NOTES ON THE SMOKING-PIPES OF NORTH QUEENSLAND AND THE NORTHERN TERRITORY OF AUSTRALIA.\textsuperscript{1} By Donald F. Thomson, D.Sc. Illustrated.

Smoking-pipes are in use among all the tribes of Cape York Peninsula, as well as throughout Arnhem Land on the opposite shores of the Gulf of Carpentaria. There is evidence for the belief that the use of tobacco has been known in North-Eastern Australia for a considerable time; nevertheless there is nothing to suggest that any attempt to grow tobacco was ever made by any of these people, although it was grown by their neighbours in Torres Straits. But it is of interest

\textsuperscript{1} The facts presented in this paper were obtained on expeditions to Cape York Peninsula, financed by the University of Melbourne, and in Arnhem Land, during 1935–37 under commission by the Commonwealth Government.
Fig. 1. MAN OF THE WANGURI CLAN, ARNHEM BAY, ARNHEM LAND, SMOKING THE 'CRAB-TOOTH PIPE'

MADE FROM THE CLAW OF THE LARGE EDIBLE CRAB, _NEPTUNUS PELAGICUS_, THIS PIPE IS IN COMMON USE ON THE COAST, AND IS KNOWN AS NYUKA LIRRA 'CRAB-TOOTH'.
to note that, in at least one tribe of Cape York Peninsula, the natives claim to have used, as a substitute for tobacco, the leaves of a plant which is known to possess certain medicinal properties.

Not only is tobacco smoking a habit firmly established among all these people, but it may also play a very important part on social and ceremonial occasions. In an earlier communication entitled The Ceremonial Presentation of Fire in North Queensland2 reference was made to the fact that the ceremonial presentation of fire to visitors about to be admitted to a camp, concluded with the passing of a smoking-pipe to them, although I was at that time under the impression that the smoking-pipe had been introduced much more recently than subsequent experience has indicated. During recent field work in the Northern Territory, the ritual aspect of tobacco smoking was noted when the passing of a smoking-pipe became a ceremonial act, establishing and affirming a bond of solidarity. This tends to be specially emphasized in Arnhem Land, where frequently tobacco pipes may bear painted, incised, or carved totemic designs which are sacred, so that in consequence the pipe may be smoked only by fully-initiated members of the totemic group which claims the totem. Although tobacco was never grown by the natives of Cape York Peninsula there is no reason to suppose that it has not been known in this region for a very long time. The material culture, social organization and ceremonial life in this area bears the strongest evidence of a dominant Papuan influence coming through Torres Straits, and there is no reason to suppose that the tobacco pipe, which has since been so widely adopted, was not included in this culture complex. In addition there is abundant evidence of an intermittent intercourse, accompanied by trade, between people from Torres Straits and natives of certain parts of Cape York Peninsula. The Koko Ya’o people of Lloyd Bay, which is the greatest stronghold on the Peninsula of hero cults of Papuan type,3 stated that the people from Torres Straits came frequently in big canoes to Mitirindji (Quoin Island) off the mouth of the Pascoe River, to obtain supplies of stone for their axes, and it is probable that tobacco was one of the important articles of exchange brought down during these voyages.

It is well known that tobacco is not the only narcotic used by these people, for the natives of North and Central Queensland, although they never made use of the so-called ‘Native Tobacco’ (Nicotiana suaveolens) that grows abundantly in Australia, have actually long been accustomed to collecting and preparing the leaves of another plant (Duboisia Hopwoodi) of the same natural order, Solanaceae, and even to transmitting supplies of this plant over long distances. An excellent and detailed account of the preparation and use of pituri, with a reference to the economic undercurrent that accompanied it, is given by W. E. Roth.4

There is every reason to believe that the use of this powerful stimulant was indigenous to Australia, so that the introduction of tobacco at a later stage, found, in this area at least, a people already prepared for its adoption, since pituri was evidently a habit-forming drug. Pituri was, however, after special preparation, generally chewed, although Maiden and Roth5 both state that it was sometimes used for smoking; this, however, must be a recent innovation, after the introduction of tobacco and apparently only in times of shortage of the latter. Under these circumstances it might have been expected that the introduction among the aborigines, long accustomed to the use of a narcotic of a somewhat similar type, which they employed for chewing, would tend to follow the pre-existing pattern of the material long in use. It may therefore be of interest to record the fact that in several years in the field in North Queensland and the Northern Territory I have never seen any aborigine chew tobacco. Moreover, after long contact with seafaring men and with drovers and cattlemen in the more settled areas, the example can scarcely have been lacking. But, as has been stated above, the reverse process has taken place and they have learned, on occasion, to adapt the pituri to the smoking-pipe since its introduction.

