The Tifalmin: a 'Neolithic' people in New Guinea

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Both the Sepik and the Fly Rivers have their main sources in the mountains east of the West Irian border, flowing respectively north and south. The watershed is formed by the Hindenburg and other ranges, which rise over 11,000 ft. Much of this area falls within the limestone belt which extends along the central mountain spine of New Guinea. The ranges are very steep and heavily eroded, with deep fissures, pot-holes and jagged outcrops. They are covered by dense forest, with much oak and beech, merging into mist forest at the cloud line, and a dense tangled heathy vegetation with rhododendrons on the exposed tops. Although rain falls on most days surface water is difficult to find. Even in the valleys there are few subsidiary streams. The limestone belt formed a formidable barrier to European explorers with large numbers of carriers and native police (Champion 1966), but is much less of an obstacle to native movement. A small party or an individual, travelling light, can cross the Hindenburgs and reach a hamlet on the other side in two or three days.

The Tifalmin inhabit part of the valley of the Ilam, a minor tributary of the Sepik, in the Telefomin Sub-district (fig. 6). The floor of the valley, at about 4,500 ft, seems to be an old lake bed, in which the Ilam has cut itself a deep trench. The Tifalmin number between 500 and 600 people, and are divided into four groups, all of which fought the others though they formed temporary alliances. All were enemies of the Urapmin, who live in the lower part of the valley. The two upper groups have friendly relations with the Wopkeimin, on the southern slopes of the Hindenburg Range where the streams drain to the Fly, and say they never fought them; the two lower groups have similar relations with the Fegolmin, to the east of the Wopkeimin. All the Tifalmin trade with the Atbalmin, a semi-nomadic people in the wild mountains to the north, but they also fought. All these tribes were cannibals but not head-hunters.

When studying the material culture of the Tifalmin and making a collection for the British Museum in 1964 I was struck by the paucity of evidence for their technology and way of life which would, I thought, survive to be found by an archaeologist working after a lapse of a few hundred, let alone a few thousand, years. It is this aspect that I wish to emphasize in the following account.

