

Papua: Betel.

Chinnery.

**Piper Methysticum in Betel-Chewing.** By E. W. Pearson Chinnery.

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In the Mambare and Kussasi divisions of Papua three important substances are used in betel-chewing—*dag* or *cha* (the betel-nut), *oag* (lime), and *pingi* (*Piper methysticum*). *Dag* or *cha* is the nut of a species of areca palm, which is extensively cultivated by the Binandere-speaking tribes of the coast and the lowlands of the interior. It is similar to the cultivated *bates* (pidgin Motuan) of other coastal regions. *Oag* is obtained by burning river shells in kilns. A layer of shells is placed between each layer of midribs of the nipa palm, and the kiln is lighted from the top; it burns downwards and deposits the burnt shells in a heap among the ashes, from which they are afterwards separated and reduced to powder by pounding. So far as I can remember, one of the betel peppers is a cultivated creeping plant, which clings to trees in the gardens and villages. The late Rev. Copland King, in his MS. dictionary and grammar of the Binandere language, identified *pingi* as *Piper methysticum*. Sir William McGregor in *Annual Report*,



BINANDERE NATIVES REDUCING THE BURNT SHELLS TO POWDER-LIKE FOR BETEL-NUT CHEWING.

British New Guinea, 1896-97, p. 31, referred to the occurrence of *Piper methysticum* in gardens on the Girā River, Mambare division.

The leaf, fruit, part of the stem bark, and root of plants known as *pingi* are chewed by the local natives with betel-nut and lime. I have repeatedly noticed the effect of this mixture on both men and women. The eyes assume a dull, vacant stare, and the person indulging soon becomes temporarily stupefied and incapable of intelligent effort, a condition known in the language of the Motuans as *baui-baui* (a word which is also used to describe drunkenness or foolishness). The mixture dribbles from the lips, or is sprayed by the mouth over the floor or walls of the house, and often the chewer rolls it into the form of a ball with his tongue, and not infrequently takes it into his hand and puts it back again with evident relish. The whole attitude is one of dreamy ecstasy. I once tasted *pingi* and found its flavour bitter and hot; it stimulated the salivary glands for some time afterwards, and left a swollen, numbed feeling in the tongue and mouth.

Betel-chewing occupies a place of great importance in the ceremonial life of the Binandere. The man who has been decorated for homicide, and has attained the state known as *hortops*, is permitted to ornament his lime gourd with beeswax and red-seeds, and rattle his lime stick against the opening of the gourd when withdrawing it from the lime. Temporary abstinence from betel-chewing is a form of self-denial which people are at times obliged to practise. An instance of this is seen in songs of instruction during the ceremonies following burial, when widows fulfilling the obligations of mourning are forbidden, among other tabus, to eat the betel mixture or even desire it. The phrases of the betel-chewing tabu are—

*Dang ta ge ge Lorie!*

Betel-nut of speak not widow.

*Pingi ta ge ge Lorie!*

Betel-pepper of speak not widow.

Another instance of the ceremonial importance of betel-nut (in this case the wild variety) was observed by me on Mount Chapman. There I was informed that tribes usually at war with one another congregate peacefully during initiation ceremonies. The symbol of this temporary truce is a piece of broken betel-nut (see the wild variety of *areca*), which is distributed among those gathered together by the givers of the ceremony. The ceremony finished, all who have participated return to their districts and the truce ends. In this district I was informed that lime is procured from the many limestone caves which occur in the locality, and carried in leaves, gourds being absent.

The use of the *pingi* plant, as part of the mixture of betel-chewers, has an extremely wide distribution in Papua. On the watershed of the Kiko River, M. Staniforth Smith (*Annual Report, British New Guinea, 1911, p. 170*) found a *kava* plant, *Macropiper methysticum*, in a native garden, but saw no evidence of the manufacture of the beverage. Wilfred N. Beaver noted the occurrence of betel-chewing in the same region. Possibly here, too, it is part of the betel-mixture.

While conducting expeditions among the hostile people (*Kiko-Kairi*) of the lower bush region of the Kiko, I frequently had occasion to reprimand my police for chewing betel-nut with a plant which they had found in the native gardens



MAMBAKE BAY. BINANDERE NATIVES BURNING SHELLS IN A HOLE OF "NIPA" PALM TO MAKE LIME FOR BETEL-NUT CHEWING.

and villages in the vicinity. On one or two occasions these police, who represented the Gulf, Central, Eastern, North, and Western Division of Papua, managed to obtain such plant without my knowledge, and if it had not been for the marked effect it produced in them I should not have detected its presence. It appeared to be well known to all of them (excepting those from Mount Victoria (Siagi), who are not betel-chewers) and in the *lingua franca* of the police (pidgin Motuan) was known as *pau-pau*.

The leaf, fruit, and portions of the stem and root were found hidden in their swags, neatly coiled and tied together like a bolt of rope. This plant was known to the Binandere police as *piagi besimau* (excellent *piagi*).

