

# AMAZON

## UP CLOSE



OUT OF THE FOREST & INTO THE LAB  
AMERINDIAN INITIATION INTO SACRED SCIENCE

by Professor M.C. Meyer



Sacred & Secret 'New' Molecules

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## Out Of The Forest & Into The Lab: Amerindian Initiation Into Sacred Science

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*(Translated and edited from the original Brazilian Portuguese by Pamela Bloom)*

The following article is a rare and compelling account of a Brazilian scientist's first contact with an isolated Amazonian tribe, the initiation they gave him, and their subsequent commitment to work together not only for the survival of the tribe, but also their forest and the forest wisdom they possess. As an indefatigable liaison between Amerindian tribes and growing Western markets (both cosmetic and medicinal), Prof. Meyer feels the precious onslaught of time as he jets around the world today, negotiating with cosmetic companies, drug manufacturers and bureaucrats from various countries on behalf of different Brazilian tribes, including the Sateré-Mawés, a tribe of which he is now an "official" member – the result of a rather shocking ritual, which is described in this article. As Meyer passionately states, *"In order to survive into the 21st century, this tribe must find a way to sustain itself financially."* To that end, he is creating scientific, technological, industrial and commercial structures to valorize their products, i.e., their natural resources and know-how. He is restoring an old mansion in Manaus to house and publicly display Indian artifacts that he has collected throughout his many expeditions into the jungle.

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In 1981, I began my odyssey through the "Green Paradise" of the Amazon forest when for the first time I traced the minute shadow of our biplane as it hovered over the vast jungle floor. In the next moment, with a curious boldness, my boots touched the ground of this last great utopia and my life irrevocably changed. The magnetism of that first step, one which I would only later comprehend, marked the beginning of a passion for Amerindian knowledge that, little by little, transformed itself into a reason for living. Little did I realize, then, that the quest to understand the healing potential of the forest would also lead me into a fabulous journey of self-discovery.

In truth, the immense profusion of vegetal, animal and human life – as represented by Amazônia's vast biological diversity – exerts an irresistible fascination over everyone who has had the privilege to know it and to live with its

indigenous population. Aided by my Western medical training, I have been able to verify and document, through traditional empirical research, the therapeutic properties of plants utilized for thousands of years by our native Indians: the so-called "sacred and secret molecules," which are empowered and legitimized in the eyes of the Indians by their magical, ritualistic dance – a psycho-physiological combination, I believe, which is quite equal to (or at least parallel to) a Western medical prescription. (Compare this to the traditional Western relationship between doctor and patient, and the similar ritualistic dispensation of medicine – the pharmacist's so-called "sacred and secret molecules," which are empowered and legitimized in the patient's eyes at the moment the physician takes up the prescription pad and puts pen to paper.)

### **New Languages Of Healing**

For years I had sought to acquire a more profound knowledge of Amerindian traditions as much on the physical as the spiritual plane, but my first official mission began when UNESCO in 1983 contacted me to write a report, and afterwards a book, which would have the honor of being prefaced by the prestigious College of France. The project's objective was to analyze different neurobiological, psycholinguistic and psychocultural data to facilitate the learning of written language in autochthonous, socially disfavored populations. (On this particular occasion, UNESCO was trying to address the needs of certain populations from Africa, Latin America and the Orient, which had for a time been "literate," but were now returning to a state of illiteracy). For me, the UNESCO opportunity was perfect, since I had been seeking to collect through field research the linguistic heritage of Amazonian Indians. In this first initiative, I had the privilege of being able to document the immense richness of indigenous Amerindian graphic systems, which, in their own way, constitute a type of natural, though highly unconventional alphabet. But I also made a startling discovery: what might be called traditionally "illiteracy" had, in many of the tribes I visited, evolved into a ritualistic use of "body paintings" of such depth and detail that they might literally be considered masterpieces

of contemporary plastic art. Essentially, what I discovered was that the Indians, using their bodies as canvases, manage to transform themselves into a painting or pages from a book containing the quintessence of their history, the human body becoming a living diary, a veritable surface to record a millennia of their cultural values. What was being played out before my eyes was a rich storehouse of psycho-spiritual treasures replete with its own mysteries.

