Included on the web site in memory of Prof. Nekitel whose sudden death in 2001 has been a significant loss to PNG scholarship.

Obituary: Otto Nekitel (1949-2001)

It is our duty to report the sudden death from a massive heart attack of Professor Otto Nekitel of the University of Papua New Guinea. Professor Otto Ignatius Soko'um Manganau Nekitel, born on 12.12.1949, who was a native speaker of Abu' Arapesh, was the first indigenous linguist in Papua New Guinea to receive his PhD in linguistics (from the Australian National University in 1985). He did insightful work on the noun classes of Abu' Arapesh and on sociolinguistic issues concerning the indigenous languages of Papua New Guinea. He was an intellectual leader of his people, and his untimely death will leave a gap that will be impossible to fill. We deeply mourn him.

Note – This is a paper from the 1997 Waigani Seminar – "Information and the Nation"

Traditional communications: Encoding of messages per semiotic media

Otto Nekitel, BEd, BA Hon (UPNG); MA (Hawaii); PhD(ANU)

Professor, Department of Language and Literature, UPNG

Speech communities all over the world do not only use the verbal medium (language) but also use non-verbal media to express ideas they wish to share with others. Evidence of this can be found among many preliterate societies such as those with which many of us are familiar. The need to channel messages intended for the addressee who is not present in a given speech situation is common knowledge.

Electronic age came with its pleasant surprises. One of this, was the development of durable electronic media that can convert a spoken message into electrical energy for

conveyance across distances. No doubt, telecommunication media supersede their non-electronic antecedents in form, not necessarily in function.

In a peri-literate society, such as the Abu', the use of alternative means of sending messages to talking when the addressee cannot be reached audiolingually is still practised. These we will examine and delineate in due course.

From a typological standpoint, we recognise the presence of oral, visual, aural or audiovisual channels. This paper focuses on samples of visual media of a traditional semiotic system restricting the discussion to acoustic and symbolic codes. It will not cover gestural communication because of its vexed nature and the mammoth task of interpreting the cultural meaning different communities may ascribe to each of the culture-specific gesture such as kissing; beckoning someone, rubbing of noses, hugging; buttocks, chin or scrotum stroking or patting (to indicate fondness, welcome or goodbye), karimlek and tanim head. The arrogant display of the main articulator (the tongue) by some Oceanic communities to encode hatred, dejection or sensual feeling for a "good one" may have its own cultural meaning depending on the society one represents.

Returning to audiovisual media, there are two categories that are readily noticeable, namely; visual and acoustic channels. Acoustic channels can be compared to the use of radio in the non-traditional context because both relay messages via sound waves the source emits which must then be transmitted via a channel before it can be decoded by the receiver. Acoustic channels are discussed in a little more detail below.

Acoustic channels

Among the reasonably well-known traditional acoustic codes some PNG communities use for relaying messages across relatively longer distances are the taur, the garamut, and in some situations, the kundu. The Abu' Arapesh use the three of them as well as the wandihil (a kind of a bamboo flute). The use of these media in communication must be distinguished from the general use of them during singsings where they are primarily purported to provide rhythm accompaniment to sung music and in some cases, dirges.

A message an Abu' elder encodes via the taur is done when the air stream blown through the small hole at the narrow end of the conch shell is concocted at the larger orifice at the base by a clever manipulation of the right hand which substitutes the tongue as it were thus allowing the encoder to vary the tonemic signals emitted. The taur signals made represent message-bearing juncts that manifest and represents whatever goes on in the Brocas region of the left-hemisphere. A perceptual or an impressionistic analysis of the system leads us to assume that taur signals are based on the principles of the Abu'-Miye (Wam) whistled-speech's tonemic system described in some detail by the author elsewhere (see Nekitel, 1992). The figures which follow represent the triton, the garamut and the wandihil 'bamboo flute' based on Nekitel (1985).

Garamut   Taur   Wandihil

The beats of a garamut to relay messages are also known among the Arapesh and the Abelam and other Sepik communities. Of these, none is as elaborate as that reported of the Kwoma or the Kwanga of the Ambunti and Drekikir patrol posts respectively (see Eilers 1977). The principal message that the Abu' community relays via the garamut, is the VIP's signal that men issue before or after the arrival of a kiap or a missionary. It is typified by short abrupt beats that begin with intensity but which slowly wind down to soft terminal ones, freely translated as: kul-ke kul kul kul kul kul ke kulke. It seems that the kulke garamut signal is restricted to the central Sepik communities.