The craving for tobacco is a very strong force among the natives throughout North-Eastern Australia, and its introduction by white men

2 Thomson, Donald F., MAN, 1932, 198.
3 Thomson, Donald F. The Hero Cult Initiation and Totemism on Cape York (J.R.A.I., lxiii, 1933); see also Haddon, A. C. Reports of the Cambridge Anthrop. Expedition, Torres Straits, Vol. I, 1935, pages 266–273, for discussion of these cults.
4 Roth, W. E. Bulletins of North Queensland Ethnography, No. 3, 1901, sect. 28.
5 Maiden, J. H. The Useful Native Plants of Australia, 1889, pp. 168–172; Roth, W. E., i.e.
in the less settled areas where the natives have remained longest in possession of their own culture, has had a very disruptive influence. Under the 'drive' for tobacco the natives will undertake long journeys and endure unbelievable hardships, to obtain a few ounces of trade tobacco. It is probable also that their method of smoking, and the special type of pipe in use in North Queensland both serve to enhance the drug-effect, and induce a craving even stronger than that among more advanced people. A native will sell anything he possesses for a small quantity of tobacco, a fact which has been an active factor in the breaking down of tribal life. The natives of the Lower Archer and Holroyd Rivers on the shores of the Gulf of Carpentaria were for many years in the habit of making journeys inland to the overland telegraph line for tobacco, and to obtain even small quantities they will remain for weeks or months on the edge of a settlement.

By the Ompela and the Koko Ya'o and allied tribes that form the group known as the Kawadji of Eastern Cape York Peninsula, tobacco is called *keni*, properly the name applied to *Derris trifoliata* var. *macrocarpa*, the 'Dynamite Plant', which forms one of the most important of their fish poisons. *Keni* is also extended to cover any medicine or medicinal product. A second word, *operri*, is used in the tabu-language which is strongly developed among these people, and which is employed in addressing or in speaking 'one side' in the presence of relatives of certain orders. There is in the Ompela and Koko Ya'o languages no separate verb for 'smoke'; a man says 'ngaiyunganibataga?'. 'What shall I bite (smoke) ?'

The word, *keni*, or *mai ken*, is again used by the Wik Monkan tribe of the Lower Archer River district on the Gulf of Carpentaria, as well as by the neighbouring peoples, but here it is not associated with the fish poison, *Derris*, as it is on the Eastern seaboard of the Peninsula. The Wik Monkan claim to have used as a substitute for tobacco in times of shortage, the leaves of a shrub, *Grewia polygama*, which they call *yukk ponk mintjak*. It does not appear to have any narcotic properties, but it is well known as a medicinal plant and I am indebted to Mr. C. T. White, Government Botanist of Queensland, who determined the specimens for me, for the following paragraph:

'Regarding *Grewia polygama*, the only knowledge I have about this plant is that it is very freely used in North Queensland as a remedy for diarrhoea and dysentery. The leaves are soaked in water overnight, or maybe hot water is poured over them and the liquid allowed to become cold. It forms a somewhat mucilaginous liquid and is said to be very efficacious. I understand that in some parts of the North it is quite an article of trade, not only in North Queensland but in the Northern Territory and right over to the North-West of Western Australia.'

The small drupe of *Grewia polygama*, which is rusty-brown when ripe, and possesses a very sweet taste, though containing a large seed, is eaten by the natives throughout North Australia. But in Arnhem Land as well as in Queensland I found no evidence of the use of the leaves as a substitute for tobacco except in the Archer River district.

I have to thank Sir Arthur Hill, Director of the Royal Botanical Gardens, Kew, for the following note, which is of interest as showing the use of the leaves of another member of the genus *Grewia* in association with tobacco:

'According to C. E. Parkinson (Forest Flora, *Andamans Is.*, 1923, p. 105), the Andamanese use the leaves of *G. microcos*, Linn, for cigar wrappers. It is interesting to learn, therefore, that the natives of Northern Australia formerly used the leaves of *G. polygama* as a substitute for tobacco. We have found no information as to its special properties.