It was natural, then, that my fascination with the Indians' "ambulatory" works of art extended to the prodigious choreography of their ritual dances, which constitutes an authentic *linguagem corporal* (body language, possessing a perfect signifier-signified relationship, structured like our alphabet) – a language categorized in my UNESCO book as "mimo-posturo-gestual" (mime-postural gesture); the term refers to the richness, precision and the meaning of their gestures. Over the 30 days of my first trip, as I visited over 10 different tribes (including the Kayapó, the Waimiri-Atroari, the Sateré-Mawé and others), I continually marveled at the wealth of this artistic tribal expression, more natural and vital, more artfully dramatic than the masks of the Carnival of Venice, or the Peking Opera or the Japanese Noh Theatre. Transfixed by the rich palette of color and the intricate designs, I felt like a child, eyes goggling, as if I were listening to a grandmother recount magical tales of fairies and witches, full of electrifying suspense that left goosebumps on my skin. It was as if the Indians were "writing" in another way besides their body painting (this time, through their gestures in the air and their steps on the soil) a genuine legend, a story or history – as if we, the observers, were reading a book. Even more than the ancient Greek rites, these dance rituals documented the Indians' daily agenda, as they went about celebrating birth, baptism, marriage, combat, harvesting, hunting, fishing, etc. – all the rites of passage that cement an Indian's familial relationship to his/her tribe. Confronted with such richness, my curiosity was voracious, at first provoking a certain timidity in the Indians, but in a short time my enchantment with their creations was felt by them as proof of my genuine interest in their costumes and traditions. And in this way a beautiful story of

trans-cultural communication was born, founded on the deepest of mutual respect.

Scientifically speaking, the Indians' magnificent body painting, employing the natural pigments offered by forest plants, also deeply aroused my medical instincts and led me to inquire about the origin and nature of the colorant and therapeutic active principles they employed. How did they select these varieties of plants among the multitude of possibilities so generously afforded by nature? What criteria did they employ to avoid unpleasant surprises? For example, besides life-supporting medicinal plants, the lush Amazonian rainforest harbors powerful substances whose application on the skin can provoke irritation, or worse, can penetrate the bloodstream.

As I further discuss in another chapter of this book, this native art of botanical selection based on thousands of years of empirical knowledge surprised me with the abundance of hard-to-find information, not only because of the variety of colors and fixative principles, but also, and above all, because of the multitude of associated therapeutic principles. Such a rich patrimony of active principles available from the storehouse of the Indians' collective wisdom, along with their generous cooperation, convinced me to dedicate myself to the protection of this culture so at risk of extinction. To that end, it has become my mission to help them find a way to develop a project that would valorize these natural resources before it is too late.

### **The Forest As Sensual Art**

To arrive at the home of the 1,000-member Sateré-Mawé tribe, which is situated in the center of the largest forest on the planet – about 400 kilometers from Manaus (the capital of the state of Amazonas) – we took a small bi-motor plane to the picturesque little city of Maués, where we spent the night after an interview with the local radio station. The next day, we embarked in a regional boat made of Amazonian hardwood, partially covered by a roof of woven palm leaves from the piaçaba (*Barcella odorata* – a common Amazonian palm tree from which brooms and *ocas*, indigenous Indian houses, are made) in order to protect us from the powerful, but brief equatorial rains. In truth, the weather was a glorious festival of sun and rain,

punctuated by sumptuous rainbows, where the palette of colors appeared like concentric fragments, independent yet juxtaposed, just like the designs of the Indian's body painting. In fact, the tail end of the rainbow seemed to dive right in front of the prow of our boat, leaving us with the distinct impression that a celestial artist had just dipped his paintbrush full of color into the waters below, then brushed it luxuriously across the sky's canvas. In a few minutes, the sky passed from gray-black to oceanic blue to turquoise, reflecting the powerful "emerald forest" overhead as a feeling of strength and radiant peace came over us. Rejuvenated both physically and spiritually, I finally began to understand more profoundly the psychological theory of the effects of color on the human psyche.

