Marc Schweizer

Aloe the health and healing plant

Translation by Ed Maykut
4th edition



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ALOE

the health and healing plant

4th edition



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INTRODUCTION

The several thousand year history of the aloe vera plant is as fascinating and captivating as a best seller historical novel.

Long known for its mysterious beauty, its wild elegance and its legendary therapeutic properties, it was considered in some civilizations as a God. In ancient Eygpt, aloe was the plant whose "blood" gave beauty, health and eternal life. It played a part in the enbalming rituals and accompanied the Pharaoh on his voyage to the other world. For the emperors of mythical China, the healing thorns of the leaf were the sacred nails of the divinities.

For the Indians of the Americas, the aloe plant was one of the sixteen plants venerated as Gods. In the great African desert, the nomadic camel drivers called it "the lily of the desert". The Americans call it "the silent healer" or "Doctor Aloe", the Russians, "the elixir of longevity".

This small book does not have the pretense of offering an exhaustive study of the virtues and powers of aloe. But this magic plant probably still has other surprises in reserve for us. A friend of mankind as are the nutritive plants such as wheat and the olive, aloe vera is indeed our par excellence medical plant.

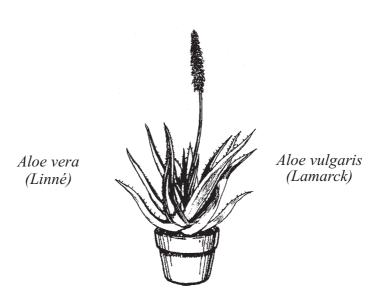
In the United States, Russia and China there are millions of enthusiastic adepts and there exist many publications on the subject of aloe. In France, which was one of the first European countries to recognize its medicinal virtues, the mandarins of medical orthodoxy have long hindered the publication of scientific studies on the subject.

In this work, the asterixs (*) refer to the vocabulary page ??

⁽¹⁾ A number refers to the note on the bottom of that page.

Aloe vera

"the doctor in a pot" (of Christopher Columbus)



Aloe barbadensis (Miller)

Aloe vera



Aloe vera named and described by Linné and the Aloe barbadensis described by Miller as well as the Aloe vulgaris of Lamarck are the same plant.

Today, the official botonical classification has given the name "Aloe barbadensis Miller" while the name "aloe vera" has become the popularly used name, which we will be using throughout this book. According to Roger Lavergne, the botonists think that the plant aloe vera is indigenous to the island of Cap Vert in the Canaries and perhaps also Madiere. For a long time several species of aloe were grown in the mediterranean basin then in latin America. Plants are found in the garrigues of southern France where it was long included among the "simple medicines", where it was also known for its digestive and purgative virtues.

The aloe vera grown on the immense American plantations reaches a height of 60 to 90 cm, even more. The leaves are 40 to 60 cm long with thorns on both edges, with a width at the base of 6 to 15 cm. In the wild state the plants are often smaller. It depends a lot upon the type of terrain and the climate. The leaves of the aloe vera are covered with a cuticle* (protective layer) on which the stomates* filter air and water. Under this membrane there is a first layer of cellulose derme containing crystals of calcium oxylate and percyclic cells of the reddish-yellow sap having laxitive properties and called the "blood" of aloe. Finally, enclosed in this triple protective layer we find the colorless parenchyma* which is the gel looked for in the plant. The quality of this gel depends much upon the quality of the soil and the climatic conditions. (See page 36).

WHAT IS THE ALOE PLANT?

The botanists specify that the aloe plant is a Phanerograme* (with flowers) Angiosperm*, of the Liliacea*(1) family. This is the family of succulent plants of which cacti are a part. The flowers grow on one or several stems. The flowers resemble a small trumpet, the colors of which range from a greenish white to red passing through yellow (aloe vera) and orange.

Its long thick and brittle leaves with thorns on both edges grow in a spiral rosette around a stem. The mucilage* in the interior of the leaf contains the parenchyma*, a sort of spongy cellular structure which is capable of retaining water filtered by the roots and the leaves. By a complex alchemy (metabolism) this water is then transformed into a slightly bitter and translucent gel. This is the gel so prized for its medicinal properties.

The reproduction of the aloe plant can occur in one of two ways, either by seeds (birds and insects aid in the pollination) or by offshoots which grow at the bottom of the short stem. The medicinal virtues of the aloe plant have long been known by many different peoples belonging to all the civilizations on our Earth.

The name comes from the greek word aloê: in Arab it is alloeh and in Chinese it is alo-hei. It must not be confused with the agave (see note page 16), a plant which resembles it, but in the botonical classification it belongs to the amaryllidace. There are about 300 different species of aloe known in the world and new ones are discovered every year. They include small plants of a few centimeters

⁽¹⁾ The aloes belong to the same liliace family as the jacinth, the lily, the tulip, the asparagus, the garlic and the oignon. Today a new international classification places the aloe in the family of the Asphodelacea.

to tree-like aloe dozens of meters high. But not many of the species are medicinal. The aloe plants most known and used in medicine are *Aloe vera*, (1) Aloe from the Cape (Aloe africana or saponaria), Aloe sinensis, Aloe arborescens, and Aloe ferox with the sharp needles. Certain enthusiastic adepts consider the aloe to be a veritable panacea.

The aloe plant is found in the natural state in most tropical, and subtropical regions. Certain species were long used in marine rope making since it was incorruptible, but now it is being replaced by synthetic fibers. It is still used in some parts of the world to make mats and very resistant fabrics. The aloe ferox and aloe saponaria are prized by the Japanese. The aloe arboresens is the type most studied by the Russians. The aloe excelas from Zimbabwe (an arborescens type) can reach up to ten meters in height.

But it is essentially the pulp contained in the long plump leaves of aloe barbadesens Miller with edges covered with thorns which is used in beauty care, hygiene and in the treatment of many ailments. With the rapid development of its paramedical use in recent times can we consider it as an ephemeral phenomenon or does it really correspond to its veritable and proven qualities? In studying the history of its development, we are forced to admit that, in spite of its enigmatic appearance, this strange plant conceals virtues of an unbelievable richness which it has made available to us.

A small experiment

To realize the surprising capability of the aloe leaf to survive, it is interesting to perform the following experiment: Make a cut in a leaf on a growing aloe plant and you will discover that the plant quickly heals itself. At first you will see an oozing at the cut which in several minutes stops and a new skin is soon formed. The plant has healed the wound. Redo the experiment with a leaf cut

from the plant, then with a freshly cut leaf stored at a temperature of 2 to 4 degrees C for ten days. You will note that even without light; the leaf will have shown the same power of regeneration. An aloe plant unearthed and abandoned in the hot sun for months will resist the heat and will retain all its vital faculties intact to grow again when watered.

A univeral use

The reputation acquired by the aloe on the five continents does not seem to be usurped. Yet, in Europe they were content for a long time to limit its use in the form of a powder as a bitter laxative or vermifuge, since they did not know how to conserve the fresh active gel from the musilage*. Today, it has been proven that this gel extracted from the pulp of these leaves cures many of the minor daily injuries and health problems such as insect bits, burns, cuts, digestive problems, eczema, etc. It is also a very excellent cicatrizer. Moreover, it also offers us in the form of a juice an astounding food complement, both tonic and vivifying.

The athletes of many countries use aloe juice to prevent and to cure sprains, tendinitis and many wounds. Certain athletes use it discreatly as a natural stimulant undetectable during doping control tests. Women use it to make face masks, body creams, in shampoos and capillary lotions. Some say that there is nothing better than aloe for a base treatment of hepetitis, asthma, leprosy and skin diseases. In brief, it is the par excellent plant to be used as a "first aid".

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The Song of Songs

You are an enclosed Garden. my sister, my fiancée; There is under your tongue honey and milk. And the odor of your cloths is like the odor of Lebanon. You are a flower garden, a perfumed spring, a sealed fountain. Your waters feed a delicious garden flowered with roses where grow trees with fruits of gold and purple, mango and grenadine trees with delicious fruits. the privets with the nard and the safran. the sweet rush and the cinnamon. and all the trees which give incense, the myrrh and the aloes...

THE MARVELLOUS HISTORY OF ALOE

Antiquity

The curative virtues of aloe were already known during ancient times. Authentic facts, testimonials and legendary narrations recount its history.

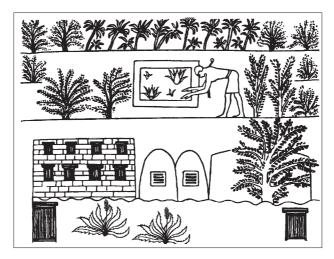
It was among the Sumarians, during the times of the Kings of Akkad, where we find on clay tablettes the first allusions to the therapuetic use of aloe (musabar). We also find the aloe plant painted on the Egyptian vases of the archaic epoch. The "Egyptian book of remedies" on the famous Ebers papyrus (XVth century A.D.) also mentions aloe among the healing formulas having already existed 3000 years before our times. Among the Hindus, the aloe plant retains an important place in the secret plants of the Atharvaveda (2) where it is already named "the silent healer"

In the Bible, it is mentioned in several of the sacred books: Numbers, Song of Songs, The Gospel.

We find this passage in the New Testament according to St John: "Nicodimus, who had gone to see Jesus in the night, came again bringing a mixture of about a hundred pounds of myrrh and aloe. He then took the body of Jesus and annointed it with spices and wrapped it with cloth, as was the custom of the Jews.