'The drupes of several species of *Grewia*, especially in Eastern Asia, are edible, and are used in curries and chutneys. The roots and leaves of *G. paniculata*, Roeh. in Indo-China and Malaya are used medicinally.'

**CAPE YORK PENINSULA.**

Two main types of smoking pipe are in use on Cape York Peninsula, which show indisputable evidence of external origin. One of these is a Papuan type which has been adopted without any modification except in regard to the material with which it may sometimes be manufactured, and the other is a modification of this type which appears to have been developed on the Peninsula, and to be restricted to this region.

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The more important of these is the hollow wooden pipe made from a branch of a tree or from drift bamboo. These pipes are known to the Ompela and Kokoa Ya’o Tribes of Eastern Cape York Peninsula as marapi, the name applied also to the drift bamboo from which they are most frequently manufactured. This bamboo, which drifts from the east, from New Guinea or the East Indian Archipelago, is of large diameter, and is distinguished from the small local bamboo which is used commonly for the shafts of certain kinds of spears, and is called pokali.

On the East coast of Cape York Peninsula I found only one type of wooden or bamboo pipe, the marapi, of which a typical example is shown in fig. 5. This consists of a cylinder, generally of bamboo, from which the partitions at the nodes have been removed; it has one end open, the other sealed with hard beeswax, wakkanta. A small hole is bored laterally about two inches from the distal (closed) end. This is not in reality a smoking-pipe, but is employed on Eastern Cape York purely as a medium for passing smoke around, and is always used in conjunction with a wooden pipe (consisting of a more or less crude model of a European briar pipe, cut from a solid block of wood), or with a cigarette rolled in paper-bark (Melaleuca).

The “smoking” of a marapi is a very different matter from the smoking of a European pipe, and is essentially a social or communal under-

Since this was written, Dr. Haddon has informed me that morap is the name for bamboo and also for the bamboo pipe among the Western Islanders of Torres Straits; the Eastern Islanders call bamboo marep.
taking. The usual procedure is for a man to fill a pipe or to roll a cigarette, and to inhale deeply, then taking the marapi in his hand, he applies his mouth to the open end and expels the smoke into the hollow cylinder. Meanwhile one of those squatting nearest to him applies his mouth to the small hole near the distal end, and inhales the smoke, which he swallows, and finally exhales through his nostrils, fig. 2. The marapi is charged again, and passed around to the entire group sitting about, hands being placed over the holes to prevent escape of the smoke. In this way it circulates so that one pipe or one cigarette serves for all, and the marapi is employed as a medium for transmitting smoke. The whole process is carried out slowly, with great deliberation, as if to extract the maximum enjoyment from each potent draw, so that the whole thing has almost the appearance of a ritual act. There is, however, no doubt that this method of smoking, the practice of inhaling and swallowing deep draughts from the charged marapi, has a powerful narcotic effect, and this has been well described by MacGillivray as follows:—"On several occasions on Cape York I have seen a native so affected by a single inhalation, as to be rendered nearly senseless, with the perspiration bursting out at every pore, and require a draught of water to restore him; and although myself a smoker, yet on the only occasion when I tried this mode of using tobacco, the sensations of nausea and faintness were produced."

Women as well as men share in this communal smoking, although a woman would regard it as impolitic to accept in public a pipe from a total stranger. The social aspect of smoking was well indicated to me when an Ompela native who accompanied me on a journey to the Lower Edward River on the Gulf of Carpentaria—a region that was almost a foreign country to him—one day exclaimed to me in an outraged voice: 'this man asked me for tobacco; I look him along eye and say "you countryman belong me?"', i.e., 'This man (a stranger) actually asked me for tobacco; I looked at him and said: "are you a countryman—what bond is there between us?"' For a man to give a girl a present of tobacco is regarded as an advance, while if a girl asks a man for tobacco it is taken as an invitation.

The same type of pipe is also used throughout the greater part of Cape York Peninsula, across to the Gulf of Carpentaria. In this region, however, a second type is also in use. This consists of a cylinder of wood or bamboo as in the first, but it is much shorter, it has both ends sealed with beeswax, and a small, laterally-placed hole situated about two inches from either end.