Navigating the Rio Marau, which is only a sub-tributary of the great Amazon River, we often had the impression of crossing a broad sea, since we could not see the banks on the other side. The night, calm and serene, made navigating turns more difficult as we approached the confluence of the two rivers, such was the volume of the waters and the confusion of currents from the equalization process. Even our boatman, despite having a great knowledge of the rivers, was confused by the various trajectories. And he had good reason to be, since the magnetic force of the region – so abundant in rich minerals – disoriented the artisanal needle of our compass, turning the boats in circular spirals, just like the spiral of Archimedes. Despite hugging the banks whenever we could so as not to lose direction, we found ourselves at dawn practically in the same place as we had been hours before.

It was in this dizzying fluidity, however, that the innate sensuality of the forest – what, I believe, the Indians experience as a "spirituality of the senses" – revealed itself to me. The rising sun, the setting sun, the moon itself, in their natural quest to radiate light through the canopy, crafted mysterious shadows against the panoply of ferns, branches and leaves, making the voluptuous patterns difficult to discern and at the same time providing steamy fodder for hungry imaginations; even a jacaré-açu (*Melanosuchus niger*, family of alligators restricted to the Amazon), its little red eyes glowing in the darkness, leapt out at us as if arrived from a different world, returning

finally to the bank with a ferocious whip of its tail. Lost, as the old song goes, in the "sweet solitude" of so much life, I suddenly saw in my mind's eye, behind the savage shadows projected by the silvery moon, dozens of painted Indians in ceremonies dedicated to the cult of sacred nature. I believe that it was in this moment that I began to comprehend in vivo yet another aspect of the Indian's pantheistic naturalism.

After a short night spent resting in native hammocks, we began the second day of our navigation with a wakeup call from a flock of brilliantly colored birds. Perhaps the presence of our boat set off their deafening but cheerful symphony. From the distance came the long, melodious cry of the inambu (*Crypturus cinereus*), a song both plaintive and mysterious. As we took up our canoes again, other exotic birds presented themselves, such as the coquettish uiramembi, whose voluminously arranged topknot made it look as if it had just come from the hairdresser. At times we seemed lost in a labyrinthine of *igarapés*, the arms of the river (named "way of the canoes" by the Tupis), which go deeply into the forest. It was here that we caught sight of marvelous acrobatic fish, who make heroic leaps up toward the tree branches in the naturally inundated forest, snatch a piece of fruit, then plunge dramatically back into the water with Olympic-style grace.

At the end of the afternoon, we arrived at the symbolic "harbor" of the tribe, a clearing of devirginized tropical forest, where we beheld a magnificent *maloca*, an indigenous habitation surrounded by many primitive huts.

### First Impressions

Despite knowing that my companions were friends of the Indians, I felt a certain apprehension, mixed with joy, to come so close to this tribe for the first time, principally because this time our trip was not about impersonally analyzing their modes of expression, but rather about establishing a real relationship of cooperation between them and the so-called "civilized world."

When we landed the boat on the shore, we saw high on the hill a group of children that looked, according to their movements, quite excited to see us. (We could only

imagine the stories they were inventing about us.) In contrast, the adults appeared more remote, keeping back approximately 100 meters (330 feet) above the hill while they tried to judge our intentions by our first gestures, unsure whether we were to be respected as guests or feared as conquerors. This is a beautiful illustration of "proxemics," the science that studies different kinds of approaches between human beings. In general, the Indians are usually mistrustful in relation to white people; their devastating past, ruled by *garimpeiros* (gold miners) and some forest product companies, certainly justifies their mistrust.

At the moment we arrived, however, a very delicate problem arose, but it had a very lucky, even auspicious ending that finally favored our communications.

At first, the group appeared completely spontaneous, but as soon as we started walking toward them, they ran away like lightning into the jungle. (Never had I seen such speed and flexibility!) So odd they looked, running so quickly, yet simultaneously looking backwards so they would not lose the least of our gestures. In one of those coming and goings, climbing up some vines, one of the children, a very young girl hardly three years old, who was always looking backwards at us, tripped and started falling in my direction, headfirst, into a huge hole that probably was at least 13 feet deep. Without even a pause to think, I threw away my package, leaped up and caught her in mid-air – *in extremis* – by one of her legs. The group, even more surprised than we were, burst into applause.