What we gleaned from a brief review of literature on semiotic systems of the world, leaves us with the view that speech surrogates, as the message-bearing signals people produce on acoustic channels in the Oceania region, are not as complex and elaborate as the "talking drums of Africa" (Carrington, 1971). The topic is quite extensive indeed and is thus beyond the scope of this paper to expound. At this juncture, it appears that a good deal of the traditional acoustic channels are being abandoned in preference to modern ones. The transition is inevitable. Our only concern is the loss of what is seemingly rich part of a traditional heritage and to simply let cherished values fade into thin air is irresponsible indeed for any traditional community which prides itself on its rich cultural heritage. There are some good values that we can learn from having knowledge of them, and if deemed appropriate, such valuable knowledge may be incorporated into the new system of communication if not in form, at least in their roles as background knowledge.

It needs pointing out that some of the speech surrogates we are treating have been abandoned or are on the way to extinction because the younger generation of Papua New Guineans who, having been exposed to the inevitable invasion of the introduced modern day media, prefer them to the traditional ones. That is why we find literate Papua New Guineans prefer writing letters even to their illiterate parents which must then be read to them instead of sending them tangets.

Moreover, the use of radio, telephone and since 1988, broadcast television, is increasingly gaining both geographic diffusion and demographic popularity. Despite the apparent modern media invasion, some traditional media are still known to be

used especially by communities who do not have access to modern telecommunication and print media. This seems generally to be the case for communities which live in remote and inaccessible areas.

Visual speech surrogates

Having made the foregoing observations, we shall now focus on the way the Abu' use visual speech surrogates to encode messages. There are several message-bearing channels that are known to be used. These are: 1) plants or parts of them; 2) slime or orche and 3) the use of colours. Research done on Melanesian traditional means of non-verbal communication (e.g., see Eilers 1977 and Nekitel 1985) indicates that a good number of communities have conventionalised the use of certain types of plants as speech surrogates for representing messages that could well be expressed verbally or graphically. Constrained by illiteracy, the generally forbidding geographic conditions as well as the general lack of access to present-day communication media, communities in remote parts of the country adapt or innovate ways and means to meet the need for urgent inter- or intra-cultural communication of messages across or within linguistic boundaries.

Plants or parts of them have and are still employed by the Abu' and seemingly other PNG communities because they continue to represent messages when no one is about. An obvious example of this, is the practice of placing taboos on coconuts, betel or mango trees when they bear fruit. Taboos are or may also be made to people's gardens and homes. The plants used in the Abu' arapesh taboo coding system range from the placing at the garden's entrance or a betel or a coconut palm's trunk, a kunai (Imperata cylindriea) or a tanget (cordyline leaves) with a knot or knots tied in them. Alternatively, a croton, a cordyline or a moss-fern may be tied onto one's property to ward off thieves or pilferers. When such taboos are seen by passers-by, they keep away from them or warn each other not to get near them for they are believed to have spells cast over them. Getting near them can or may cause trespassers to get sick. Among the commonly reported ailments people develop, if they breach these property taboos are swollen limbs, testicles, ulcers and other dermal diseases. Such taboos, albeit crude in structure, function and may thus be regarded as communicatively inexplicit compared with such literary taboo signs as: keep out!, taboo!, do not touch! no entry! and the notorious--nogat Wok! ; play a significant role in society. They express the inherent or acquired rights people have to property. These unwritten rights to property indirectly contribute towards a general respect to other people's property as well as the general maintenance of law and order in society.

A closely parallel practice to the above, is the adoption of plants as land boundary markers. This is symbolised by the planting of crotons and tangets to declare a clan's or a village's land boundaries. These plants can be found at land boundary points along inter-village tracks. As a rule, these are zealously guarded against damage for they do and can act as tangible indicators of land entitlements. In this respect, the land boundary markers act as substitutes for codified land-rights that each Abu' clan has. Damages done to these land boundary markers are not tolerated and can spark off inter- or intra-village feuds and tribal warfares.

Plants may also be used to show directions to a following party. This is done by placing the bottom of the plant pointing towards a journey's destination while the top part pointing towards whence the party came. This practice reflects the Abu' general view that the top of a thing represents the beginning whilst the bottom the end of an activity.

The Abu' also use other types of plants to encode other ideas as well. One such practice is the use of a certain kind of a fern called usekesita (botanic classification: Nephroplepis sp.) to keep a tally of edible fruit (e.g., coconuts, breadfruit and mangoes) a person plucks. This becomes handy if the number picked are too many to enumerate using the relatively complex Abu' quinary base counting system. This is done when the companion on the ground clips the top part of usekesita as soon as he hears the fruit hits the ground allowing the bottom of it to stand on the midrib to match each of the fruit plucked. As a rule, a return home does not commence until the fruit plucked matched each of the partly clipped leaves.

Plants also have a symbolic function especially when employed as totems. The Abu' identify themselves as belonging to different totems (usas/numulus). These become the foci of clanhood and are, therefore, riddled with deep-seated cultural motifs, knowledge of which is complex and thus are beyond the scope of this paper. Among the Womsis Abu', some clans are named after certain varieties of lianas, bamboos, species of cordyline plants and trees. Other clans are named after different species of animals, reptiles and so on.