Pipes of this type are much used by the Wik Monkan of the Lower Archer River district, where they are known as tork. They are manufactured either from drift bamboo tjak-tjal, or from hollow wood. The specimen figured (fig. 4) is made from Ironwood (Erythrophloeum Laboucherii). These pipes are always shorter than the type already described. The specimen shown in the figure is 292 mm. in length and has a diameter of 58 mm. Those made from bamboo consist generally of a single internode or segment, and there is little doubt that the wooden form is also modelled on this pattern. Drift bamboo is much valued, not only for these smoking pipes, but also for the manufacture of the tubular vessels used for the carriage of water. The pipes of the Wik Monkan and neighbouring tribes of the Gulf of Carpentaria were used in the same manner as those of the East Coast, but frequently the tobacco was rolled in a piece of Melaleuca bark, kitja, and inserted into the lateral hole on the pipe. In this way the stiff paper-bark formed a funnel exactly parallel with the slender tubular wooden funnels described and figured by Jukes.

The mouth is applied to the opening at the other end in the first type, or to the small lateral orifice in the other, and the cylinder charged with smoke. The smoker inhales two or three draughts, places his hand over the holes, and passes the tork on. Especially on the East Coast, and in the more settled regions of the Peninsula, the pipe now in common use is merely a wooden imitation of the European briar-pipe more or less crudely fashioned from a solid block of wood, bored with a red hot wire. This is known in the Ompela, Kandju and neighbouring tribes as paipo, an obvious corruption of the English 'pipe.' Among the sand-beach men of the East coast, the

\* MacGillivray, J., _Narrative of the Voyage of H.M.S. Rattlesnake_, (1852), I, p. 126.
FIG. 6.—SERIES OF SMOKING PIPES FROM EASTERN ARNHEM LAND, illustrating typical examples, with variations in form, in technique of manufacture, and in ornamentation. All are generically *pamutuka*, pipes, but they are sometimes called *lungin*, the name of the wood from which typically pipes of this type are manufactured.

1.—Typical smoking pipe of North-eastern Arnhem Land, distal end plugged with 'tea tree' bark, tapered mouthpiece, *ta-poi*, and bowl, *mangotji*, 'eye': made from tinplate: no ornamentation: Burara Tribe, Cape Stewart: L. 250 mm.

2.—Model or toy smoking pipe, *pamutuka wakkalpoi*, 'pipe play-for': a child's plaything. Kumait clan, Cape Arnhem district: L. 142 mm.

3.—Smoking pipe, of same type as 1, showing ornamentation of non-sacred type in the form of annular rings arranged in four series: Arrawiya clan. Trial Bay, Gulf of Carpentaria: L. 560 mm.

4.—Smoking pipe, made by splitting wood longitudinally to facilitate the hollowing of the centre, the two halves joined and secured by lashings, ties, and seams, which are sealed with beeswax: bowl made from tin obtained from a match-box: Blue Mud Bay, Gulf of Carpentaria: L. 330 mm.

5.—Smoking pipe of the same type, showing tapering of the wooden cylinder towards the mouthpiece, and beginning of the ornamentation which becomes very elaborate in later specimens. The bowl of scrap tin, packed with 'tea-tree' bark, which is also used in each case to plug the distal end: L. 362 mm.

6.—Smoking pipe showing the elaborately carved and incised ornamentation that is frequently seen in this area. It represents the diamond-shaped pattern associated with the *birkurda* ('sugar-bag' bee) totem of Daigur'gur, *barpuro*, and signifies that the pipe is dedicated to this totem, and that it may not be smoked by any but initiated members of the group. These patterns are employed as a deliberate device to restrict the sharing of tobacco. Sacred designs (*mintji*) of this type are always concealed by a wrapping of *Melaleuca* bark, or by binding with calico or other material, which in itself generally denotes that a pipe is tabu (*duyu*): Glyde River district, Central Arnhem Land: L. 600 mm.

7.—Smoking pipe of fine craftsmanship, recently dedicated to a totem and newly painted with the sacred *rarrk* (*mintji*, design). The design represents the cloud pattern (*tarrupong*) of Mildjingi clan of the Glyde River as it appears on the *butulo* (bottle) *ranga*. It is of interest to note that the pipe had formerly belonged to a man of the opposite (Dua) moiety, and had then been dedicated to a totem (*kula*, human excrement) of that moiety. The design was always masked, when the pipe was in use, with a sheathing of bark (see fig. 8) or a covering of calico wound about the cylinder: L. 440 mm.