I cannot adequately describe how this single moment of response has deeply changed my life. Even today, I marvel about what would have happened if I had not been able to reach one of her legs; she would have severely hurt herself and perhaps fatally so. Further conversations with the Saterés made me realize that such a circumstance as this could have been viewed as a test (from the jungle gods?) to test my true disposition to help them. What risk would have I been willing to run for them? What sacrifice would I have made? The Indians never talked to me directly about this; I learned about it only through indirect comments.

The only thing certain was that the little Ceci never again left me alone, except when we left for the "inside" of the jungle, when she remained with the adult Indians. Otherwise, she was always silently present. Each time I



would look over my shoulder, her black and brilliant eyes were fixed on me, sometimes wide-eyed with curiosity, other times serene, but always full of love, with a contagious smile, even somewhat complicitous (maybe even genuinely so), her black hair reflecting the brilliance of the sun. In ways I cannot even put into words, her bronzed skin, her charm and her childlike primitive beauty became indelible. She even wanted to live with us on the boat – a fact that her elders met with surprised amusement.

Even today, after so many years when I am writing these lines, I have this sensation that if I were to turn my head, I would see her beautiful black eyes.

### From The Forest To Paris And Back

After the introductions were made by the interpreter Moises, following some Indian rites, many doubts arose in my mind regarding my attempts to communicate, since I was always trying to avoid any type of behavior that could be wrongly seen by the Indians. Even the gifts that one person normally gives another upon visiting presented a problem. What could I give in order not to contaminate such a pure natural environment? Not to give anything would also be impolite because they would certainly give us handmade presents, in addition to their gracious reception and food, when we completed our stay with them. What a dilemma! Finally, thinking over the objective of this trip, I decided to offer them the French perfumes that I had taken with me as a gift for my friends in the capital city of Manaus because they were made with Amazonian products. As a matter of fact, one aim of our encounter was to make the Indians aware of their roles as guardians of this rich forest, the future rational exploitation of which could secure for them and their ancestral culture a survival with dignity. Perfumes such as Shalimar from the house of Guerlain and Coco from Chanel are excellent examples of that creative richness because the Amazon is considered a paradise of *lauraceaces*, a family of plants that is extremely aromatic and already a source of essential oils famous all over the world. Another classic example of this is Pau rosa (*aniba roseadora variedade Ducke and parviflora Mez*), from whose tree we can obtain the famous linalol, one of the natural products most utilized in the perfume industry for more than a century.

Besides aromatics, the Indians use this product as an antiseptic and an astringent, as well as to relieve dental pain, eczema and lice. (At the present time, we are studying flavonoids from the leaves of this tree that apparently have a particular property to combat cellular degeneration, a common problem today.) What a beautiful contrast between the indigenous naturalism and Parisian sophistication. Besides an aromatic for Havana cigars, the Indians use cumaru or muirapagé as a powerful anti-spasmodic, breath and heart moderator, hypothermic and in the fight against pneumonia.

Of course, since none of our Indians had ever seen "fragrance" in the form of perfume packaged in such a sophisticated manner, they examined it as if the gift were an extraterrestrial object. When I showed them how to open the delicate bottles, they thought the system to be very amusing. The Judge Almeida and Senhor Michelis, who already well knew their usual reactions, were very much entertained by the scene. The person most perplexed was I, who had not the capacity to anticipate their behavior. These sympathetic beings, isolated from the consumer world, loved to laugh. Indeed, everything new was a reason for an outburst of giggles, which followed a brief moment of perplexity and introspection. Their emotions lay very close to the surface, and when they finally opened the packages, I could literally feel their emotions on my skin. Certainly it was this affable and enchanting temperament that inspired Ronsard, Montaigne and Rabelais, well before Rousseau, to write beautiful passages celebrating the myth of the "Bon Sauvage (Noble Savage)".

