, near Huanca-
bamba.



Plate 42. José Guarnizo, son of don Pancho Guarnizo, at Cataluco with harvested San Pedro (*Trichocereus Pachanoi*) (Davis 677).

PLATE 43



Plate 43. Pishicol (*Armatocereus laetus*) on the slope of Cerro Colorado with the town of Huancabamba in background.