8.—A smoking pipe of type similar to those shown in figs. 1–7, enclosed in a sheathing of paper bark (*barrukalla*) and bound with *Pandanus*, to stop leaks. A similar device is used to cover from profane eyes the sacred patterns of the type shown in figs. 6 and 7: L. 400 mm.
marapi is often used, and where tobacco is still relatively difficult to obtain, the European type of pipe is used in conjunction with the bamboo.

The chief interest of the general adoption of this type of pipe lies in the fact that it provides one of the very few examples that I encountered in a period of three years that I spent with these people, in which an element of white man's material culture has been adopted and closely imitated. There are innumerable examples of borrowing but in most instances a material has been adapted and modified sufficiently to fit into the pre-existent pattern. This is well exemplified in the use of iron spear barbs, iron adzes, and iron harpoons, in which the new material has generally merely replaced the old—wood, bone or shell—and has been secured by exactly the same technique as was applied to the material used formerly.

**ARNHEM LAND**

As in North Queensland, smoking-pipes are also in general use throughout Arnhem Land. Here, however, though there are numerous forms of smoking-pipe, many of which are very distinctive and ingenious, they fall into two separate groups, the first consisting of all the hollow wooden pipes, which show indisputable evidence of external origin, and which undoubtedly came from Indonesia and not from Papua, and a second group containing all the other types, most of which appear to have evolved in this area.

The generic name for all and every pipe is pamutuka, but the cylindrical wooden pipes fig. 6 (1–9) are known specifically as lungin, properly the name of the wood from which, typically, these pipes are manufactured. Although these lungin resemble superficially the hollow wooden pipes of Cape York Peninsula, they are in reality very different, for they are essentially used as smoking-pipes and not merely as reservoirs for passing on smoke from one man to another. While the pipes of Cape York Peninsula are unmistakably of Papuan type and origin, the wooden pipes of Arnhem Land are equally definitely of Indonesian origin and were probably introduced into Arnhem Land, with tobacco, by the early Macassar voyagers, or their predecessors.

The wooden smoking-pipes of Arnhem Land of the type known as lungin, of which a representative series is shown in fig. 6 (1–9), normally range from about eight inches in length to about three feet, or a little more. They are more or less straight in the ordinary specimens, but in specially fine examples they tend to be tapered towards the proximal end, and to have a well-defined mouthpiece (ta-poi, lit. ‘mouth for’). The proximal end is always open, and, as in the Queensland specimens, the distal end is closed, in this case with a plug of tea tree bark, sometimes with the addition of kallanyin the black wax of the native ‘sugar-bag’ bee. A small hole is made laterally an inch or two from the distal end, and into this is inserted a short circular tube made from a piece of scrap tin or tin plate, and the joint rendered air-tight with paper-bark or calico. To-day the metal boxes in which wax matches are packed are much valued for this purpose, and the odds and ends of iron bands and hoops from drift-wood and boxes are eagerly sought after. Occasionally thimbles are used, the tops, however, being removed before they are fitted. The ‘bowl’ therefore is really a short tube with no bottom; it is called pai'tjipang, or more generally, mangotji, ‘eye.’

There is much variation in the skill and workmanship expended upon these lungin and they are valued accordingly. The simplest are very plain, unadorned, and purely utilitarian. Such objects are referred to more or less contemptuously as ‘wakkingnu,’ which really means ‘uncouth,’ ‘unrefined,’ in contrast with the finely-decorated specimens upon which much time and skill has been lavished.

Not a little ingenuity is often brought to bear upon the manufacture of these things, in the absence of suitable implements and tools. This is well illustrated in fig. 6 (4) in which the wood had been split longitudinally to enable the hollow lumen to be made, the two halves then joined together, lashed in four places, and sealed securely with beeswax. This is of interest and it may be noted that the same technique has also been employed by the Eskimo for the same purpose.

The technique shown in the specimen in fig. 6 (9) of young wood was hammered to free the cambium from the wood. The whole was then bound with bass-fibre and the central woody cylinder withdrawn: Tjamar‘ poingo, Elcho Island, Arnhem Land: L (bark tube only) 480 mm.

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9.—“Sterculia-bark pipe,” balk’balk kaba nga pamutuka. A pipe in process of manufacture from the outer bark of Sterculia quadrifida, an ingenious device for overcoming the difficulty of making the hollow lumen of a wooden pipe without tools. The section of a branch
FIG. 7. SMOKING-PIPES FROM NORTH EASTERN ARNHEM LAND: Nos. 1-4 smoking-pipes; No. 5 tobacco-holder.