And yet cultural exchange in every age has its own special irony. When the natives smelled the contents of the perfume I had given them, they made grimaces, as if overwhelmed by the intensity of the perfume or as if they had seen a strange spirit coming out of the bottle, like the genie rising from Aladdin's Lamp. I now believe that if it had not been me who had given them the present, they would have thrown out the contents; when in reality the formula of the perfumes was a product of the Amazon. Such an strange twist of fate!

And yet, some days later, the Sateré women had fully adopted the Parisian perfumes, making a real ceremony of cosmetic application! Bejeweled in body paintings and

surrendering to exotic dance movement, they seemed to me to be invoking the spirit of the fragrance to be released on their skin.

### *From Serious Business To The Laws Of Nature*

After this moment of relaxed geniality, as we began our more serious conversations about medicinal plants, our hosts listened a lot, without talking much. I tried to find meaning in their native silence. Finally, the *cacique* (chief), Tuchiaua Evaristo, after calm consultation with the other authorities of the tribe, decided that it would be interesting to organize for the next day a meeting of the Tribal Council so that I could present all my propositions.

Finally, after long discussions and much hesitation, the *cacique*, the *pagé* (medicine man) and the other Indians accepted the proposition to analyze together different medicinal plants utilized by the tribe as a joint project with shared remuneration to create medicines of the future. It was also decided that at sunrise we would leave for the interior of the forest to collect plant samples. The explorative mission would turn out to be particularly exotic: certain plants were collected uniquely when the drops of the morning dew were suspended on the medicinal leaves; others, when the sunshine caressed the petals of their narcotic flowers; others when the fruit fell on the ground giving access to its miraculous beans; others only when the sun is setting and the ground is very dry, giving access to its aphrodisiacal roots. As explained to me, these practical directions were given to the Indians by the forest gods. (Scientific analysis would say that empirical native wisdom "oriented" the gods.) In reality, the Indians themselves felt the necessity to legitimize their knowledge acquired through real experience with "divine guidance."

In truth, it was the Indians' humility and respect before the great mysteries of nature that made such a great impression on me. Contrast this to the Western approach, which feels the arrogant necessity to dominate nature – such as with the ancient myth of Prometheus, who stole the fire from the gods of Olympus to offer it to humans, or that of Doctor Frankenstein in the last century, who in wanting to create artificial life succeeded only in making a monster that takes back life. These stories teach us that whenever the ambitious try to betray mother nature, they

are invariably punished: in the first case by Zeus who had Prometheus chained to a rock on the summit of the Cacus, and in the second case, by Doctor Frankenstein's own monster which he himself had created. Simply, the Indian doesn't accept the pact that Faust made with the devil because he knows viscerally the power of nature and the beneficence that it contains. And for the so-called civilized world, where the results of excessive technological development have been often catastrophic, there is a great lesson to be learned here. We need only begin to list the "perversions" of our lifestyle: the nuclear leaks of Chernobyl or the proliferation of infectious diseases; the epidemic intoxications ensuing from technological manipulations of the foodchain, such as the ongoing drama of the Mad Cow Disease (*Bovine Spongiform Encephalopathy*); the nutritional emptiness of our modern diet created by the excess of synthetic and artificial food products. What few in our civilized world are aware of is the vast range of natural alternatives that the native culture has already developed that speak to the needs and conditions of modern man. For the sake of our planet, their contribution should not be ignored.

Otherwise, nature will ask her price!

### The Hidden Forest

An expedition into the forest with members of the Sateré-Mawé tribe showed beautifully what nature, aided by native knowledge, can offer us in terms of natural alternatives. For example, when we began our exploration, we left without any provisions for food. After several hours of walking, the first signs of fatigue and hunger showed. Not wanting to interrupt the walk, the Indians had a solution for both symptoms: two seeds per person of guaraná (*Paulinia cupana var. sorbilis Ducke*). Baptized the "fountain of youth" by the Sateré, this plant, now used in many modern products (including a Brazilian soft drink) has important psychotonic and cardiovascular effects, promoting prolonged energy, thanks to the high dose of guaranina, guaranatina, guaranic acid and caffeine. (Another added benefit: guaraná also acts as a powerful appetite reducer.) Hours later, our Indian guide asked us, via the interpreter, if we were thirsty. With a fine dexterity, he leaped like a Tarzan to pluck a compact cipo, about six

inches in diameter, which he cut into two pieces. (The cipo, commonly known as liana, is a luxuriantly growing woody tropical vine that roots in the ground and climbs around tree trunks.) From that one piece of cipo poured forth into our mouths about one liter of cold, crystalline water, rich in healthy mineral compounds, even though the outside temperature was about 35°C (95°F).