⁽²⁾ Arthavaveda: One of the four "Veda" (in sanskrit = knowledge), the fondamental texts of hinduism which contain formulas and incantations. It is composed of 731 hymns containing about 6000 stanzas: prayers, expiations, , magic incantations, charms, plants and secret preparations destined to care for all sorts of diseases. It is completed by the ayurveda (veda of life) the Hindu medical science.

During the period of the persecutions of the early Christians by the Romans, they were forced to burn incense in their temples as offerings to the Roman Gods. To avoid this obligation, which they found detestable, certain Christian communities of the primitive church (Edesse) replaced the official incense made from the wood of aloe, by their own "sacred incense" made with the biblical aloe mixed with myhrr and benjoin. (3)



Ancient Egypt

Among the ancient Egyptians the aloe had the reputation as being a beauty product for the women. The Pharaohs considered it an elixir* of long life. It was traditional to bring a plant of aloe to the funeral as a gift, for it was a symbol of a new life. The aloe, planted along the route leading to the valley of the Kings and that around the pyramides, accompanied the Pharaoh during

⁽³⁾ Des écrits anciens confondent parfois l'aloès biblique, la plante médicinale, sujet de la présente étude avec l'*Aquilaria agalochus*, un arbre au bois résineux et aromatique appelé "bois d'aloès", dont on tirait également un encens très recherché.

his passage to the beyond in order to feed and care for him all along the way. When it came into flower, it was the sign that the Pharaoh had reached the "other bank". Besides, the priests used the plant during the funeral rites by incorporating aloe into the enbalming formula under the name of "the plant of immortality".

The ancient Egyptians, inventors of the syringe also used it as an enema. ⁽³⁾ The ancient writings sometimes confuse the biblical aloe, the medicinal plant, the subject of this book, with *Aquilaria agalochus*, a tree of a resinous and aromatic wood called "wood of aloe", from which they also extracted incense. The ancients also considered that aloe had cosmetic virtues. It is said that Cleopatra owed the bloom of the look in her eyes to an eye lotion made of aloe, a secret of one of her numidian slaves, and that the beauty of the skin of queen Nefertiti came from her baths made of the pulp of aloe and ass's milk Greece and Rome



For the Greeks, the aloe symbolized beauty, patience, fortune and good health; Hippocrate, in one of his treatises, describes some of the curative properties of aloe: regrowth of hair, healing of tumors, relief of dysentary and of stomach aches. It is said that in the year 330 B.C., Alexander the Great had been wounded by an enemy arrow during the seige of Gaza. The wound became badly infected during his conquering calvalcade across Egypt and Libya. While at the oasis of Amon he was proclaimed son of Zeus, where a priest, sent by the famous Aristotle (his tutor and mentor), treated his bad wound with an oil based aloe from the island of Socotra which healed the

wound. It is also said that it was Aristotle who convinced Alexander the Great to undertake the expedition to conquer the island of Socotra in the Indian ocean to ensure the supply of aloe. It was even said that the juice of this plant rendered the soldiers invulnerable

For many orientals the oil of aloe has the great property of procuring wisdom and immortality. The Phenicians dried the pulp extracted from the leaves and placed it in bags made of goat skins and then exported them throughout the Greco-Roman world.

It was during the Punic wars that the Romans discovered the astounding virtues of the aloe plant upon seeing their wounded carthaginian prisonners using large quantities to treat their wounds.

During the first century of our era, Celcius, one of the precursors of modern medicine, also praised the merits of aloe. As for Dioscoride, a greek doctor who had served many years in the Roman army, he described with great enthusiasm in his "Di materia medica" the properties of aloe, where he mentioned its virtues: of coagulating the blood of the wounds, to heal open wounds, to heal boils and hemorroids. He also claimed that the fresh pulp of aloe stopped the falling of hair and cured eye inflammations.

Pline the Old (23-79 A.D.) described in his book "Natural History" an original way to cure dysentary by injecting aloe juice into the rectum

The Orient and Africa

The Bedouins of the Arabian peninsula and the Touaregs of the Sahara know well the virtues of aloe since time immemorial. They call it "the Lily of the Desert". In Mesopotemia, the inhabitants decorate their doors with the aloe leaves as a protection. The Parthes and the Scythes, in case of epidemics or food scarcity, had the habit of eating the aloe pulp. As we stated above, the island of Socotra in the Indian ocean was renowned since

the 5th century B.C. for its aloe plantations. The inhabitants exported the extracts from this plant (musabbar) as far eastward as China passing through India, Malasia and Tibet.

Thus, aloe is mentioned as a precious foodstuff in the "Jin Ping Mei", a famous Chinese novel, "the Book of Marvels" by Marco Polo and in the works of Maîmonide.

The initiation into the medicinal virtues and powers of aloe and hemp were a part of the teachings of the Ismaelien sect, one of whose most illustrious representatives was the doctor and philosopher Avicenne.

According to legend, Hasan ibn al-Sabbah, the old man of the mountain and chief of the brotherhood of "assassins", was inspired by Avicenne. Their doctrine included the apprentisship by degree of the secrets of the "seven sebayahs" or "knowledge of the right road" by which the Ismaeliens conferred magic powers to their adepts. The aloe plant and hemp grown around the Alamut fortress (northern Persia) were considered by the Ismaeliens as a kidney vech, an antidote and an elixir of long life. It is said that one of the secrets of the longevity of the Templer Knights was found in the famous Jerusalem elixir composed of hashish, aloe pulp and palm wine.

Eight centuries later, Dominique Larrey, chief surgeon of Napoleon's army, was initiated by a marabout, who he had seen miraculously cure the worst wounds inflicted upon his Mamelouks. He then learned how to treat the soldiers of Napoleon's Grand Armée with the pulp of aloe leaves openned with the cut of a sabre. That resulted in the new military expression: "to saber aloe". (Val-de-Grace archives). The ayurvedic (4) medicine of India has always held aloe in high estime as an integral part of Hindu pharmacopeia. It is considered as a sacred plant

⁽⁴⁾ Ayurveda or Veda of life. Traditional Hindu medicine whose recipies and formulas were part of the Atharvaveda. See page 11

and participated in the sacrificial rituals, and certain species were rigorously protected. Even today leaves of aloe are placed upon the funeral pyres as a symbol of eternal rebirth.

The Middle Ages and the Renaiasance

In the famous medical work of the school of Salerna, Constantine the African and his disciples gave a place to the theurapeutic virtues of aloe. Robert Dehin, in his book "Doctor Aloe", already cited, (see the bibliography) included this famous verse dedicated to this fetish plant:



It drys a wound, it revives the flesh
Of the sick prepuce it destroys the cancer
Purges the humour from the eyes, frees the head
The clogged ear and the coated tongue
Revives the vigour of a sick stomach
Stops the falling of hair and the langour
It relieves the liver and cures icterus.

It was during the Crusades that the Christian warriors from . the West discovered the virtues of aloe which their Moslem adversairies considered as a par excellent remedy. During their conquests, the Arabs introduced the aloe into Spain. It was thanks to the pulp of aloe that the Spanish sailors of Columbus' ship the Santa Maria, even though suffering from malnutrition and diseases, were saved. This incited Columbus to call it "the doctor in a pot". This encouraged all the sailors to carry aloe on their ships.

The famous doctor of the Renaissance, Paracelse, discovered the merits of aloe when at Salerno, then in Spain and Portugal. In a letter to Amberg, he spoke indirectly of "the mysterious and secret 'aloe' whose golden juice cures burns and blood poisoning". But it was especially the Portugese and Spanish Jesuit fathers who,

in the footsteps of the first explorers, cultivated and used the aloe in all their American, African and Middle East colonies for its curative properties. Their converted Indians called it "the tree of Jesus".

The American Indians (5)

The aloe plant along with the agave ⁽⁶⁾ was one of the 16 sacred plants of the American Indians. They cooked the leaves over hot coals to eat them; They used the pulp to stop bleeding and to heal wounds. The fermented gel was used to calm stomach pains, to clean the kidneys and the bladder, to dissolve stones, stop coughs, ease pneumonia and induce menstration.

In precolombian America, the young Mayan girls smeared their faces with aloe juice to attract the boys (and chase the parasites) just as the beauties had already done in antiquity. Before leaving for the hunt or for battle, the warriors rubbed their bodies with the pulp of aloe. For the Mazahuas, the aloe was a par excellent magic plant, for it healed he who ate it when he was sick, gave him strength by "inducing God in him" and cleared the mind of the insane, the drunk and the deranged.

A curious Maya tradition claimed that if the pulque,

⁽⁵⁾ Most botanists affirm that the aloe plant was imported and planted on the American continent by the Spanish conquerors. However, certain writings of Spanish travelers and authors at the time of the conquests mention the presence of aloe in America upon the arrival of the Europeans. Certain scientists think that the aloe barbadensis was native to Cap Vert and the Maderas and that it was carried to the Americas by sea birds and ocean currents. Aloe has often been confused with the agave, native to the Americas.

⁽⁶⁾ Agave (from "agauos", magnificent) A plant of the amaryllidace family, often confused with aloe and most particularly with aloe vera whose flowers are also yellow. The agave of Mexico was one of the sacred plants of the precolombian Indians, especially of the Mayas and the Toltecs. The leaves were used to make sisal and vegetable fibers and its "heart" was used to make a wine: the pulque which was distilled to make two much appreciated brandys: "mescal and téquila. The flower stem of the agave can reach 12 meters in height.