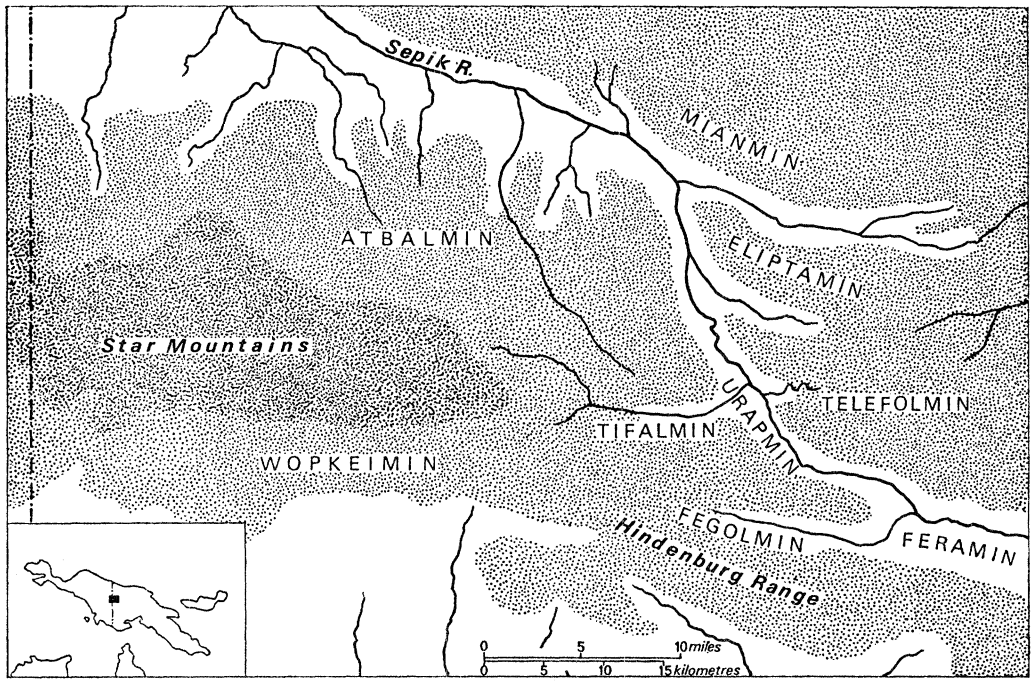

Figure 6 The tribes of the Western Sepik–Fly watershed

Material culture and subsistence

The Tifalmin have a 'neolithic' technology and economy. When used in such a context the word always requires qualification; any close comparison with the neolithic of Europe and the Near East could be deceptive. Steel axes became generally available after 1944 when they were introduced to the Telefomin valley with the establishment of an emergency landing strip. The traditional tool was a ground stone adze fitted to an elbow haft. By 1964 the introduction of the steel axe and the bush-knife had not significantly affected the general technology. Any middle-aged man was familiar with the use of the stone adze (plate 3). One cut down a tree of 3 ft 4 in. circumference, with a stone adze, in 24 minutes of steady work. He later cut down another of the same species and of 3 ft 10 in. circumference, with a steel axe, in eight minutes. This efficiency ratio for steel to stone, of about 4:1 or 3:1, is confirmed by other observations in New Guinea (e.g. Salisbury 1962: 219–20; Townsend 1969). Stone would show less favourably over a longer working period because of the need for more frequent resharpening.

Apart from the stone adze the traditional kit of wood-working tools remained in use. Only a few knives had been obtained. Relief carving on wood was carried out with small chert flakes (obtained from the Fegolmin) or with a small stone adze blade, quite different in shape from the hafted adzes, held in the hand. Only one of these was seen, and its origin could not be discovered. A round-ended gouge of cassowary femur is used to lower the level in relief carving. Half of the mandible of a small marsupial with an incisor tooth in place is used to sharpen bamboo arrow-heads or to incise patterns on bamboo

cigarette-holders. The serrated lower mandible of a species of lizard provides a miniature saw to make a nick in small-diameter bamboos so that they can be broken cleanly.

Bamboo knives serve for skinning and cutting meat and preparing vegetables. Unlike those of some other parts of New Guinea, they are not carefully prepared. A sliver of bamboo of suitable length is used; when it becomes blunt a strip is peeled back to give a new sharp edge, and after use the knife is discarded. A pig was quickly and efficiently butchered with only bamboo knives and an unworked stone which was used to break the ribs and the pubic bone.

Like many other peoples of highland New Guinea, the Tifalmin believe that contact with women diminishes the essentially male qualities necessary for success in societies in which power is in the hands of self-made 'big-men'. They therefore have two sorts of houses. At night the family houses are occupied by women, girls and males too young or too old to count as men in a social sense. Men and older boys sleep in the men's house, which is the centre of male affairs. Women may never enter it. Hamlets vary in size from two to about ten houses: they can never have less than two because even a single family must have its separate men's house.

Men's houses and family houses are identical in construction (plate 4). They are about twelve feet square with rounded corners. The floor, which is constructed first, is raised about a foot above ground level, supported by a number of short posts (plate 5). In the centre is a square opening for the hearth. This is made by placing short split timbers with their lower ends on the ground and their upper ends against the floor poles. Some large stones are placed in the bottom; then clay is piled in and is trodden and smoothed by hand or with a round stone to make a shallow bowl-shaped hearth (plate 6). Four poles at the corners support a rack for drying wood. The walls are of light poles driven into the ground and lashed with strips of bark. The pitched roof is supported rather haphazardly by the wall poles, and is thatched with grass. Finally the floor and the walls are lined with sheets of bark of the mountain pandanus. Occasionally, a family house may have inside it a pen for an ailing pig. The houses are placed round a dancing ground of bare earth.

At a short distance from each hamlet there is a house to which women retire periodically and at childbirth. This is usually a low hut with an earth floor.

Hamlets were sited, for defensive reasons, on promontories jutting out into the river trench, on low hillocks or on steep-sided spurs in the bush of the valley sides. They moved frequently, though often only short distances, moves being dictated, apparently, by the fact that until the Administration persuaded the Tifalmin to dig latrines they had no sanitary arrangements. They told me that when people and pigs started to be unhealthy it was time to move. Exhaustion of garden land was not a main reason.

Houses are also built in the gardens. Often these are simple sheds to give shelter from rain and sun, but in the more distant gardens there are houses, like those in the hamlets, in which families live for several weeks.

The only other considerable structures made by the Tifalmin are bridges and garden fences. There are two bridges in their territory. Both span the Ilam where it runs through gorges. They consist of rigid pole footways, with handrails, lashed with creeper or strips of bark. The span of each is about 23 ft and the height above water over 50 ft (plate 7).