In the beginning of the afternoon, feeling our exhaustion, our native guide proposed a new elixir from the forest: the *leite do amapa*, a sap originating from a flowery tree called Amapa doce (*Brosimum potabile* Ducke), which made an potent tonic. My attention was called to the agility with which our guide cut a zig-zag route in the enormous trunk for the sap to run out. As the "tap" started, my native companions fashioned a "cup" in a matter of seconds by folding a large leaf picked from a nearby tree, as if nature itself was providing the most efficient tableside service – sufficient enough, in fact, to reach out and serve oneself. I could almost hear live music in the happy orchestra of birds, Papageno's leitmotif, perhaps, from *The Magic Flute* of Mozart.

After a long and tiring day of collecting medicinal plants recommended by the *pagé*, many kilometers from the tribe, it was impressive that none of us were really hungry. Despite having said that, at the end of the afternoon before the long return, our guide decided to give us more agreeable surprise: he stopped before a splendid tree, the Massaranduba (*Mimusops amazônica* Hub). Also called in some regions *arvore de leite*, it is the real queen of the forest. Rich in tannin, its abundant latex was as tasty as cow's milk, but thicker and richer in flavor. With the same agile grace as before, our guide served us up this nectar of the gods, which satisfied us till the next day. Besides being nutritious, the Indians combine the latex mixture with honey to make a respiratory tonic, in doses of 60-80 grams twice a day, which serves to expand their lung capacity for those long walks, principally during the hunt, that demand nonstop physical energy. Modern phytotherapy utilizes this mixture in the treatment of tuberculosis and as a plaster, a pasty preparation spread on cloth, which is applied to the body as a cure for bronchial-pulmonary diseases.

On our return, we crossed *igarapés* in a 100-foot canoe made entirely from one trunk, called *uba*. Majestically

piloted by the Indians, it skimmed elegantly and silently through the inundated trees, where the leafy branches made bridges and voluptuous tunnels overhead. For moments, the only sound we heard was the ping of waterdrops as they fell from the oar. One of the surrealistic images that really struck me was a monkey who, swinging by its tail from a flexible branch, launched itself in one long impulse over the river with one hand, filled a *cuia de macaco* with water, then returned to its branch, from where it stared at us with intense curiosity as it drank its water. The *cuia de macaco* is made of the knot of wood that contains the chestnut of a well-known tree called Sapucaia-uassu. When hard, the nuts fall from the shell, which is used by the monkeys as a dish. The Indians use the bark and shell as diuretics, and to fight jaundice and albinism diabetes.

The Indians joke with these animals as if they are their friends and playmates, as if they had between them a kind of complicity based on a very special humor which escaped our comprehension. Truly, there existed between them an inherent harmony and a great familial solidarity.

### A Passage Of Fire

After many diverse and long expeditions into the forest to collect medicinal plants, the *cacique* and the *pagé* of the tribe summoned me to say how satisfied they were with the possibility of establishing an equitable relationship to protect the future of their descendants – this, in the face of the “white invaders” who were coming closer and closer each time to their land – the inevitable march of progress.

To demonstrate their acceptance of our relationship, the tribe proposed my initiation into the ritual of the *Dança da Tocandira* called in Sateré-Mawé *Waty ama*. As a male rite of passage, this impressive, if terrifying ritual usually has the objective to initiate the Indian youth at about 10 years old (equal to our 18 years) into adulthood and its virtues of courage and harmony with nature. In order to prove his bravery before the tribe, the boy has to stick his arm, from fingertip to shoulder, into a handwoven cylinder containing an anthill of large, voracious, bitterly stinging ants (the *tucandeiras* are actually gigantic, about an inch in length). Tears run down the initiate's young face and he is permitted to cry out – not as an absence of courage, but in respect to the forces of nature which are considered

superior to man. What is not permitted is screaming, nor any retreat from the challenge, since that would display disrespect to the tribe and would essentially bar the initiate from participating in certain ceremonies of hunting, fishing of certain fish, collecting medicinal plants, etc.