An important practice among the Abu' during funerals, is presenting the deceased his/her particular usas (totem) as an identity tag to show to his/her previously dead relatives when entering the place of the dead. It is believed that without the usas, the soul of the deceased cannot be recognized and may thus be rejected by dead relatives. This sums up our disscussion on the general use of plants.

We shall now turn to the more specific uses of plants. Up till the late 1950s, the Abu' people were still using the tanget to transmit messages. When an Abu' man wants to encode a messages to another via a tanget, he begins by breaking off a leaf from a variety of cordyline (botanic classification: Cordyline terminalis 'inscripta'). This particular cordyline is supposed to symbolize the 'tambaran moulomu' 'the third grade of the tambaran'. He then singes it over a firebrand to toughen it up before he ties knots which represent message-blocks as illustrated in fig. 1:

```
                    4     5
         3                              5
         4
   1     2
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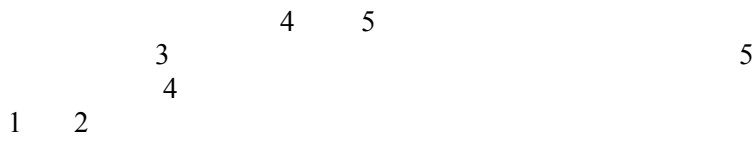
The knots are flanked by numbers for reference. All knots are generally similar in size and shape and function merely as mnemonic entities which represent blocks of messages whose actual contents must be decoded verbally by the messenger to the addressee. This he (women are excluded from this kind of activity in view of its cultural tambaran connotations that are forbidden to women) does by holding the tanget with a half-extended hand and goes through each of the knots and reiterates what he recalls as the contents of the messages rendered by each of the knots. The

contents may have to do with important dates, weeks or months that must be borne in mind before a certain social or cultural event takes place or they might be to do with the number of persons killed or to be killed by witchcraft or sanguma. In view of its social or cultural significance, the tanget must be looked after by the carrier. If he loses or damages it, he must account for the loss or damage. When the tanget is received the receiver must respond verbally or through the use of the same type of speech surrogate. The degree of similarity this traditional system has to letter writing is obvious.

The Abu' Arapesh also use a tree fern branch (Tokpisin = (wa)halio) to communicate the idea that a pig has been killed. This practice was reported to have derived from a long standing dietary habit which involved the use of young fern tree leaves as a vegetable to garnish cooked pig. When a pig is being uncovered from a du'ah (mumu) the pig's entrails, the stomach and the offal are mixed with cooked fern-tree leaves and this, as a rule, must be shared among the womenfolk. So a hunter who returns home carrying a young tree-fern branch with his shotgun or bow and arrows, the message represented is: 'I have killed a pig'. Men must get ready to go and carry the pig home and women must fetch firewood, stones and collect young fern-tree leaves for the mumu. All of these sub-activities need not be said because the message has been communicated symbolically. Just as the messages coded by the modern day traffic lights. One need not have to say `I must stop when the red light comes on' and `go when the green light comes on.' The driver instinctively responds to the instructions provided by the change of colours as agreed to by everybody.

Closely related to the above practice is the symbolic function of the okosita 'moss fern'. Its function is similar to the carrying of the young tree-fern branch save that okosita indicates that 'a cassowary has been killed'. And so a hunter returning home with a branch of okosita stuck in his hair, the message communicated is "a cassowary has been killed". Why is this particular plant used? Basically because moss fern fronds' appear to resemble cassowary's feathers.

Okosita may also be used to indirectly suggest a man's knowledge of another person's witchcraft which might be in preparation for its final execution. The person who knows about the witchcraft may show this by pulling up a number of okosita plants and strews them sporadically along the footpath he is travelling on. And if the victim-to-be is a mother with a child, then the practice is to display an okosita with a young okosita attached to symbolize that the person in danger is a mother with a child.

The use of body-paint, white slime and charcoal to communicate ideas

In addition to the use of plants to represent or communicate messages or ideas, other natural substances are or may also be used. It has been observed that a number of communities in Melanesia (especially in PNG) apply body-paints, white ochre and charcoal to symbolize people's perceptions of the "experienced world" (Gumperz and Levison 1996:1 and Nekitel 1985). The principal type of body paints include among others; plant dyes, clay paints (ochre of various hues) and charcoal. The use of body paints figures prominently during traditional folk-dances. Participants in a folk-dance may apply dye to their bodies as part of their dance decor. Different folk-dances are usually identified and distinguished from each other not only by the varied nature of rhythm beats of the hand-drums and slitgongs but are also identified by the type of body paints and the finely painted artistic patterns observed on the dancers' bodies in addition to the types of head-gear, feathers, and so on used. For example, a folk-dance called nowan (the copyright of which was bought from the