For their subsistence the Tifalmin depend mainly on their gardens. They practise long-fallow cultivation, clearing a patch of forest and abandoning it after two or three years, probably for fifteen years or more. They do not cultivate the valley floor because much of it is badly drained and, by native methods, the grass is uncontrollable. The gardens are therefore on the sides of the valley or of the river trench. The trees are killed by ring-barking or by building bonfires against them (but many are left standing), and undergrowth and scrub are cut and burnt. The main crops are taro and sweet potato. Taro, the most valued, is really unsuited to the altitude and takes up to two years to mature. Sweet potato is the stand-by in times of scarcity, but the Tifalmin say that it is fit only for white men (who usually prefer it) and pigs. Unlike taro it has no part in ritual. They also grow bananas, sugar-cane, beans, cucumbers, gourds, tobacco, a very few yams and some greens. The only cultivating tool is the digging stick, a pointed stake about four feet long, which is used both for planting and for digging up the root vegetables. It is a very practical tool, for the ground is a mass of roots and a spade or a hoe would be of little use.

The gardens are strongly fenced against wild pig, which are common. Building fences and the heavy clearing are men's work; burning, clearing lighter growth, planting and weeding are shared by both sexes. The Tifalmin are continually clearing, planting and harvesting. Though rainfall varies somewhat from month to month there are no marked seasons.

There are separate gardens at about 6,000 ft. in which the mountain pandanus is cultivated. Usually nothing else is grown in these gardens.

The only domestic animals are the pig and the dog, both of which are eaten. Pigs forage for themselves by day but come home to be fed at night.

Hunting and gathering occupy a good deal of time and provide an important though minor proportion of the food consumed. Game is more plentiful than in the densely-populated Highlands districts to the east. If a wild pig is seen every man in earshot grabs his bow and goes after it. Whenever possible the hunt is carefully organized, beaters driving the pig on to a line of bowmen. Cassowary are relatively common. The several species of lesser marsupials are hunted, and no bird is considered too small to be eaten. The only hunting weapon is the bow, made from black-palm wood strung with rattan. Arrow-heads are of carved wood or bamboo, the latter being preferred for shooting pig or cassowary. Special arrows with blunt heads are used for shooting birds-of-paradise, to avoid drawing blood and spoiling the plumage; and arrows with several points splayed outwards (the type often used elsewhere for shooting fish) are used against small birds, which if not pierced are often held between the points.

Pit traps are dug for pig. They are not armed with spikes as are those of some neighbouring tribes – fortunately, for one was said to have caught three pigs, one of the owner's sons and a man from the next valley. Traps consisting of nooses tightened by a bent wood spring with a toggle release are made to catch game of all sizes.

Women and boys collect eggs, wild fruits, fungi, insects, grubs, small lizards, frogs and tadpoles (there are no fish in the streams). Men will not eat these latter, though they may help to collect them. Tadpoling expeditions have the air of a family outing. Certain male foods are taboo to women and children.

In war too the only weapon was the bow. War arrows usually had barbed wood heads.

In formal fighting a large carved wood shield was carried by one man and one or two others used their bows from its cover, but for raiding or ambushing shields were left behind (Cranstone 1968). Bone daggers, used elsewhere in New Guinea, were not known. The only other artefact associated with warfare was the cuirass, or corselet, of plaited rattan, which gave some protection to the thorax and abdomen.

The bow is not an accurate weapon. The arrows are not feathered, the wood or bamboo heads are often unsymmetrical, and the shafts are frequently not straight. But the bow is very powerful and the rate of fire high. Many middle-aged men bore the scars of arrow wounds.

For internecine quarrels, in which the use of the bow was not permitted, formidable-looking wooden clubs were employed; but these were not normally used in warfare.

The traditional male dress is the penis gourd: a piece of the stem end of the gourd, varying in length from about three to more than twelve inches, into which the penis is inserted, leaving the scrotum exposed. It is fastened by a cord to a waist-string or girdle. Female dress consists of very short skirts back and front, leaving the flanks bare, made by doubling lengths of sedge over a waist-cord and securing them with a running string. The sedge is cultivated in swamp pools.

Both sexes, but especially the men, have a variety of ornaments: necklaces of pigs' teeth, fresh-water mussel pendants, pigs' tusks, string bands to which cowrie or nassa shells are attached, seeds of *Coix lachryma*. Men wear a variety of fur and feather head ornaments when dancing. They also have girdles of dogs' canines on a string base, and chest pendants of cone shell.