1.—Calcareaous tube (laitjin) of *Teredo* used as smoking-pipe: Arnhem Bay district: L. 146 mm., D. 16 mm.
2.—Humerus of bird, probably *Kordorkor*. 'Native 'Companion' (*Megalornis rubicunda*) used as smoking-pipe: the medullary cavity is partly closed with a plug: L. 146 mm.
3.—'Crab-tooth,' *Nyuka tirra*: made from chela of an edible crab (*Neptunius pelagicus*, Linn): L. 83 mm.: see also Plate F.
4.—Marine mollusc shell, *waiaonga* (*Turritella terebra* Lamarck) used as smoking-pipe. Wanguri clan, Arnhem Bay: L. 120 mm.
5.—Tobacco-holder made from the humerus of a pelican (*P. conspicillatus*): the medullary cavity is closed at one end with 'tea-tree' bark and sealed with wax: L. 106 mm., D. 16 mm.

is even more ingenious, and effectively overcomes the difficulty of making a slender tube in the absence of any other tools than a quartzite spearhead, used as a knife, and a stone to serve as a pounder. A young branch of *Sterculia quadrifida* of suitable diameter, in which the sap was free, was stripped of its bark except for the length of the tube required. The bark was then hammered with a pounding stone to free the cambium from the wood. It was then carefully bound with bast fibre, allowed to harden and the central woody cylinder withdrawn, leaving a tube which would serve very well as a pipe.

Not infrequently the decoration on these pipes is not carried out until some time after the pipe is made, when it has been in use for some time. The simplest type, of which examples are seen in fig. 6 (3 and 5) are non-sacred, but it is the practice in Arnhem Land for a man to dedicate fine or valued objects of material culture to the totems of his clan, which does render them sacred, so that they are then said to be *yarkomirri* — 'with names.' Thenceforth they may be referred to by the totemic name. The conventionalized *mintji* or patterns which belong exclusively to the totem, and to the clan that claims it, may now be painted or incised upon the object. The practice is employed frequently with spears, but chiefly with the greatly valued iron-headed spears, *kaiyiit*, rarely with wooden spears; with canoes and canoe-paddles, but only with wooden dug-out canoes, *lippa'lipta*, and their paddles, and not with the indigenous bark-canoes or the paddles of thea'; and again with smoking-pipes of the type called *lungin*, i.e., with objects borrowed from the Macassar voyagers.

This is a matter of no small importance in the study of culture-contact in this region, for it
reveals the psychological attitude adopted by the natives of Arnhem Land towards the incoming culture, and the association of the adopted elements with prestige. It is suggested that with such an attitude towards the ‘invading’ or ‘borrowed’ elements a high degree of receptiveness towards the incoming culture exists, not only to objects of material culture, but also in social matters, and that the borrowed elements, whether material or social, acquire a prestige and a formal approval that finds expression in this ceremonial dedication to the sacred ranga, the centre of the sacred and ceremonial life of the group.

Following upon this dedication of the smoking-pipe, it becomes duyu, ‘tabu,’ and may not be smoked by any but men fully initiated to the totem in question;—that is, by men who have been, for the appropriate number of times, through the full series of ceremonies comprising the ngarra associated with this mardai’in, at which its ancestral history has been revealed and explained to them, and at the termination of which they have been painted with the mintji appropriate to this totem.

Sometimes these tabus may remain in force for the entire life of the pipe, but at others, after a certain interval, the tabu may be removed at a special ceremony, at the conclusion of which the pipe or other object is smeared all over with red ochre, miko, to mark the liberation from the tabu, and it is now ‘free.’ The pipe shown in fig. 6 (7) is of unusual interest, for it had been twice dedicated to totems in this way, and had even belonged at different stages, to totems of different moieties. When I first saw it, it was a pipe of Dua moiety, bearing the name of kulà ranga (human excrement totem), but subsequently it passed to a member of Mildjingi, a clan of Yiritja moiety. It was then named after ranga butulo (bottle) and bore mintji (called rarrk in the Mildjingi language) representing tarrupong (clouds) which is characteristic of this group and which is painted upon all its totems.