In my case the ritual was being given to offer me the title of "Patente de Capitão," a kind of decoration equivalent in the West to an honorary citizen, who had been deemed acceptable to pursue beneficial work on the behalf of the tribe (something akin to receiving the keys of the city, but much more serious, because of the implications, responsibilities and confidence agreements). Certainly it was to be considered a ritual that conferred on me the confidence of the Sateré, in thanks to the Supreme Being, called Tupana, whom they believed was the god of nature represented by the force of thunder.

Whereas usually one's father, godfather and *pagé* accompany the initiate into the forest to meditate and invoke the spirits, the *cacique* and the *pagé* took me into the jungle, where during a walk we first ate a tasty *inga-açu* (*Inga edulis* M.), a sweet pulpy fruit that is also used for mouthwashes and gargles to fight thrush, laryngitis and bronchitis. As the interpreter had been given no directive to accompany us, I couldn't ask the reason for the ingestion; perhaps it was to purify the buccal cavity and the vocal cords, since later we had to sing exotic chants to invoke the spirits of the forest and ask for their blessing. This was done on foot under the powerful sumauma tree (*Ceiba pentandra* Gaertn), about 80 meters high (260 feet) and whose trunk, at its base, was so huge that it required the arms of 15 men to encircle it. (The Indians use its sap against conjunctivitis, and on this occasion we made a ritual face and eye washing from the excellent fresh water obtained by cutting one of its enormous emerging roots. Then, as if we could now turn our purified eyes toward heaven, we began the invocations of protection to the nature deities who guarded the initiation ceremonies. Cautiously, I tried to repeat it, without comprehending, but soon I felt an immense sensation of peace which, little by little, transformed into a real jubilation. A sense of magical protection encircled me, giving me the impression that nothing bad would ever happen to me. Then I was prepared for the ritual, which consisted of a dance that lasted for hours.

The day before, the Indians had gone into the forest to look for ants. In order to fill up the glove with ants, they stunned hundreds of tucandeiras with the sap of an anesthetic plant, whose name I do not want to divulge since it would be a sacrilege for persons other than the Saterés to use it in a commercial context. (In fact, the glove is woven with the anesthetized ants inside in order not to hurt them while putting them inside.) The following day the ants wake up from the anesthesia and remain inside the glove for two more days at which time (the time of the ceremony), they have become hungry and furious. The glove to be used in the ceremony was made with very fine and resistant fibers from a special palm tree called tucuma, which is already used in the making of hammocks, and whose nuts are rich in oils and fatty essential acids for good digestion. The fibers of the glove are specially colored with forest plants by a weaver, who creates an artistic motif especially for the initiate. In my case, they evidently used a symbolic number of ants since they knew well that "city whites" couldn't maintain the same resistance to the powerful toxins of the virgin forest as they could.

Some days before, the Indians submitted me to two ant bites – with an interval of five days in between – to see if I would have an allergic reaction; the interval between the two bites showed that the Indians already possessed a secular empirical knowledge of anaphylaxis, which consists of an extreme allergic reaction that could result in death if the toxin is injected a second time into an individual allergic to such a toxin. (Evidently, the quantity of toxin I was given was kept to a minimum to avoid any problem.)

The irony of fate: anafilaxia was only discovered by Western medicine in 1910 by the famous French researcher Professor Charles Richet, of the Pasteur Institute. Incredible as it seems, the discovery was made from a toxin, crepitina, isolated from an Amazonian plant called assaçu (*Hura crepitans*), which the Indians used in fishing to stun the fish and whose properties are described under *An Exotic Pharmacy*, above). Thanks to this discovery, Professor Richet received one of the First Nobel Prizes of Medicine in 1912.