Male nose ornaments are especially elaborate. The septum and the *alae* are pierced and two holes are made in the tip. The septum takes a stone, bamboo or bird-bone pin, or a pig's tusk. Through the nostrils cassowary quills are passed vertically, sometimes decorated with feathers, and either held back by a forehead band or curving forward like antennae; into the holes in the tip are inserted a pair of horns of a rhinoceros beetle or the ends of a grass stem holding a small pearl-shell plate.

The peoples of New Guinea do not weave. In the Telefomin area they do not make bark cloth by felting bark fibres, as do some other mountain peoples. They have no knowledge of pottery, and they do not make baskets or mats (though the cuirasses are made by a a basketry technique).

For holding liquids they use gourds or lengths of bamboo. For storing and carrying solids string bags meet most requirements. The bags are made with continuous interlocking figure-of-eight loops, the only implement used being a fine needle of 'flying-fox' wing-bone. The string is made from bark fibres rolled on the thigh. As there are no knots the bag stretches in any direction. They range in size from not much more than an inch (to contain a charm) to those large enough for a heavy load of vegetables or firewood. Babies sleep happily in them, slung on the mother's back or from a branch while she works in her garden. Women wear the sling across the forehead, and the bag is almost an article of female clothing. Some men's bags, decorated with feathers, are worn on the back as dance ornaments.

Daily meals consist mainly of taro or sweet potato roasted in the fire, with raw or cooked banana. Any small game is often roasted on the spot. Some foods, such as tadpoles or certain leaves, are boiled in lengths of bamboo, the food being cooked before the

bamboo chars through. Tadpoles, beetles and grubs are often eaten raw and alive. For more important occasions, such as when a pig is killed, a variant of the Oceanic earth oven is employed. Stones, heated on a fire, are fairly closely spaced on flat ground, and banana leaves are spread over them. The meat, in leaf packets, and vegetables are laid on top and covered with more leaves. Unburnt logs from the fire are often put on top to hold the leaves in place. Some foods are served on rather crudely carved wood platters, and spoons are made from pigs' scapulae; one collected was made from a hornbill's beak (the hornbill is not found at this altitude). A few dishes made from sago-spathe were seen. These are obtained from the Wopkeimin, in the lower parts of whose territory wild sago grows.

Fire is made by the flexible thong method. A stick is split, the split is held open with a wedge, and the split end is laid on tinder: dry leaves or old grass thatch pulled from a roof. A length of rattan is passed under the split, the stick is held down with one foot, and the rattan is sawed rapidly to and fro. Smoke appears in five seconds or upwards and a flame is obtained in forty seconds or less. Some of their neighbours make fire by striking two pieces of iron pyrites together (Craig 1967), but this is not a traditional Tifalmin method.

Tobacco, grown in the gardens, is smoked as cigarettes rolled in leaves of certain bushes and usually held in cigarette holders of creeper or small-diameter bamboo. The latter often bear incised patterns.

Musical instruments are few and simple. Waisted wood drums, with a lizard-skin membrane at one end, are beaten by men as an accompaniment to dancing. The lower ends are carved in relief and coloured. Men play bamboo jews' harps, and girls have a simple one-string musical bow. There are two forms of cane flute, one of which at least may be a recent introduction.

It is impossible to make a clear distinction between religion, magic and medicine. The traditional cult is one of ancestral spirits, and its centre, for the Tilfalmin, is the cult-house in Brolemavip hamlet. This is in construction exactly similar to the family and men's houses; but it is unique in the valley in having its façade covered with about twenty carved boards set vertically. These are merely attached and have no structural function (Cranstone 1967). The house is not inhabited, and only senior men may enter it. Inside are a number of string bags containing ancestral relics (bones, wisps of beard and the like); a crocodile's skull (the crocodile does not penetrate into the Ilam); and two stone-headed clubs. The walls are lined with pigs' lower jaws. The clubs, of the type associated with the southern lowlands, are ritual objects, not weapons. A number of the stone heads, painted with red ochre, were piled outside the cult-house at Telefolip in the Telefomin valley, the main cult centre for the whole district, and these as far as I know were never hafted or removed. Boys and men were progressively admitted to the secrets of the cult by a series of initiation rites, after which certain food taboos were lifted and others imposed.