Once these designs have been made, whether by painting, as in the greater part of the pattern on the specimen in fig. 6 (7) or by carving or incision of the design, as in the ‘sugar bag’ pipe shown in fig. 6 (6) they must not be exposed to the eyes of the uninitiated, but are kept sheathed with a covering of paper-bark, as in fig. 6 (8) or bound with a strip of calico to cover the sacred mintji. This covering is retained, even when the pipe is actually in use. The effect of this use of sacred mintji is further to strengthen the bond that exists between all those who share in a social activity, and to raise the smoking of a totemic pipe almost to the level of a sacred rite. This reaches its extreme development when such a pipe is smoked actually within the warrau, literally the ‘shade,’ the shelter or house of boughs that forms the repository of the ranga during a ngarra ceremony. For, not only are all those present at such a time bound by the bond either of common possession of the totem, or of full initiation to it, but they are all under implicit agreement never to fight or to quarrel, but to preserve a state of domestic peace, during the progress of a totemic ceremony. It will be seen therefore, that the association of smoking in this area with social matters and with prestige, is a factor of some importance, and that there is a great deal of difference between the smoking of an ordinary wakkingnu (non-sacred or utilitarian) pipe and a pipe that is yarkomirri. It will be clear, of course, that no woman is ever at any time permitted to smoke such a pipe, although here, just as on Cape York Peninsula, the women normally share a pipe with the men on equal terms.

An interesting aspect of this question is the use to which it may be put with the deliberate object of restricting the use of tobacco, and there is no doubt that it is a ruse frequently employed as a means of hoarding or conserving tobacco without giving the legitimate ground for ill-feeling or the risk of openly incurring a charge of meanness that must otherwise result. The responsibility for failure to ‘share out’ becomes transferred to the group who may partake, and it is easier to accuse an individual than a group, bound together by a common bond of this sort.

In addition to the lungin, which, as has been stated, shows indisputable evidence of its Indonesian origin, a number of other pipes are also in more or less general use. None of these has a very long life; all are regarded rather as temporary or makeshift; they are never greatly valued, and in my experience never yarkomirri; they may be smoked by all, unless the tobacco itself is tabu.

A representative series of these pipes from Eastern Arnhem Land is figured in fig. 7. Of these by far the most common is a crab-tooth pipe, nyuka lirra pamutuka, fig. 7 (3), made from
the chelae of the large edible crab, *Neptuneus pelagicus*, Linn. These pipes were used in large numbers about Arnhem Bay, at Elcho Island, in the Crocodile Islands, and in the neighbourhood of Cape Stewart. The tip of the claw is broken off to form a tube and this end placed in the mouth (Plate F, fig. 1).

Smoking-pipes are also made from the bones of various birds, especially those of Native Companion, the Jabiru, and the Pelican. These bones are especially suitable for this purpose on account of their lightness in comparison with the bones of mammals, and of the large medullary cavity. The medullary cavity is partially blocked near the distal end, generally with a piece of wood, so that the effect is to make a chamber for the receipt of the tobacco.

No less interesting and ingenious are the calcareous skeletal tubes called *ngarraka* (‘bones’), of *Teredo* left when the wood has decayed. Two or three species of marine univalve mollusc shells are also used, chief of which is the shell *Turritella terebra*, Lamarck, figured in fig. 7 (4). This, known as *waiyangga*, is converted into a pipe by the removal of the tip of the shell. My informants remarked that these shells made a strong pipe, not easily broken, like *Teredo* tubes.

Tubular receptacles for the carrying and storage of tobacco are also made from bird bones *ngarraka warrakan*, of which a typical example is illustrated in figure 7 (5). The medullary cavity is closed at the distal end with a plug of ‘tea-tree’ bark and the proximal end may also be plugged loosely with a wad of the same material. The receptacles for carrying tobacco are frequently carried tied with the bundle comprised of firesticks, together with the bones of certain birds and animals which are carried for some time, and known as *kalingboi*. Such bundles, which have a ritual association, are neatly tied, and are suspended by a string and carried slung across the shoulder. At other times the tobacco-holder may be inserted under the armlet of split cane, *ngaimbak*, worn on the arm, while tobacco may also be carried temporarily inserted behind the ear.