At other times and in other places, I have heard the Binandere police describe a plant obtained as *piagi bei* (inferior *piagi*).

It would appear from the evidence collected by Dr. A. C. Haddon (MAN, 1916, 10) and my observations, that the use of *Piper methysticum* (if my authorities for the identification of the plant are reliable) is widely distributed throughout British New Guinea (Papua). Its preparation as a beverage (*gawada*) appears to be confined to districts in the Western Division, where betel-nut chewing is not a practice; but in many districts, where betel-nut occupies a prominent place in ceremonial life, it is one of the chief constituents of the betel-chewing mixture.

Here I must remark that among the police whom I have had occasion to reprimand for indulging in betel-nut, combined with the plant known to the Binandere as *piagi*, were natives from the Fly River district in which the beverage (*gawada*) is drunk.

It is the object of this short paper to point out a connection between the use of *Piper methysticum* and betel-chewing in British New Guinea. It

seems probable that the betel pepper, known to the betel-chewers as *piagi* (Binandere) and *pau-pau* (pidgin Motuan) is *Piper methysticum*, or varieties thereof. Such plants, as well as varieties of the areca palm, grow wild in the forests, and on occasions when the cultivated nuts and plants cannot be procured, the chewers frequently partake of the wild varieties. But not without a contemptuous protest in "pidgin Motuan," such as follows:—

*Hari ika kuniu-iania besimo kani-ia.*

Now we people-of-the-bush resemble perform.

*Uda-buata, nfu-pau-pau dila-ora.*

Bush betel-nut, bush pepper, not nice.

The betel-chewer, when starting on a journey, invariably carries in his netted bag a supply of betel-nuts and a gourd filled with lime, but he does not appear to stock himself with pepper in the same careful way. His appearance in the village he is visiting is a signal for someone to dash away to the outskirts and reappear in a few moments with a coil or stalks of the pepper plant. He accepts this as a matter of course, and frequently gives betel-nuts in return; others gather around, and in a few moments all of them are chewing and talking with evident enjoyment.

In some of the mountain districts visited by me, betel-chewing is not known. Chief among these are the Biagi districts of Mount Victoria. But the influence has spread far inland in other parts, though in the mountainous regions the betel-nut palm is seldom cultivated, and the habit is not so much in favour as it is on the coast. Evidence of this is shown by the white teeth of the inhabitants, and the frequent absence of lime guards in mountain districts.

It would appear that betel-chewing is a relatively late influence. Kava (*gawa*) drinking has been prohibited by the Government, and betel-chewing is gradually extending among the tribes in the Fly River districts which formerly drank *gawa*; but whether or not the presence of *Piper methasticum* in other localities than the west suggests that at one time there was a wider distribution of *gawa* drinking, which has been superseded by betel-chewing, must be left for further investigation. Further evidence is also required to show whether the constituents of the betel pepper, leaf, fruit, stem, and root, belong to one plant or a variety of plants, and, if the latter, which is *Piper methasticum*.

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### Mexico: Archaeology.

Maudslay.

**A Note on the Teocalli of Huixtlopochtli and Tlaloc.** By A. P. **16**  
*Maudslay.*

At the time of the meeting of the Congress of Americanists in London I published a note on the Position and Extent of the Great Temple Enclosure of Tenochtitlan (Mexico), and the Position and Orientation of the Teocalli of Huixtlopochtli. I have lately received a letter from Don Manuel Gamio, the head of the Department of Anthropology in Mexico, who has been in charge of certain excavations in the city, from which the following is an extract:—

"There is no doubt whatever that the temples and shrines were those of Huixtlopochtli and Tlaloc, for, in addition to the theoretical proofs which you advanced in respect to the orientation of the temple in your treatise published in 1912, I have met with a part of the three first storeys of the pyramid and part of the stairway, one of the serpents' heads which terminated the said stairway, the pavement of slabs of polished stone, as well as the (fallen) parapet of the temple of Tlaloc in the shape of pointed shells, and the stone skulls which were inlaid on the Temple of Huixtlopochtli, etc.

"It has given me great satisfaction to have had the honour to prove that your interesting investigation was exact, as the discoveries which have been made afford proof."

I may add that the site of the Teocalli is now entirely covered by modern streets and houses.

ALFRED P. MAUDSLAY.

### Europe, Western: Religion.

Peake.

**Horned Deities.** By Harold Peake.

In his article, "A New Find in Palaeolithic Cave Art" (MAN, XXI, 108), Mr. Miles Burkitt refers to the old Gallic god, Cernunnos, though without arguing that there is necessarily a connection between this deity and the Sorcerer depicted in the cave of Trois-Frères; it may, therefore, not be out of place to examine more fully what is known about this Gallic deity.

In his Hibbert Lectures on Celtic Heathendom (pp. 77-89), the late Sir John Rhys dealt at considerable length with the deity he termed the Celtic Dis. He