Many other spirits, living on the mountain tops or in the bush, are feared; but the sanctions which uphold social life come from the ancestors, whose influence is naturally conservative. Their power can be utilized in a direct way: for instance the jawbone of a notable gardener, buried in a garden (to be recovered later), brings a good taro crop.

All men possess a number of charms, and some of these include human relics. Two

pieces of human skull were said to be powerful hunting charms; but they had been bought from the Atbalmin, and their power therefore can be regarded as purely magical, not connected with the ancestor cult. The Atbalmin are the great providers of charms, though some come from the peoples to the south. Most are objects foreign to the Tifalmin valley or of unusual size or form. Fossils, obtained from the Atbalmin, are among the most common; but bones, claws or other relics of animals from the foothills, naturally-pierced stones, unusually large seeds, are also often found. Most charms are connected with a specific activity, such as hunting or war. One conferred invisibility when stealing from a garden.

Charms are also effective in healing. A fossil shark's tooth was said to have been used for cutting arrow-heads from wounds, for which purpose its magical qualities would no doubt have reinforced its functional ones. Bones and fossils are used for massaging painful places. Massaging by hand is also a common practice, always with the accompaniment of a spoken spell. Some methods seem to be practical rather than magical, such as the treatment of headache by thrusting grass stems up the nostrils to make the nose bleed.

The Administration has now persuaded the Tifalmin to bury their dead near the hamlets. Traditionally corpses were left in caves or overhangs of the limestone outcrops on the sides of the valley, or exposed on platforms in trees, or placed in hollow trees. All such sites are accessible to birds or other animals, and bones are usually disturbed and mixed. Remains of personal belongings, such as string bags, can occasionally be seen. The mass of bones in one cave included sixteen skulls. After a period of exposure certain bones of particularly notable men would be recovered and kept in the cult house or the men's house.

Trade

Simple though their technology is, the Tifalmin could not have existed without trading. Owing to the altitude and other factors the environment does not provide certain essentials, two in particular. In the limestone belt there is no suitable stone for making adze blades, and without adzes not only could houses, bridges, shields and other items not be made, but forest could not be cleared for gardening. Adze blades were obtained from the Atbalmin or the Wopkeimin. The other essential item is the bow stave, made from black palm, which is not obtainable – not, at least, of the right quality – at this altitude. The bow is effectively the only weapon, and life would have been impossible without it. It is still of great importance for hunting, and no man moves far without one. The staves are mostly acquired from the Wopkeimin. Many other items are obtained by trade: drums (which for some reason are not made by the Tifalmin) and charms from the Atbalmin; rattan for bow strings, dogs' teeth, string bags, sago-spathe dishes, stone nose-pins, stone club-heads, from the Wopkeimin. Chert flakes come from south of the Hindenburg Range. Trade axes and bush knives seem to have first reached the Tifalmin from Dutch New Guinea through the Wopkeimin. Sea-shells of several types were seen by the first Europeans to arrive, though the people knew nothing of the sea.

Plate 1 The interior of a Fulani compound: kitchen and sleeping huts stand in the foreground with a storage hut to the rear. To the left rear is a thatch-covered granary; on the right stones have been laid down as a platform for the cooking pots. The area between the huts is surfaced with fine gravel

Plate 2 Immigrant labourers repuddle the walls of a hut to build another of which two courses have been laid. The tools include a locally made copy of a European shovel and a wooden club