The name for tobacco throughout the greater part of Eastern Arnhem Land is *ngaralli*, but the word *tambakko*, said to have been learned from the Macassar voyagers, is also used. There can be no doubt that tobacco was first introduced into this area from Indonesia by the early voyagers, independently of the introduction of tobacco into North Queensland, but it is not possible now to say whether the introduction was by the Macassar voyagers, who visited this coast for trepang-fishing and for pearls, or by still earlier visitors. In spite of the fact that they have known tobacco for a considerable time, the natives of Arnhem Land have never attempted to grow it for themselves, nor is there any evidence that the use of *pituri* (*Duboisia Hopwoodi*) was known to them. It appears, therefore, that although they are very strongly addicted to tobacco, they depended for their supplies entirely upon the Malay visitors from the northward who came to the coast of Arnhem Land with the North-West monsoon and returned home with the South-East, bringing with them large supplies of coarse tobacco in twist form.

In addition to the tobacco smoked in a *mardai’ inboi lungin*, there are a number of other ways in which tobacco may become tabu; sometimes tabu to women and uninitiated men, at others to certain groups which may include men as well as women.

All tobacco which is received in connexion with a *mardai’in* (ranga), or *ngarra* ceremony, a totemic ceremony of the *mardai’in* series, is *duyu*, ‘tabu,’ to all but the actual members of the totemic group who are fully initiated. This applies to gifts of tobacco made in connexion with any *mardai’in* object. Any man who takes part in a *ngarra* incurs an obligation to make large presentations of food or of tobacco and *gerri*, goods, possessions in reciprocation. This is always *mardai’inboi* (from *mardai’in*) and is held to be *duyupoi* (from *duyu*).

Similarly when a young man commences to hunt and begins to acquire prowess in killing game that is regarded as difficult to approach, particularly Emu, Jabiru, Native Companion and Bustard, which has high social and prestige value, he or his father collects the long bones until there is a large accumulation. A ceremony is then held in connexion with these. No woman, and only relatives of certain orders who have grey hair and beards, may eat this *kalingboi* food, and during the period in which these bones are carried, fire made from the firesticks, and also the tobacco that the young man may carry with them, are *duyu*, and are referred to as *kalingboi*.
Another type of *duyu* which may restrict the use of tobacco to members of circumscribed groups, is that arising from mourning practices, of which *kong wukundi* (tabu hands) or *marr marokoimirri* provide examples. The first constitute all those who are in a state of tabu so that they are temporarily excluded from the social life of the group. Generally they eat apart, and the refuse from this eating, such as shells, fish bones, as well as blood and other discharge from wounds, are deposited in this place apart, called *mangotji wukundi*, literally 'eye tabu,' hence 'tabu hole' (*mangotji*) or 'tabu place.' This group also includes those under tabu of a special type, who have recently handled a dead body (*kong wukundi*). It covers, in fact, all those who are excluded from the normal life of the society and who require to undergo a special ceremony of purification before formal readmission.

*Marr marokoimirri* is the name applied to a group of related people—an extension of the family—who have recently suffered a loss by death of one of their members. Tobacco used by the former group is *wukundi*, tabu in a special sense. Again the use of this tobacco by any 'outsiders' would be specially resented by the latter group in much the same kind of way in which we should resent an intrusion by outsiders in a family bereavement.

It will be seen therefore that the use of tobacco among these people is now intimately bound up with social and ceremonial life and must be studied in relation to the social background of the society.

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**ROYAL ANTHROPOLOGICAL INSTITUTE: PROCEEDINGS.**

**Prehistoric Cultures and Peoples in the British Isles:**


Since British Prehistoric Archreology last received public attention as a single whole, at the time of the International Prehistoric Congress in London in 1932, considerable advances have been made in almost all parts of the study of the subject, which both modify and clarify the picture then presented, and in particular offer a number of points which may be of interest to non-prehistorian anthropologists. In any case, there can be few archreological enquiries into prehistoric times to which anthropological considerations are not germane. This communication is therefore less a formal paper than a series of comments, based so far as possible on new discoveries and ideas of the last seven years, on what the prehistorian can see of the various cultures in the sequence of early periods in Britain, and on some questions concerning the peoples responsible for them.

Palaeolithic times are only briefly considered, but emphasis is laid on the obscurity which still surrounds the British Upper Palaeolithic, the Continental relationships of which must now be viewed as part of a more complicated pattern than was at one time visible. This in its turn will affect our view of the Mesolithic, the populations bequeathed by which to later prehistoric times are now realized to form an ethnic stratum of great importance. In dealing with the Neolithic and Early Bronze Age, the extent to which the various new cultures overlapped in time, and the effect they thus often had upon one another, deserves particular atten-

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