(wine of the agave) made one crazy, that "a wine of aloe cured it. The Jivaro Indians had named it "the doctor from heaven", for they believed that the sacred plant rendered the warriors invulnerable.

The healer or "ticitl" of the Nahuas, a sort of witch doctor, knew well the plants which gave power and those which healed. He treated wounds, insect bites as well as nake bites by using the "blood" of aloe. The Indians cured migraine by binding the head with a poultice of aloe. But, as we have seen, it was the Spanish Jesuits who really revived the use of aloe in the American colonies. They already knew the medicinal virtues of this plant long grown in the Andalousian monasteries.

The Far East



In Japan, the aloe is a royal plant. Dozens of species are grown for multiple uses. the juice is drunk and the plant is eaten and used in many ways. In olden times, the Samouraïs smeared their bodies with the pulp of aloe to chase away the many demons and to render themselves immortal.

Today, the pulp of *aloe saponaria* is used in cosmetics and soaps. The *aloe ferox*, *aloe thraskii* and *aloe marlothii* are used in the composition of numerous pharmaceutical and cosmetic preparations. The Chinese are as fond of aloe as their Japanese cousins. They use it in many forms.

Since many centuries aloe has been considered as a specific medicine for the treatment of burns and skin ailments.

The poet Lui Yu Xi (8th century) recounted how as a child he was healed of a persistent eczema, which no doctor was able to cure, by a traveling seller of herbs. He prepared a mixture of two thirds aloe and one third liquorice which cured him very quickly.

Aloe was included in the medicinal plants reserved for the Imperial family. It was included in the Ben Cao (1505), a work ordered by the Emperor Xiao Zong. The chinese pharmacopea of Li Shih-Shen (1518-1593) cites aloe among the plants with major therapeutic virtues and named it: the harmonious remedy.

The spines of aloe ferox were used as acupunture needles by the famous itinerent therapists: the "barefoot doctors". Let us recall that traditional Chinese medicine, always very precise in its pharmaceutical indications and formulations, also prescribed very strict rules for the use of the medicines. The phases of the moon, the height of the sun and the exact time of day were part of the prescription. Today this concept is used by adepts of alternative medicines and even by some general practitioners. In modern Chinese medicine, the pulp of aloe sinensis is used in the treatment of arteriosclerosis.

From legend to science

In numerous countries where modern western medicine has not completely replaced traditional medicine, aloe is still the par excellent medicinal plant. Local traditions often attribute protective and happiness virtues to this magic plant. Upon their return from their pilgramage to Mecca, the Moslems hang leaves of aloe brought back from Mecca over their doors as proof of their visit, with the hope that the prophet will one day visit them. For the Africaners and the Zoulous aloe is "the plant which cures all". Certain desert tribesmen make a liquid soap of aloe

which they use on their body and hair, this gives them a replendant skin and abundant and luxuriant hair. Carol Miller Kent, in his book "Aloe Vera" claims that a salve for treatment of burns was part of the pharmacy carried on the space capsule which landed on the moon in 1960. The work of the Soviet biologist Israel Brekhman, long kept secret, proved the efficacy of aloe in treating atomic irradiation

It is Brekhman who proposed the concept of "adaptogene" to explain its regulatory effect on the organism. The secular reputation of aloe and the reknown of its legendary virtues have of course incited numerous scientists to study its medicinal properies and therapeutic effects. In spite of their bias against the "old ladies" remedy, they had to admit, not without surprise, that many of the legendary virtues were not at all imaginary and, moreover, they had found new ones.





THE PIONEERS OF MODERN RESEARCH

American research

It was Smith and Stenhouse who first identified, in 1951, one of the principle active substances of the plant which they named "aloin" (7). In 1912, H.W.Johnstone, a planter in the state of Kentucky, observed with surprise the curative virtues of aloe when several workers on his plantation were severely burned and were treated by the women with the pulp of aloe.

He then decided to cultivate and commercialize it in the form of an ointment.

During the 1930's, Creston Collins and his son rediscovered the virtues of aloe scientifically in the healing of numerous aliments. They reported in a now famous article the capability of aloe vera (barbadensis) to palliate the bad effects of the radiations engendered by radiotherapy.

After the 1930's, many researchers began to study the chemical composition of the plant scientifically. Among them, in 1938, Chopia and Gosh identified the primary active elements: aloin, emodine, chrysophanic acid (or anthraquinone*), gum resin and traces of volitale and non-volatile oils.

In 1942, Rodney M. Stockton, a chemical engineer was on vacation in Florida where he contracted a severe sunburn.

⁽¹⁾ Aloin: In the 19th century official European medicine considered essentially the purgative virtues of aloe vera, which was attributed to the aloin contained in the skin of the leaf. Only the empirics in the countries where the aloe grew had learned to use the translucent fresh pulp.

A friend immediately treated the burn with the gelatineuse extract from an aloe leaf. He was surprised to note that the pain disappeared immediately. Intrigued by the speed of his recovery, Stockton decided to study the phenomenon.

Thus, in 1947 he moved to Florida and made numerous experiments to verify that the "miracle" was reproductable. He found that it was! He then worked on the problem of the stabilization of the gel and developed an aloe based salve effective in treating burns. The salve was popularized by a nationwide television show.

Towards the end of the 1950's, Bill C. Coats, a Texas

pharmacist who had passed many years studing this plant, was able to stablize the fresh pulp of aloe vera by a perfectly natural process. He patented his secret method which consisted in the incubation of the pulp for three days at variable temperatures and adding vitamin C and E, plus sorbitol, all of which are efficient antioxydents. This discovery enabled him to commercial his product. It is thus that aloe vera has been able to conquer the world for the benifit of all.

Bill Coats has published several works where he explains his researches in detail. (See: Culture and transformation of aloe, page 30 and Bibliography page 101).

New discoveries

During the past 25 years, the research concerning the many properties of aloe vera have progressed rapidly. In 1984, some studies conducted by Ivan E. Danhof, a former physiology professor at the University of Texas and chief of the Research Laboratories of North Texas, have shown that the application of aloe gel on tired skin, accelerated the production of human fibroblasts* 6 to 8 times above the normal cellular reproduction speed.

The fibroplasts are the cells responsible for the

fabrication of collagene, the primary proteinic support of the skin, whose activities condition the aging of the skin and the birth of wrinkles.

According to Danhof, it is the polysacharides of the aloe pulp which help in the reorganization of the thin protective barrier contained in the thin corneous layer of the epidermis.

Doctor Danhof was able to show the fantastic rehydration virtues of the aloe whose gel, which is made of 95% water, helps it penetrate 3 to 4 times faster than ordinary water into the skin.

It is the Japanese doctor Fujita who has shown that the bradykinase is the enzyme* responsible for the remarkable anti-pain, calming and healing action of aloe vera, and not just the salicylic acid as was formally thought. (see p.37).

In 1985, doctor Bill McAnalley isolated a polysaccharide taken from the aloe vera which he named "carrisyn" (8). At the same time Canadian researchers discovered an active molecule possessing remarkable antiviral properties which they named "acemannon".

Clinical tests on patients with Aids showed that carrisyn could stop the pregression of the virus.

This was collaborated by the studies of several other researchers, notably by doctor Reg McDaniel who showed that contrary to other treatments, the one based upon carrisyn showed no secondary effects. This was senstional news. Doctor Reg McDaniel affirmed: "it seems that the carrisyn neutralizes the Aids virus by transforming its protein envelope, thus preventing it from attacking the T4 cells. (Preliminary report published in 1987 in the Clinical Research review).

⁽⁸⁾ Carrisyn is the commercial name filed by the Carrington Laboratories for an aloe based medicine.

The Carrington Laboratories obtained the right to experiment carrisyn on human patients. The results were encouraging. In parallel to these American researches, several Russian scientists also continued their researches. Professor Brekhman,the ophtalmologist Vladimir Filatov and the neurologist Serge Pavlenko, plus many others, also studied the surprising medicinal effects of aloe treatments.

Wolfgang Wirth, in his book "Healing with aloe" recounts this epic, which we summarize below.



The secrets of Russian aloe

Professor Vladimir Petrovitch Filatov (1875-1956), a Russian ophtalmologist from Odessa, a specialist in tissue grafting, was one of the modern pioneers in a therapy based upon aloe. He was named professor of ophthalmology by Tsar Nicola II. A dynamic researcher and full of curiosity, Filatov was not content with just following the rules of traditional medicine. His motto was: "It is he who heals who is right".

Without a priori or dogmatic bias, this genial surgeon and researcher studied different non orthodox therapeutics which his equals considered with distain as magic superstition. He was impassioned by the study of homopathy, naturopathy and energies.

He was also in favour of unitary medicine which had a total (holistic) view of man and his many maladies. For him, chemiotherapy and the use of plants to cure were complimentory and each had as many qualities. He insisted that they should be used together to arrive at a cure rather then opposing them stupidly in sterile controversies. He said: "There where a method does not work, one must try another! For all diseases there exists a remedy. It is up to the doctors to find it!"

During his trips to the Caucasus and Siberia, he always studied the local medicinal plants and the know-how of the local healers.

After the October Revolution, Filatov was able to continue his researches under the Soviet regime and named his methods "dialectic medicine" so that the political commissars and the official mandarins would leave him work in peace.