Matapau Arapesh), is symbolized by the application of white ochre to the dancers' bodies. The designs are characterised by disjointed circles and parallel lines which are made all over the body. This pattern of decoration is believed to resemble or emulate the decor of the ghost which the Matapau claimed to have given them the dance. A dance called urih, on the other hand, is typified by an application of red dye extracted from a plant with red fruit called birian. The dancers apply this red plant dye to their bodies in any manner to suit the individual's sense or taste of beauty.

The white slime or ochre is not only used in folk-dances but is also employed outside the folk-dance context and when that occurs it becomes important in its role as a speech surrogate. When Abu' mourners apply ochre to their bodies during funerals, it is meant to symbolize grief they have for deceased relatives. Up till the1950s it was customary to observe distant kin from neighbouring villages decorate themselves with white ochre when engaged in a mock attack, called uih against the relatives and friends of the deceased. Uih is manifested by the throwing of projectiles (some of which can be harmful) at the mourners, the spearing of walls of houses, the axing down of areca catechu (buai), coconut and gnetum trees (tulip) as well as other plants grown around the village.

The mock attack is performed for two basic reasons. First to demonstrate anger at their relatives or friends for causing the person to die, and second, to chase away the ghosts and sanguma believed to be present in the village. When the uih abates, the attackers retreat to where the corpse is laid and begin or continue their wailing which usually lasts for days.

Many Sepik men, including the Abu', apply charcoal to their bodies (especially to their faces) when going out on an attack. Initially it could have been applied as a form of camouflage. However, through time, it has come to be associated with anger. While red hue is associated more so with tambaran rather than to represent anger. That is why the decorations of red coloured things are often regarded esoteric and are thus reserved usually for those who have become members of the tambaran clubs. Non-initiates and women are not allowed to use red colours because they have been traditionally reserved for use by the tambaran.

What do we make out of all the foregoing discussion in so far as the symbolic values of ochre and colours are concerned? On comparative terms, one observation is clear. The Abu' (possibly the same applies to other Melanesian communities) associate colours (especially red and black ones which are most conspicuous of the colour continuum) with two important emotive states. To the Abu', white signifies an emotive state of grief, just a we believe it does for the Chinese and possibly communities elsewhere in Oceania. The same, however, is associated with joy by Western communities who instead associate dark with grief (demonstrated by the wearing of dark garments during funerals). The Abu' associate dark colour with anger while the mainstream popular culture of the Indoeuropean communities associate red with danger. To the Abu' Arapesh, red hue is highly respected in view of its association with the highest grade of tambaran, called kwal.

A question arises as to why the Abu' associate white with grief. A possible plausible explanation is to do with the popularised image of ghosts. Individuals among the Abu' who claimed to have apparitions reported that harmless spirits of dead relatives they witnessed were covered in white slime or ashes or were somewhat white in appearance while harmful ones are darkish or blackish. Perhaps the use of white colour at funerals could have derived from such an association.

The other forms of bodily markings is that to do with body tattoos. Art in the form of carvings and other engraving on wood, stones and other natural substances is an enormous area of its own complexity and design and will thus be omited from this discussion. We shall, instead, focus on a particular practice that has to do with tattoos. Admittedly we are not in a position to elaborate on this due to lack of research on it. Evidently, elaborate carvings and paintings are virtually non-existent among the Abu'.

Tattooing is practised but patterns observed on Abu' people's bodies are those of a less intricate nature, that is, unlike those the Mekeo, the Motu, the Tufi and Maori apply or have. The Abu' Arapesh tattoo types are characterised by simple dots, circles or semi-circles which are tattooed on the faces, hands, legs, chests, noses and to a lesser extent on other parts of the body. Tattoos are usually intended for decoration. However, in the post-literate period, literate Abu' have learnt to tattoo their own names or names of spouses or would-be spouses on the body usually on the less noticeable parts of the human anatomy such as the upper part of the thighs or the parts of the body lying immediately below the navel. These serve customarily as remembrances of lovers or romances people had before and (sometimes) after marriage. Unfortunately, such practice tends to become a constant cause for jealousies and feuds among spouses, an experience which probably is not unique to the Abu' Arapesh

Conclusion

The paper provided an overview of speech surrogates and was intended mainly to make the conference participants aware of some of the rich visible media for encoding messages by a Melanesian community. It demonstrated some of the media used and what communicative principles they serve and share with modern media. Interestingly, most of those discussed appear to share much in common with modern-day media and we hope those who are heavily engaged in improving communication services will sojourn along the information super Highway and recast their attention on the primitive media forms that we assumed to provide the conceptualisation bases for the development of the thriving media technology industry the world cannot leave without.

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