

COCAINE IN SOUTH AMERICA SOLD LIKE CHEWING GUM

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Drug plants and narcotics are usually associated with the Orient, yet a large part of the people living in the Andes of Ecuador, Peru, Bolivia and near-by countries of South America use cocaine daily. The cocaine plant is one of the New World cultivated plants which were studied by the Museum's Desloge 1948 Peruvian Botanical Expedition.

Most species of the genus *Erythroxylon* are natives of South America, while a few others grow in Africa and southeastern Asia. However the drug is obtained from the Peruvian and Bolivian species, *Erythroxylon coca*, cultivated for this purpose. Like rubber, tapioca and cashews, cocaine is now grown in the East Indies from New World seed. By careful handling and by selection of high drug-yielding varieties, the amount of cocaine alkaloids in the leaves of the East Indian plants has been increased so that they now yield nearly twice as much as leaves taken from average plants in South America. This case is similar to the history of rubber in the Orient. Improvements in culture methods and plant-breeding in rubber made in the Far East now yield larger quantities of more uniform and cheaper rubber than the methods in use in the New World.

PROCESSED LIKE TEA

The cocaine plant is cultivated and harvested much like tea. Nursery-grown seedlings are transplanted to terraces on the moist slopes of semi-tropical valleys. The leaves are picked when they are fully grown. Unlike tea, the terminal clusters of leaves and the very young ones are not taken. After picking, the leaves are spread out to dry in the sun and are turned every hour. In parts of the Andes, a barefooted worker stamps on the leaves when they are fresh. This flattens the leaves and bruises them slightly so that they dry quickly. During the rainy season the leaves are dried in special sheds on bamboo racks below which a low fire is kept burning. When the leaves are completely dry they are tightly packed in homemade sacks or pressed into small bales.

Most of the cocaine leaves produced in South America are used locally. A large part of any marketplace is occupied by vendors of the leaves. So general is the use of the leaves that many big farms pay a large part of wages with such leaves. The leaf-chewing habit is spreading in South America. During the recent Chaco War between Bolivia and Paraguay, leaves were distributed to the Bolivian soldiers and now the Indians of the Chaco have learned the habit. Improved transportation, by trains and trucks, has allowed many workers to

learn about the use of the leaves and made it easier to secure them. On the other hand, an increasing number of natives abandon the habit after they are educated or after they work awhile in the larger towns. Increased labor costs and the spread of plant diseases in the cocaine plantations have raised the cost of the leaves. The increased cost often discourages the habit. But since chewing the leaves deadens the pangs of hunger, workers buy less food and become weak and susceptible to disease.

'MAGICAL USES'

Most of the leaves grown in the New World are chewed. Only a limited amount is devoted to extraction of cocaine used in medicine, especially as a local anesthetic.



SOCIAL COMMENTARY

As shown in this picture, cocaine leaves are sold openly like any other commodity in all the Andean market places. This scene is in Cochabamba, Bolivia. Also sold are pellets of lime or ash to chew with the leaves—the alkaline helps to release the drug.

Some leaves are used in making tea and in the preparation of soft drinks. An interesting use of the leaves in the area visited by the Desloge Peruvian Botanical Expedition is in divining the location of lost or stolen property. A medicine man casts the leaves onto a smooth piece of ground or on flat stones and then tells, from the pattern in which the leaves fall, where the property can be found. The medicine man is usually paid in leaves.

To chew the leaves several are placed in the mouth and a small piece of lime or ashes mixed with clay is added. The leaves are moved slightly with the tongue and teeth but usually are kept as a quid between the teeth and the cheek. The

SUMMER MOVIE PROGRAMS FOR CHILDREN

Two more of the Raymond Foundation's free summer programs of motion pictures for children remain to be given on the first two Thursday mornings of August.

The entertainments will be given in the James Simpson Theatre of the Museum at 10:30 A.M. Children are invited to come alone, accompanied by parents or other adults, or in groups from clubs and various centers. Admission is free. Following are the dates and titles of the films:

August 5—THUNDERING WATERS

Niagara Falls.

Also a cartoon.

August 12—SIMBA

African pictures taken by the Martin Johnsons.

Story told by Harriet Smith.

lime and ashes are alkaline and help to release the drug. Using an alkali in this fashion is a very old trick, for it was practiced in South America long before Columbus arrived. We know this because in prehistoric burials of coastal Peru we often find small gourds with ashes or lime associated with the bags which contain the cocaine leaves. In northern Peru some of the pottery figures of men are shown wearing these bags or taking cocaine leaves.

The use of an alkali with a drug plant is not restricted to South America. Betel nut chewers of the Orient usually chew lime with their nuts. When the Spaniards conquered Mexico, the Indians chewed tobacco mixed with lime to keep them from feeling hunger and thirst on long journeys. And in northern South America and the West Indies, ground seeds of a mimosa-like tree, *Piptadenia peregrina*, are mixed with ashes and snuffed.

FORBIDDEN TO WOMEN

The use of cocaine leaves is a male prerogative. While the common Indian of the Andean highlands is rarely without a quid, the women rarely ever enjoy the pain- and fatigue-dulling solace of the leaves. "For men only" was a common rule for drug plants in many regions.

The black drink or cassine tea of our southeastern United States Indians which is shown in Case 54 of Hall 25 could not be imbibed in some tribes if a woman even saw the pot in which it was prepared. In the jungles of the upper Amazon, women were put to death if they saw the ceremonies surrounding the drinking of a solution of caapi, the narcotic containing *Banisteria Caapi*. And even among our own people in the United States, one realizes upon reflection, only certain forms of nicotine can be enjoyed by women, for social custom limits the use of pipes and cigars to men only.



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