Filatov considered that the opposition between the empiric healers and allopathic medicine was a false problem. He advocated the teaching of healers the rudiments of science necessary to understand modern medicine and to also give medical students a wider training which would permit them to also better understand the traditional popular medicine.

He was a pioneer in Keratoplasty (corneal transplant).

The primary discovery by Filatov was that the transplant of a fragment of a healthy cornea on a cornea having become opaque because of a cataract, that the sick cornea became transparent again. He had also noted that this process was just as rapid when the transplant was taken from a dead body and kept at a temperature of 2 to 3 degrees. In this way Filatov was able to cure a great number of cataracts and keratosclerosis of syphilitic origin. He made over four thousand successful corneal transplants. Intrigued by the paradoxical fact that a graft taken from a corpse seemed to be more efficient than one taken from a live person, he thus continued his researches in this direction.

He noted that the tissues properly conserved in cold continued to live and to form active substances destined to palliate their traumatism. Thus, a tiny fragment coming from a dead person was able to regenerate a sick tissue of a living body. He gave it the name of "biogenic stimulators". He was of a curious nature so he also studied plants, and especially the ginseng, "the divine

plant", then aloe, notably Aloe arborescens Miller, abundant in southern Russia. He was able to observe the surprising curative effects in the therapeutics practiced by the traditional healers of Central Asia.

He experimented to see if his theory of biogenic stimulators also applied to plants and, after hundreds of very successful experiments using aloe, he retained the following technique:

He cut an aloe leaf and conserved it in a refrigerator at a temperature of 2 to 4 degrees. He then extracted some pulp and injected it under the skin of the sick patients. He found that this extracted juice produced the same curative effects as the transplant of tissue taken from a dead person! (9)

Filatov then deduced the hypothesis that: "all brutal deterioration in the living conditions of an animal or vegetable organism provokes in this organism the secretion of biogenic stimulators which are vital regulators with very astounding therapeutic properties".

He also observed with surprise that the same aloe leaves treated in an autoclave at 120 °C conserved certain of their properties even though their enzymes had disappeared.

Filatov then concluded that it is not the grafted cornea or extract of the aloe pulp which provoked the healing process, but it was the biogenic stimulators which they contained.

Even though he confirmed their curative effects, Filatov was unable to explain what were these biogenic stimulators and how they functioned.

⁽⁹⁾ Let us note that such a treatment requires an application in perfect hygienic conditions and under strict medical control. All self treatment in this domain must be forbidden. All injection of doubtful origin effected under imperfect sterile conditions by inexperienced persons not authorized to practice medicine must not be allowed. (M.S.)

Always faithful to his principle that: "it is he who cures who is right", Filatov then treated innumerable patients with aloe based preparations (biostimulated aloe) and noted that the aloe plant stimulated the pysiological functions of the organism and also considerably augmented its immunitary defenses.



Doctor Max Brandt tried to explain this process in this way:

"The mechanism of the functioning of the biogenic stimulators found in aloe react on the central nervous system. If the aloe provokes a lengthening of the active time of the conditioned reflexes, it also induces a weaking of their force and goes as far as their complete disappearance. One can therefore speak of an increase in the inhibition process in the central nervous system as already described by Pavlov.

The slowing down in the activity of the cerebral cortex, which is produced under the effect of the aloe, is considered by many well known researchers as a protective therapeutic slowing down [...] All the clinical data shows an important biological activity of the aloe and a certain effect of the biogenic stimulants on the central nervous system." (10)

After the death of Doctor Filatov, several of his students continued his work. Doctor Woljinski studied and developed a health care technique based upon aloe which succeeded in curing the most difficult cases of sciatica. Doctor Kurako also had excellent results in treating the cases of inflammation of the spinal cord.

⁽¹⁰⁾ W. Wirth: Healing with aloe: edition Wilhelm Ennsthaler (Diffusion Soleils).

In geriatrics, Doctor Kalmanovicz was able to establish a decrease in the phenomenon of asthenia and a remarkable increase in the intellectual capacity of aged patients which he was treating with aloe in his clinic.

According to Doctor Brandt, the discovery of the biogenic stimulators by Filatov now furnishes the proof, which was missing before, of the efficacy of therapeutic treatment with aloe. Today it is an integral part of traditional medicine in many countries.

According to him, the therapeutic based on aloe can be considered as a veritable turning point in biological medicine.

It is efficient in the treatment of the eye diseases. It also increases the visual capacity and stabilizes it. It cures or at least considerably relieves those suffering from asthma. It has a positive effect upon those suffering from diseases having a relation with weaknesses in the immunitary system such as cancer, multiple sclerosis or Aides. It improves the quality of life of the aged. It seems that they have recently discovered the active molecule in aloe which gives a very astounding result in the treatment of burns and atomic radiation. Therefore, aloe offers an excellent prophylaxis in radiotherapy.

Doctor Brandt estimates that the active agents in aloe correspond to the micro-substances of our body which it compensates in case they are lacking.

"Formerly the aloe was used in the composition of most of the elixirs, balms, eye lotions and other preparations in official medicine and in home and popular remedies. If it is again becoming à la mode, it is by the open front door, which is only justice."

(Dr. William R. Robertson)

CULTIVATION AND TRANSFORMATION OF ALOE



The aloe plant grows freely in semi-desert regions with hot climates. It prefers dry, sandy and calcareous soil. Relatively easy to grow, aloe vera (the primary medical species), known as "the vegetable doctor" in America, is grown today in farms of thousands of acres throughout the world (11).

The discovery of the new properties (other than laxative), and the reliable process of stabilization of the gel contained in the leaf, resulted in a great increase in the demand, a veritable boom.

In our modern civilization, where biotechnology and scientific medicine have replaced the empirical yet often excellent diagnostics of the good family doctor, aloe, this secret and seductive plant, must find a place in each household. It can help us to avoid treating our minor ills with questionable antibiotics.

Since in the regions with temperate of cold climates, it is not always easy to grow the plant in a garden (or on the balcony), for it is a tropical plant, there exists today on the market a range of aloe products which are perfectly natural and healthy and whose qualities are very close to those present in the fresh aloe pulp.

⁽¹¹⁾ Aloe Vera of America is the most important company in the world producing aloe. They use a completely natural method of production. Today, this company belongs to Forever Living Products group.

Manufacturing

The procedures used in the manufacture of the extracts of aloe have evolved a lot through the centuries. The Arabs placed the pulp extracted from the leaves into goat skin bags and let it dry in the hot sun until it was reduced into a resin. The residents of the island of Socotra ground the dried leaves into a powder. The colonist of Jamaica cooked the leaves in pots and used the concentrated juice.

The slaves of Barbados cut the leaves from the plant and hung them over a pot to collect the juice, then boiled it to reduce it to the consistancy of molasses.

Today, even though here and there the aloe leaves are still harvested by hand, the big companies specializing in aloe use modern machines to cut, manufacture and distribute a pure product.

Since the viscous gel contains the most active elements of the plant, American companies have developed a new semi-automatic process of extraction of the gel. This avoids the mixing of the aloin (12) and several other undesirable substances with the medicinal gel.

In any case, the key to a good aloe gel does not only depend upon the method of extraction, but also upon the method of stablization and conservation.

Conservation

The pale translucent pulp of aloe is very unstable. If left exposed to air it oxidizes rapidly, which destroys most of its therapuetic properties.

Even if kept in a refrigerator, the pulp spoils rapidly. That is why the veritable problem concerning its commercialization was its stablization. Certain tried

⁽¹²⁾ Let us recall that we must differentiate the yellow-red sap present under the outer skin of the aloe vera, which contains a high percentage of aloin, from the translucent gel of its central mucilage.

exposing the gel to ultraviolet light but it was quickly abandoned since it modified the chemical composition.

Then pasteurization was tried. The gel was heated at 60° C, after having added hydrogen peroxide, but without success.

Certain researchers tried cold drying under vacuum which gave reasonable results for the gel retained most of its good properties once rehydrated. Others tried dehydration at very high temperatures. They also tried irradiation, but as with fruits and vegetables the method was abandoned since the eventual consequences upon the organism were not known. In any case, non of these methods gave a sure means to conserve the natural properties of the gel treated, in particular the vitamins and the enzymes which are the important part. It was Bill C. Coats, the founder of the company *Aloe Vera of America* who patented the most performant technique for the conservation of the gel.

The method consists of adding vitamin C (ascorbic acid), vitamin E (tocopherol) and sorbitol to prevent its oxidation, then incubating the aloe gel in a vat. By doing this at precise tempertures (13), he obtained an ideal chemical reaction which resulted in a perfect conservation of the product.



⁽¹³⁾ These temperatures have not been disclosed, but they do not exceed 37° C. and they do not deteriorate the medicinal properties of the gel.

THE MEDICINAL PROPERTIES



et us recall that in the so called advanced countries, a new medicine or a preparation made from plants is not accepted by official medicine if its exact chemical composition is not known. Thus, a plant such as aloe vera, which has proven itself through many centuries and belongs to the traditional pharmacopea of the healers and herbalist throughtout the world, cannot be officially recognized unless it passes the tests of the experimental protocols. In face of the ferocious competition among the large pharmaceutical companies, it is easy to understand, with the enormous financial interests in play, why they are able to prevent the marketing of excellent and inexpensive natural products. It is more than evident that a plant which in warm countries can be found in nature or grown on a balcony or in a garden, which has the capability of curing numerous maladies, can produce disorder in the panorama of international "medical business"!