### Dancing Into Eternity

For the unusual event of my initiation, the Sateré invited members of the neighboring tribes, who unintentionally performed an improvisatory ballet of *ubas* (canoes) on the river Maraú before mooring on the Sateré quay. Just a moment before, in this bucolic twilight scene, the horizon burst forth in a multicolored display.

We were directed to a central maloca, where the women of the tribe served us the famous *açai* wine (*Eutepe oleracea Mart*). The round fruit of this palm tree, when mature, is treated with hot water and left to ferment with other ingredients: the result is an aromatic drink of dark violet color which, at the sound of the drums, whistles, panpipes and other exotic musical instruments, took us deep into the merry festival atmosphere. At my side always were the *cacique* and the *pagé*, the tender Ceci always close by. All together, we began to dance with arms entwined, forming a linear chain, which circled about on its own axis. My first steps were hesitant, but rapidly the melody and the ecstatic rhythms marked the duple beat and my steps fell into perfect harmony with the group. (In fact, back in Paris, whenever I listened to a cassette recording made of this occasion, I would find myself immediately transported to this supernatural moment of synchronicity, peace and communion.) Indeed, in this moment I felt myself to be truly and completely Indian.

After an hour of dancing (perhaps two or three – the notion of time disappeared completely), they ceremoniously placed the famous Tucandeira glove on me. Immediately, there were many sharp incisive bites, and my head twisted in agony from the thunderous fire through my body – pain beyond words. The music, the dances and the singing continued to encourage me and give me nerve. Some time passed – I don't know how long since it seemed like an eternity – and finally, the *pagé* took off the glove. The Indians came close with choreographed footsteps, holding a basin with a macerated mixture of medicinal analgesic plants, whose names they showed me in sign language. Then they bathed my arm delicately with this mixture, and the pain progressively subsided. On the following day I practically had no swelling or edema, and two days later absolutely no hematomas, though at least light scars without infection.

At the end of the ceremony, after a discourse with the *cacique* whose contents only he can reveal, I was dispatched to receive the famous "Patente de Capitão." In response, I offered a few emotional words, to honor what they had bestowed on me and to acknowledge the highly privileged moment of their ancestral traditions. I felt a tremendous emotion and a certain shyness, much much greater than I felt in my first degrees at the College of France, in the conference I gave at the Sorbonne and in all the international congresses. Moved by the touching expression of affection from my new friends and comrades, I offered to the *cacique*, in a confraternal gesture, my shirt sweaty from the inebriating dance and the tumble of emotions provoked by the *tucandeiras*. It was as if I were offering to him, the respected chief of my tribe, the sweat from his own brow.

On the following day I rested a little from the fateful event and I felt like a new man.

In the final ceremony of the initiation, one normally has one's shoulders scratched with the teeth of a *paca* so that they should become large, the buttocks well toned and the chest strong and muscular. I don't believe that in my case they had expected that my shoulders, buttocks and chest would have been particularly developed to confront the challenges of nature. Certainly they had considered that since I had already long passed the age of puberty, they should spare me this heroic epilogue.



Note: The primary contact I had with the Sateré-Mawés, was established thanks to two personalities of the region: The Deputy Darcy Michelis, whose father during the middle of this century had already succeeded in establishing the first peaceful relationship with the Sateré and who, himself, was as much a naturalist explorer as he was a politician. (Her father actually abandoned his political career and left the capital of the state to dedicate himself to a more natural life among the Indians.)

Judge of Justice Alvarina Miranda de Almeida of Manaus, who for many years has been dedicated to the protection of this indigenous community, with important programs especially directed toward the Sateré-Mawé women, and with whom I am organizing an international symposium on Amerindian literacy and the economic development of Brazil's Amazônia. The objective of this symposium is to create a system of written communication adapted to an indigenous people which would permit them to safeguard their previous cultural patrimony and to document their

knowledge of medicinal plants, so that in the future they could establish equitable relationships with interested industries of forest products, based on the respect for the Indians' "sacred molecules" previously deemed secret and thus inviolable to materialistic gain.