Aloe was used for a long time in the form of a powder made from the dried leaves, thus it was easily transportable. In the countries where it was produces, they also used the pinkish juice from the outer cover of the leaf. This first aid method is still used in the antillies and many other third world countries.

As mentioned above, it is only very recently that they have been able to stabilize the active but unstable gel of the inner pulp, thus to considerably prolong its active usefulness. Today it is this mucilagenous gel of the leaf - the most active part of the aloe leaves - which is used.

The aloin found in the sap of the pericyclic cells of aloe,

which is cholagogic*, stomachic, laxative and purgative* was considered by the ancients as a veritable elixir of long life. But there were very few users who considered a difference between the yellow-reddish juice and the colorless gel of the interior of the leaf. Now, it is this gel which is astringent*, bactericide*, healing, fungicidal*, anti-inflammatory, hemostatic*, and virucidal. It represents the most active part of the plant. It aneasthetizes tissues, stops itching and heals insect bites. It is also an effective agent against fever, cures constipation, dilates the capulary vessels and purifies the blood. In dermatology, the aloe gel revitalizes the tissues, digests the dead cells and hydrates the skin by penetrating deeply into the skin.

During the last half century, various researchers have enriched the already long list of traditional properties: aloe vera is now revealed as an excellent biological regulator and as an immuno-stimulant. It is appreciated for its faculty of accelerating the cellular regeneration after an operation.



For several years now, some American doctors affirm that they obtain good results in the treatment of certain cancers and Aides.

But let us be prudent! This reputation as a "miraculous" plant, these praises and these dithyrambes are they not just too much? Is it not all just a pretty legend? Perhaps it's a vulgar propaganda campaign in favour of the promotion of the numerous products based on aloe; which are more or less pure and more or less effective, and which are now offered the world over? (See: How to choose the products? page 75).

In any case, the rich contents in vitamins, mineral salts, in amino acids, in enzymes and in various nutritive elements makes this leaf of aloe vera, and especially its pulp, a complete energetic food. Numerous testimonials verify its surprising

action in "regulating weight" offered by a prolonged cure of aloe vera. It also acts as a natural regulator of appetite for the bulimic and fat, and yet it also stmulates the appetites of the anorexics.

The fact which pleads in favour of the intrinsic virtues of aloe is that its use has been adopted by peoples the world over: in Egypt, China, India, Europe, Africa, the Middle East, Madagascar, America and Australia.

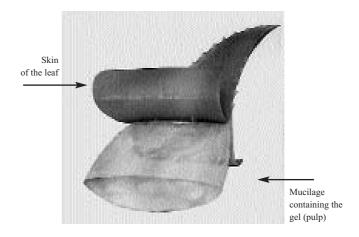
It is evident that the "magic" reputation repulses and annoys a majority of the scientists. They are the same who make fun of alternative medicine and deny the effficiency of most of the natural therapeutics which they classify as placebos*. This does not stop a great number of pharmacists, biologists and serious doctors from studying aloe and arriving at confirming certain of its legendary properties! They have even discovered new virtues, in particular its nutritive properties.

During this début of the 3rd millenium, more than a thousand demands for patents have been made concerning the active molecules discovered in *aloe vera* by many pharmaceutical laboratories throughout the world. Several dozens patents are in the process of being granted.

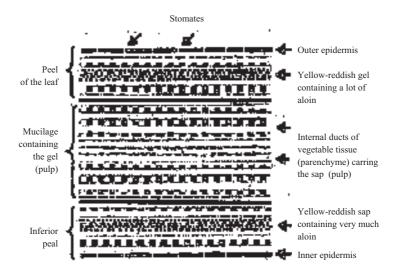
(Dr. Jean-Pierre Willem)

THE LEAF OF ALOE VERA

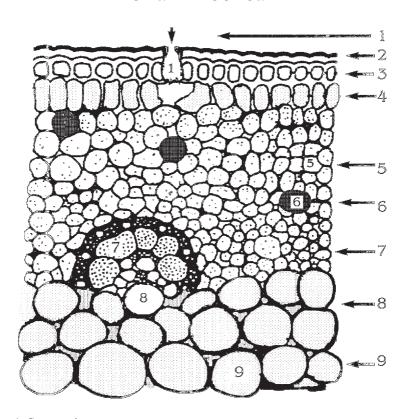
Document provides by the company: FLP France



CROSS SECTION OF A LEAF



A transversal cut of an Aloe leaf



- 1. Somates*
- 2. Cuticule*
- 3. Epidermis
- 4. Palissadic tissue
- 5. Exterior parenchyme
- 6 Calcium oxalate cristals
- 7. Pericyclic celle contiaining the yellow/reddish blood (aloin*)
- 8. Transveral connections of the vessels
- 9. Parenchyme viscous pulp containing the active colorless gel.

Document furnished by Donesta Promotion (Nyon-Switzerland)

THE COMPOSITION OF ALOE



The "lignines" penetrate easily into the epidermis but their exact function is not known. The "saponines", discovered in 1951 by Wasicky and Hoehne, are hétérosides* (glucides) having an antiseptic and saponific action. The "anthraquinones" have been known for a long time for their laxative and analgesic* action. During the last few decades, researchers have confirmed their bactericidal and antibiotic* qualities free of all toxiticy.

A) Lignine, saponines, anthraquinones

Aloine: a cathartic* and emetic*.

Barbaloine (barbalitic glycoside) : antibiotic and cathartic.

Isobarbaloine: analgesic and antibiotic.

Anthranol and **Anthracene** : *dioxygene fixant*.

Aloetic Acid: antibiotic.

Emodine of aloe: bactericidal and laxative.

Cinnamic acide : *detergent, germicide and fungicide.*

Ester of cinnamic acid : pain killer.

Etherial or **ether oil** : analgesic et anaesthesic.

Chrysophanic acid: fungicide (skin).

Aloe ulcine: inhibits gastric secretions in reaction with histamine.

Résestanole : anti-inflammatory action and bactericidal. Acts as a natural corticoid.

B) Vitamins

Vitamin A (carotin or retinol): *Improves vision, aids* the health of the skin and protects the cells against free radicals*.

Vitamin B1 (thiamine): needed in growth of tissues and the production of energy.

Vitamin B2 (riboflavine): acts in common with vitamin B6 in the formation of blood.

Vitamin B3 (niacine): aids in the regulation of metabolism.

Vitamin B6 (pyrodoxine) : As vitamin B2.

Vitamin B9 (Folic acid): Anti-anemic, aids the regeneration of red blood cells.

Vitamin B12 (cynocobalamine) (14): indispensible in metabolism. Energetic factor in nutritive functions of the body and favorizes the formation of red corpuscles.

Vitamin C (ascorbic acid): in association with vitamin E it combats infections, aids in healing and maintains skin health.

Vitamin E (tocopherol) see vitamin C: protects cell membranes.

Choline (vitamin of the B complex) : coronary vasodilator and an aid in metabolism.

Let us note that aloe stablized in a cold method retains the A, C, and E vitamins which have been added during the stablization process.

⁽¹⁴⁾ Let us recall that vitamin B12 rarely exists in plants and that it is produced in the intestines in necessary quantities. It seems that aloe contains only a very small quantity but it remains controversial. Robert Dehin, who is well informed on the subject and who published an article entitle: "Aloe vera: full of vitamin B12" has changed his opinion. Yet, Dr. Arnold Fox of Beverly Hills, California recently confirmed in the magazine "Total Health" the presence of vitamin B12 in aloe vera. In an experiment with vegetarians, he showed that when regularly consuming aloe they remained in perfect health.

C) Minerals

Aloe vera contains more than 20 different minerals, all essential to the human organism.

Calcium: Bone growth in association with phosphorus.

Phosporus:: bone growth in association with calcium.

Potassium (sorbate of potassium): regulatory action of hydoelectrolytic equilibrium of the liquids in the organism.

Iron: enters into hemoglobine and aids in oxygen fixation;

Sodium: maintains acid-basic equilibrium of organic liquids and favours the metabolism of water in cells and tissues.

Chlorine: antiseptic and disinfectant.

Manganese: in association with magnesium, maintains the proper functioning of muscles and the nervous system.

Magnesium : (See manganese).

Copper: an oligo-element indispensible for the maintenance of the equilibrium of the organism.

Chromium: favours the action of the enzymes of fatty acids.

Zinc: stimulates the action of the proteins in healing.



D) Mono and polysaccharides (glucides)

Cellulose - Glucose - Galactose - Mannose -Aldonentose - Uronic acid - Lipase - Aliinase -L-rhamnose.

E) Amino-acids

The amino-acids are proteins which furnish energy and act as catalizers (notably in hydrolysis) to regulate chemical equilibrium and act in the regeneration of tissues.

The human body contains 22 amino acids of which 8 are said "essential" since our bodies cannot manufacture them. *Aloe vera* contains 7 of the 8 essential amino acids and 11 of the socalled "secondary" which the body synthesizes from the 8 essential amino acids.

Essential Amino-acids:

Isoleucine - Leucine - Lysine - Methionine - Phenylaline - Theonine - Valine.

Secondary amino-acids:

Aspartic acid - Gultamic acid - Alnine - Arginine - Cystine - Glycine - Hystidine - Hydroxiproline - Prolinee - Serine - Tyrosine.

F) Amino-alcohols

Choline: Lipitrope* amino-alcohol and a coronary vasodilator, it helps in metabolism.

G): Enzymes*

The oxydizing enzymes of aloe reduce the basic elements.

Amylase: catalyses the hydrolysis of starch into destrine then into maltose. (Lar.)

Bradylinase or bradykininase: analgesic, antiinflammatory, stimulant of the immunitary defenses.

Catalase: prevents the accumulation of oxydizing water in the tissues.

Cellulase: facilitates the digestion of cellulose.

Creatine phosphokinase: muscular enzyme.

Lipase: facilitates digestion.

Nucleotidase: catalyzes the hydrolysis of nucleotides into nucleosides. (Lar.)

Phosphatase acid: marker of prostrate cancer.

Phosphatase alcaline: liver function regulator.

Proteolytase: hydrolysis of proteins into their constitutive elements. (Lar.)

Aloe also contains salycylic acid, chrysophanic acid, volital oils, etc.

During the last few decades, researchers have isolated numerous other active molecules in aloe vera, such as **aleomannan** and **acemannan** (15) which reenforce the immunitary system.

Other substances, such as: aloetine, aloelucine and aloeicine have been discovered by the Japanese doctor Momoe Soeda.

Aloetine is a remarkable germicide which neutralizes the toxicity of numerous germs.

The aloelucine, a magnesium lactate, resists acids,

⁽¹⁵⁾ Acemannon: a powerful long chain macromolecule polymer immunizer, water soluble, which increases the production of microphages, factors in the elimination of tumors. They have observed in vitro that it augments the macrophage phagocytose and accelerates the activity of the T cells. Moreover, it increases the production of cytokinine by the T cells. (Peter Green, in Veterinary Times, 1996)

alkalis and heat and it activates the cellular regeneration and accelerates the healing of ulcers. It seems that aloemicine has an anti-tumor action useful in the treatment of certain cancerous cells. As for *aloesine*, it is said to have a certain bactericidal action.

Without a doubt, the future reserves other surprises for us!



DEBATES AND DISCUSSIONS

In the world of scientists and "experts" of aloe, there existrecurrent and lively debates and controversies:

Q - Which aloe plant possesses the most virtues? Aloe vera, Aloe arborescens or Aloe ferox?

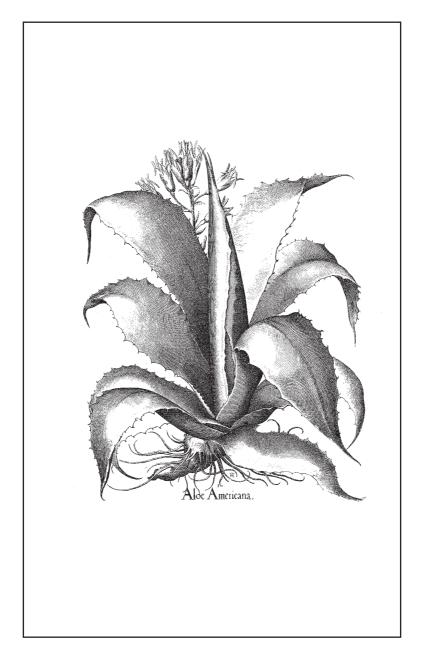
R - Serious researchers who have studied the three species and several others, have cofirmed that each one has slightly different active properties but they remain very close in general. What is essential is to consume products which are fresh or correctly stablized.

Q - Should one consume the fresh pulp (gel) extracted from the parenchyme of the aloe leaf or the filtered juice coming from the mixing of the entire leaf?

R - The opinions of the "experts" diverge. Some say it is the juice extracted from the leaf that one should drink. Others say that the medicinal and active properties of aloe are found in the parenchyme in which the aloin content is moderate. On the contrary, formally they preferred the vermifuge and laxative properties of the aloin which isconcentrated in the dermis and epidermis.

Q - Pulp from the fresh leaf or stablized pulp?

R - The debate is still open. After the innumerable studies and the testimony of many users, we think that if one lives in a warm country where aloe is grown, one should make one's own preparation from the fresh plant. Otherwise, today their exist on the open market high quality and easy to use products.



SOME MEDICINAL ALOE



Aloe socatrina

The aloe from the Island of Socotra with its red flower was the most known in the world. It was sold in the Mediterranean world and eastward to China for many centuries by the Arab merchants. It was sold in the form of a powder and was highly considered for its therapeutic and magic powers.

Aloe vera (Linné) Aloe barbadensis (Miller) or Aloe vulgaris

In the 17th century, the English grew aloe on a large scale on the island of Barbados in the Antilies. In the form of a powder, it was commercialized for its laxative virtues. This industry declined when it was sold at an unbeatable low price by the Dutch settlers of South Africa.

There exist two varieties of aloe barbadensis: the green and the blue. The leaves of the green variety have a bright green color trimmed with clear spots. The plants form a shoot at the end of the first year, which slows down its growth. Thus this variety is not ready for medical use until the third or fourth year.

The two varieties have more or less the same medicinal properties.

Aloe africana or capensis (Cap aloe)

The Cap aloe and its cousin the Curação aloe cultivated by the dutch farmers was, until the end of the 19th century, one of the most sold aloe in the world. It was slowly replaced by *Aloe vera*. It was sold primarily in the form of a powder or of a dried gel.

Aloe ferox

It is, along with the aloe vera and the aloe saponaria, the most grown and used in South Africa, Japan and China. It is used in medicines, cosmetics and in cooking. It is eaten both raw and cooked. Its pulp is filtered and flavored and drunk for the energy and vitality it procures.

Aloe arborescens Miller

This is the aloe which grows wild in the southern regions of the former USSR, as well as in central Asia. It is the one most studied and used by the Russian researchers and pioneers. Its active medicinal properties were described by the ophtomologist Vladimir Filatov and the biologist Israel Brekhman. Its flower at the end of a meter long stem has a color going from pale to bright red.



Aloe arborescens Miller according to Rolf Grantgau (DR)

VARIOUS USES OF ALOE

The fresh pulp (juice) of an aloe plant can be taken internally or used externally. Aloe vera desinfects and helps healing of wounds, aids digestion, activates blood irrigation, aids lymphatic circulation, aids kidney as well as liver functions and calms arthritic and rhumatism pains. It is among the top remedies in the care of sunburns, ordinary and radiation burns and all sorts of wounds. Aloe is a good hemostatic and an excellent desinfectant.

External usage: To use a fresh leaf, first cut it at the base, cut off the neddles, cut it and extract the gel, which is not easy. It is much easier to have on hand a commercial stablized gel to be used in treating domestic incidents and minor ills.

Internal usage: drinkable aloe juice is a good intestinal transit regulator, a stimulator of immunitary defenses and an excellent food complement containing many vitamins and oligo-elements. In some countries the aloe pulp is sometimes adminsitered by prescription and under medical control as a subcutanious injection.

Liver ailments:

Drinkable aloe juice is an excellent remedy against liver ailments. It improves the hepatic function and is a remarkable antidote against excess alcohol. It is also recommended as a preventative of cirrhosis of the liver.

Alergies

It is proven that the fresh pulp of aloe vera combats the itching associated with allergies, insect bites and their after affects in both man and animals.

Arthritis, arthrosis, rhumatism, back pains

Baths* of aloe ease arthritic and rhumatismal pains. Certain therapists recommend a light massage of the painful region with a gel of aloe or an aloe based salve and a prolonged cure of drinkable aloe pulp mixed with fruit juice and honey.

Numerous testimonials made by patients suffering from chronic arthrosis confirm that the application of aloe vera relieves the pain. Some patients have even been able to recover the use of their arms and legs after an intensive cure including drinking of the juice and the local applications.

Bronchitis and asthma

The breathing difficulties and coughing induced by these two ailments find an excellent remedy in aloe. Used as a vapor, the aloe vera aids in the absorption of excess mucus blocking the bronchi. Used internally, the aloe juice eases asthmatic cough and can cure chronic bronchitis without any secondary effects. Associated with hypnosis or yoga, aloe can relieve asthma attacks due to allergies.

Burns

It is probably in the treatment of skin burns where aloe gives the most spectacular results. As shown by studies effected by Dr. Martin C. Robson and John P. Heggers at the Chicago Burn Center - "whether it be of burns caused by fire, cold, boiling water, the sun, electricity or radiation, aloe relieves the pain, prevents infection and avoids complications. Besides, it is its capability the regenerating of the irradiated tissues. This has given to aloe vera its reputation as a miricle plant in both the United States and Russia.

Dermatosis

One of the main fields of action for aloe vera is in modern dermatology. There it has the reputation of being effective against seborrhea, herpes, eczema, mycosis, fever blisters and can even ease psoriasis.

Diabetes

This grave chemical disease which provokes a high concentration of sugar in the blood is the cause of grave consequences. The most common manifestation is the appearance of sores and ulcers on the feet and legs caused by circulatory problems. Today, they have found that an internal treatment with aloe vera juice and external application of the juice, associated with a proper diet and a healthy life style, can regenerate and rebalance the deficient organism.

Articular pains

According to certain medical studies, it has been shown that aloe vera eases articular pains by slowing down the deposit of calcium in the tissues;

Stomach and Intestines

The aloe vera juice protects the organism against gastric ulcers, eases digestive difficulties and aids the intestinal transit.

A renewed cure of drinking stablized aloe juice is tops against colitis.

Eye problems

The beneficial effects of aloe vera in the hygiene and treatment of the eyes has been known since antiquity. In his work "De materia medica" the famous doctor Dioscoride (1st century A.D.) praised aloe as a cure for eye problems.

In the 19th century, the famous French chemist François Raspail (whose name has been given to a street, a square and boulevard) praised the benefits of aloe and camphor in his book "Le manuel de la santé". For the care of the eyes he recommended a wash of fresh aloe juice desolved in fresh spring water. (this resulted in his being charged with illegal practice of medicine) (16).

In the 20th century, the ophtalmologist Filatov obtained remarkable successes in the treatment of grave occular diseases with aloe based preparations. In England, the ophtalmologist Nevel Baron spoke of the aloe juice as the "miraculous drops" for the treatment of the eyes. He was amazed at its power to absorb the ultraviolet rays with just a few drops placed in the fragile eyes. He compared it to a pair of liquid lenses.

In the well known *New England Journal of Medicine*, Dr. Jerry Lawrence states: "The translucent gel contained in a freshly cut aloe vera leaf is a sterile painkiller; A few drops in the eye quickly calms the pain and heals the eye."

Tuberculosis

Because of the recent increase in the number of cases of this disease which one thought was irradicated, it would be useful to recall that aloe was always a part of the traditional pharmacopea treatments of this disease. The Russian doctors used it efficiently and obtained cures based upon drinking of fresh aloe juice and the inhalation of the vapor of boiled aloe leaves.

⁽¹⁶⁾ In his conferences, Raspail liked to say: Above the diaphragm camphre remains the best remedy, below it is aloe. But for the face there is nothing better than aloe and olive oil".

Cancer and Aides

Since the publication of our first article concerning the virtues of aloe and the first edition of this book, we have received some interesting information.

In the magazine "Terre Sainte", published in four languages in Jerusalem by the Franciscan order, they presented an article in the 1990 May/June issue describing some astounding healings of cancer obtained over the past 7 years by father Romain Zago in Bethlehem. (See P 83: The miracle of aloe and honey).

Mrs. Grazyna Gerliez-Silly, a corrispondant in Paris of a Polish newspaper furnished us a document reporting how father Czeslaw Andrzej Klimuszko had become famous in Poland for his treatment of cancer and certain incurable diseases with a mixture of aloe, honey and wine.

Certain scientific studies in the United States and Canada by researchers in large pharmaceutical laboratories have shown that aloe contains several active agents which reenforce the immunitary defenses of the organism.

We are awaiting further reports confirming this, for many researches are still in the experimental stage. But it is certain that a prolonged cure of 3 or 4 cl of stablized aloe juice, taken just before each meal, gives an excellent first class stimulant and reconstituant for the organism.



What some famous men had said about aloe



Christopher Columbus (1450-1506)

Four vegetables are indispensible for the life of man: wheat, the grape, the olive and aloe; the first nourishes, the second gladdens him, the third harmonizes him and the fourth heals him.

(recounted by Salvador de Madariaga).

Paraceles (1493-1541)

The plant named aloe is a veritable pharmacy capable of healing numerous diseases.

François-vincent Raspail (1794-1878)

I have been administering aloe for almost 20 years. I have been able to note that there are numerous sicknesses singularly characterised by the antic doctors, which were cured before my very eyes just by giving aloe in the form of a jel or powder. The good results which I have always obtained thus force me to repeat the adage of Bacon:

Would you like to live as long as Noe? Take some pills of aloe.

Mahatma Gandhi (1869-1948)

You ask me what is the secret of the forces which maintain me during my long fasts, well, it was my unshakable faith in God, my simple and frugal life style and the aloe whose benefits I discovered upon my arrival in South Africa at the end of the last century.

(Letter to Romain Rolland)

MEDICINE IN SPORTS

loe vera has proven to be an very effective product in the treatment of various problems inherent in sports activities. It is sovereign against blisters, irritations of the soles of the feet and the toes and perspiration odors. It is equally indispensible in the basic treatment of sprains, tendinitis, dislocations and lumbago.

The primary virtue of aloe vera is its capacity to alleviate immediately the pain thanks to its calming and analgesic virtues. As already mentioned above, some recent research has also shown the great tonic and energetic power of aloe juice. It gives the top level athletes the means to improve their performance without being accused of taking drugs.



Some examples concerning *Aloe vera* included in medical magazines :

Doctor Jonathan B. Irving, from Chicago, Illinois, treated hundreds of patients with stablized aloe vera for various ailments such as: sunburn, abrasions, contusions, tendinitis, hygroma* and muscular spasms. He compared the results obtained with those obtained with other current pharamceutical products.

The criteria of comparison retained were: reduction of pain, anti-inflammatory action, improvement in mobility and time needed for a complete cure. In all the cases he had as good or better results with the aloe vera as with the other current products. In no cases did he observe toxic reactions or counter indications.

In 1992, Dr. David E. Cormak published an article in a California medical bulletin concerning the treatment with stablized aloe vera in 200 cases of abrasions, 75 cases of contusions, 85 cases of hygromas, 65 cases of tendinitis, 12 cases of sprains and 250 cases of arthritis. In all the cases, for the critiria cited above, he obtain as good or better results with aloe vera as with other allopathic pharmaceutical products.

Doctor Spiegle of Dallas, Texas used aloe vera in the treatment of hundreds of cases of bruises, scratches, dislocations, hematomes, tendinitis, hygromas, arthriti myositis and secondary infections. He judged his results as superior to those obtained using current allopathic medical treaments. In a mere 20 cases of of muscular spasms did he have results classified only as good!

The Florida surgeon, Dr. Pedro Villa, a specialist in athletic traumatisms, tested stablized aloe vera on 80 cases of severe sunburns, 50 cases of various contusions and cuts on rocks during swimming, 30 cases of hematomes due to falls, 20 cases of tendinitis, 20 cases of hygromas and 40 cases of myositis.

He was able to confirm excellent results in reduction of muscular and articular pain as well as in the healing of wounds and burns.

After all these reports made by doctors (there are hundreds of others), it is not surprising to learn that the use of aloe vera by athletic trainers and doctors has become common practice in the high level sports system in the United States and elsewhere.

But we must note that the acceptance of aloe by the leaders in sports was not immediate. There was a lot of resistence because the trainers and the doctors working with high level athletes are continually bombarded with offers of miracle products which are not always very effective.

To illustrate this problem let us cite the case of a

distributor of aloe products who vaunted his products to the trainer of a rugby team in southwestern France. Having heard the sales talk of the salesman, he said, "You claim that your aloe vera based product immediately relieves pain.

- Yes, thats what the manufacturer claims.
- Okay, we are going to see if its true!"

The trainer rolled up his sleeve showing him a bandage which he immediately took off. The elbow was blue and completely swollen. It was not a beautiful sight to see. The accident had occured a few days before. The trainer proposed that they start the test immediately.

The salesman placed his watch upon the table and not too sure of himself began to spread a cream of 70% stablized Aloe vera over the oedema. Noting his clumsiness, the trainer took the cream and began to apply it himself with a vigorous rub.

He was surprised to find that the pain had already diminished in spite of his rather vigorous massage. In less than three minutes he felt no more pain!

Rather surprised at this quasi instantaneous effect - he had been suffering for several days - the trainer asked his assistant to try it on one of his athletes who had just sprained his knee, before giving him a painkiller. Of course, the doctor was sceptical but accepted.

Fifteen minutes after the application of the aloe cream, the athlete had no more pain. Of course, the trainer was convinced and from then on he used the aloe products to treat his athletes.

Soon after, the trainer convinced others in the profession to adopt the aloe products as an effective first aid treatment.



The experience of a trainer

Larry Gardner, a very well known trainer of American football teams, including the "Dallas Cowboys" and "the Miami Dolphins", became the director of a readaptation unit at the "North Texas Sports Medical Center". He has been using the aloe based products for several years to treat the wounds of athletes. Let us cite his testimony:



"We use the aloe lotion to treat our patients having had knee operations. We also prescribe continuing the aloe cure once they have returned home. The aloe hydrates the skin and helps the healing. We also acompany the treatment with ultrasound in synergy with a massage with aloe cream. I do not claim that aloe is a panacea for all types of problems. However, it is one of the products, among others, which we use regularly to help our athletes to heal faster.

Larry Gardner and Frank Medina, two well known trainers, had compared results obtained using aloe vera gel with other currently used products. In treating 12 cases of tendinitis and 20 cases of muscular sprains with aloe, they obtained results equal to or superior to those with the other products. Frank Medina had used the products of stablized aloe vera (aloe activator) during a period of four years in treating thousands of different cases: burns on artificial grass, contusions, abrasions, sprains, tendinitis, and secondary infections. In almosr all the cases, he obtained very positive results.

To treat grass burns, he had obtained superior results in

both the prevention and the healing of blisters, thanks to the anti-inflammaory and antiseptic action of aloe. In the treatment of tendinitis, sprains and secondary infections, he had results as good as with other current products.

With the increased use of artificial grass, the frequency of skin burns and infections has increased markedly. In order to prevent staphylococcus infections, the treatment must be rapid and the burns vary in size from 2 to 15 centimeters. Before his use of aloe vera cream, he found that it took two to four weeks to arrive at a complete cure. With the aloe cream it took only a week!

A biogenic stimulator

The Soviet trainer, Gregory Grigoranko, was an early aloe user. He gave his sportsmen the biogenic stimulators of Filatov which were made with aloe arborescens. He affirmed the following: "Aloe in the form of an injectable biostimulator gives fantastic and rapid results in the treatment of muscular sprains, contusions of muscles and tendons. This product is also active in the treatment of burns and various infections due to ingrown nails or by mycosis."

"I use the pure aloe gel in both hot and cold baths. I apply it immediately to sprains and contusions and have found that the aloe gel rapidly lowers the pain and swelling. The fresh gel from an aloe leaf if kept in a refigerator conserves its active ingredients for ten days. It continues to serve as an ultra penetrating substance which carries the active aloe substances to the affected region."

Disagreeable odors

All very active people, notably sportsmen and their trainers, know the smell and odors so prevelent in the gymnasiums and on the bodies of athletes after their strenuous activity.

Some use aloe vera as a natural and effective deodorant.

How to use aloe vera!

The first action to take when someone is wounded, is to first carefully clean and disenfect it, then to cover it with a gauze saturated with fresh or stablized aloe vera gel. Use the same procedure to treat a sprain. In both cases the pain is quickly eased. In the case of a fracture, of course it should first be reduced, then cover it with a layer of aloe vera gel. One must never induce aloe gel into a deep wound before it has been disenfected, thus avoiding an abcess.

In all cases, a cure with the juice of Aloe vera is one of the best tonics.

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HYGIENE AND COSMETICS



Today, the cosmetic* industry has become the second largest industry in the world, the first being the agricultural and food industry. They manufacture and sell a considerable number of divers products: lotions and creams of all kinds, shampoos and hair lotions, colorings, tooth pasts, deodorants, soaps, shaving cream, sprays, bath salts, powders, lipstick, beauty masks, etc., etc.

Within several decades, aloe, which was already well known for its medicinal properties, has become a reference plant in the cosmetic domain. Rich in vitamins and minerals, aloe vera is known as an astringent, humidifier, penetrant, skin softener, gums out wrinkles and acts against skin problems. It protects the skin from the polluted city air and sun burns. Its proteolytic enzymes aid in the elimination of dead skin cells and in the cellular division which helps in the regeneration of the skin.

This immense sector of activity has become an eldorado for the international cosmetic companies. Of course, we find on this world market the best and the worst. In America it is commonly called: "The great American coverup", the great camouflage. Unfortunately, instead of correcting the problems these socalled miracle products merely cover up the hair and skin problems. Obviously, before exposing your body to one of these neutral or even negative treatments, it is always wise to be informed. Even aloe vera products are included in this great bluff! Not all the products offered which contain aloe are quality products. Thus, before starting a treatment recall that the beauty and health of your skin and hair will not be

regenerated overnight by a socalled miracle product. What they need is long term treatment using quality products and proven methods.

Always use the products manufactured according to the rigorous pharmaceutical standards. These are much stricter than for cosmetic products. Here are some of the standard uses for a high quality aloe product:

Mouth care

The intrinsic properties of aloe make it ideal for care of the mouth. The daily use of aloe as a mouthwash and an alternate use of an aloe based toothpaste with a flourine one is ideal to protect the teeth against caries and tartar.

Care of the scalp and capillairies

Dry seborrhea, eczema, psoriasis and alopecia* are the most common patholgies affecting the scalp and the hair. Aloe is an excellent ally in the treatment of these ailments. Used together with jojoba, it is very effective against these four problems.

When massaging the hair, the astringent action of aloe not only closes the wide open pores but it also fortifies the scalp by penetrating into the skin to act on the roots of the hair.

Shampooing with an aloe based shampoo is recommended as a revitaliser of lustreless and dry hair. Accompanying the aloe hair care with a cure of aloe juice. is highly recommended.

Skin care

By aiding the hydration of the skin and the renewing of skin cells, aloe renders the skin soft and smooth, it attenuates the aging spots and cares for hands which have been agressed by exposure to detergents and oils. More than just a veritable benediction for the skin, aloe also acts effectively against disagreeable transpiration odors.





Aloe mitraeformis

DOMESTIC RECIPES

Skin ailments, eczema, mycosis

Apply an aloe vera based cream several times per day on the affected skin area.

Blisters

Prevention: apply an aloe cream or the pure gel to the tender skin.

Open blisters: Be sure to clean and desinfect the blister before applying the aloe vera gel. Let it open for a few minutes before covering with a gauze.

Closed blisters: Puncture the blister with a needle (disenfected over a flame or in alcohol), apply aloe and cover it with a gauze.

Anguish, nervous tension, stress

The fresh pulp of aloe or a correctly stablized aloe vera gel is an excellent health drink and represents a perfect food compliment for those who are either anguished, nervous or stressed. Drinking a small glass of pure aloe vera juice, or mixed with honey or a fruit juice, brings one calm and the energy to face the trials and tribulations of our hectic modernlife.

Cuts, wounds, burns, scratches

Wash the wound with soap and water, then bath and cover with the aloe vera gel. Then leave it exposed several minutes before covering it with a gauze.

Sprains, lumbago, dislocations, tendinitis

First place an ice pack made of frozen aloe pulp, then treat the swollen part with aloe gel. A method used by many sportsmen consists in freezing some aloe pulp in a paper cup and then rubbing slowly the injured part with it as it slowly melts.

Chapped hands

R ub delicately the chapped part with aloe cream three times per day.

Obesity, bulimia, anoraxia

A prolonged cure consisting of drinking aloe vera juice (three times per day before each meal) will regularize the intestinal transit and the digestive function. Many testimonials by obese and bulimic persons have confirmed the efficacity of this cure in losing weight. The aloe acts as a natural hunger stopper. Even anorexia has been stopped by an aloe cure without really know why.

Parasites, lice

Aselgian reader of our book informed us of the unbelievable success he had in eliminating lice in a class where all the children were infected. For, when all the traditional methods had failed, since they were either too soft or too agressive, using aloe vera repeatedly during three days succeded without provoking secondary effects. The best results are obtained by allowing the aloe to do its job for about an hour then using a fine comb: the lice stick to the aloe pulp and the comb.

Dandruff and falling hair

Massaging the scalp regularly with aloe pulp and using an aloe shampoo and an aloe based after-shampoo works wonders. Mixing fresh aloe pulp with sweet white wine and massaging the hair with the mixture before going to bed is also a method offering good results.

Care of the mouth

To treat bleeding gums or mucus massage them gently with a soft brush impregnated with aloe gel toothpaste or with aloe gel and honey.

Care of the eyes

T or relieve tired or painful eyes there is nothing better than an eye lotion of aloe. American doctors claim that aloe vera activator relieves conjunctivitis and slows down the development of cataract but advise that eye problems should be followed by a doctor!



VETERINARY MEDICINE



Doctor Richard Holland, a member of the University of Minnesota veterinary faculty, affirms: "Aloe vera constitutes one of the treatments with the most universal properties that I have ever known."

Today, because of the rapid degradation of the environment many breeders have begun to give up intensive battery raising, which is very polluting and requires medical treatments and are returning to the traditional less polluting methods. Ecobiological raising prefers quality to productivity. The conversion is not easy, but the results are there.

Today, in the USA, Canada and Europe farmers are experimenting with biological raising techniques by using aloe vera in the combat against certain diseases. Some of the results have been surprising and have often been better than expected.

(Read: Aloe, hygiene and health of animals, same author).

The use of aloe in the treatment of animal diseases has been known since antiquity. In the 17th century, the use of aloe in treating horses was widespread under the name of horse aloe. Manufactured by the English on the island of Jamaica, it was exported around the world. Its bactericidal action became evident after 1940, after convincing tests in treating animals.

Moreover the non toxic nature was also proven. All the serious veterinarian studies show that the treatments based

on aloe, often accused by official medicine as merely a simple psychosomatic effect, is due to its remarkable curative virtues and not to a simple placebo effect.

The numerous successes in veterinary medicine clearly refute the arguments against aloe vera often proclaimed by those who are poorly informed. Above all it is clear that an animal does not know the placebo effect, for it is a comportment specific to man.

Researchers have long ago noted that numerous remedies which work well on man are also true for animals, and vice versa. In the treatment of animals aloe has the same curative virtues as on man. It is bactericidal, virulicidal, fungicidal and anti-inflammatory. It has a remarkable power of penetrating and nourishing the skin. Thanks to the enzymzes and the amino-acids it contains, it acts effectively in the regeneration of the affected tissues.

The utilization of stablized aloe vera by American veterinarians has become common practice since 1970.

We cite below several typical successful examples noted by Doctor Richard Holland, a fervant adept of aloe vera, in his book *Creatures in our care*, written in collaboration with Bill Coats.

"In 1975, doctor Robert Northway of Van Nuys, California published a report on the treatment with stablized aloe vera of 42 dogs, 25 cats and 4 horses, for such ailments as: ringworm, otitis, atopia* and various fungus infections. In 67 cases of the 71 treated, he had results as good or superior to those with classical treatments. He also had excellent results in treating race horses for problems such as tendinitis and articular inflammations."

Mr. and Mme. R.M. of Dallas, Texas had a special case with their horse. The horse had an inflammed knee which they had treated for several days without success using conventional remedies.