Plate 3 A Tifalmin felling a tree with a stone-bladed adze

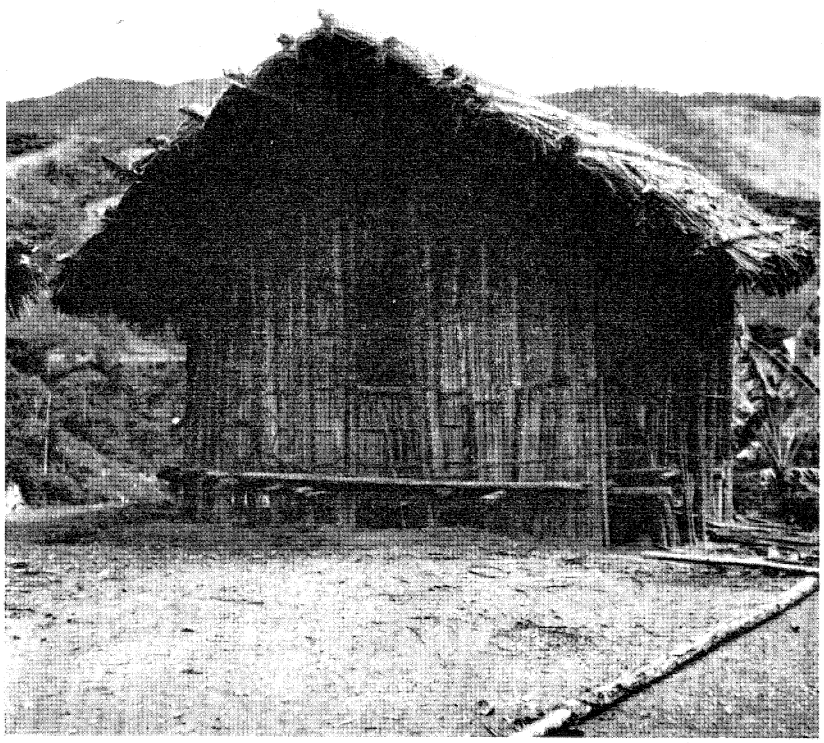

Plate 4 A Tifalmin family house

Plate 5 A corner of a Tifalmin house under construction, showing floor supports

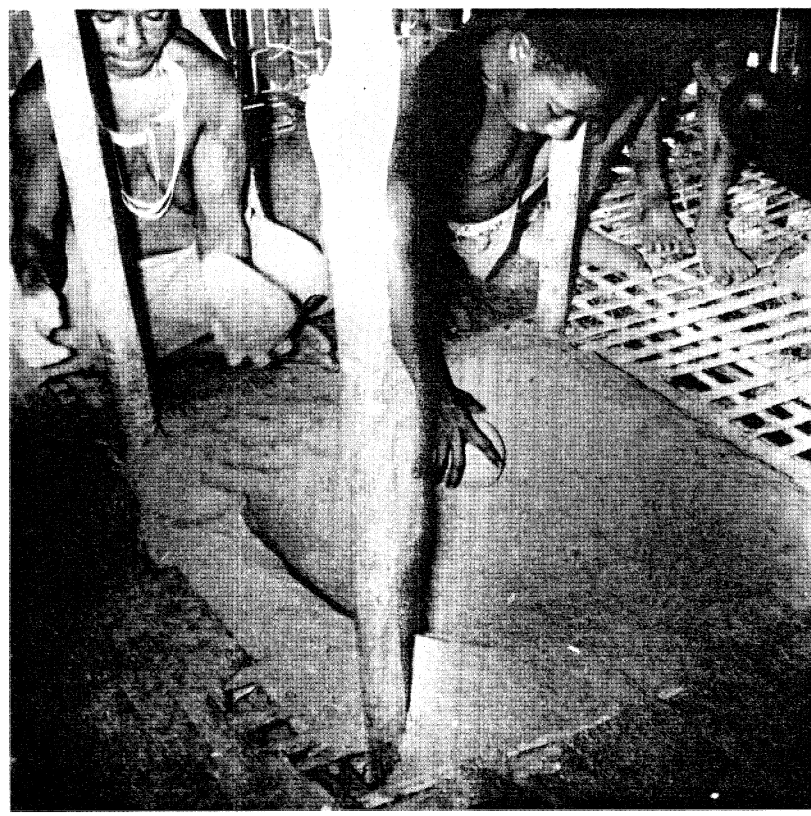

Plate 6 Completing the hearth of a Tifalmin house

Plate 7 A Tifalmin bridge

In return for these imports the Tifalmin's main export was tobacco, which grows well in their valley. Pigs and large string bags are both exported and imported, and other items too, such as plumes of the various species of bird-of-paradise, move in both directions. Arrows are exchanged freely, a common practice in New Guinea. Nowadays the Tifalmin obtain trade goods when the missionary visits them and pass them on to their neighbours; but tobacco is still their most valuable product.

The Tifalmin and the archaeologist

Tifalmin culture is a very simple and small-scale one: simple even by the standards of other 'neolithic' cultures in New Guinea, where many single villages contain more people than the whole Tifalmin population. But in spite of its simplicity it strikes one as an efficient and stable adaptation to environmental circumstances. There is at present plenty of land. The continual warfare seems to have caused a steady drain of casualties but not catastrophic losses, though tribal groups were undoubtedly broken and driven from their territories over a period of time (see Cranstone 1968 for a discussion of this point). Food shortages seem rarely to have been serious, and are caused mainly by inefficient planning, for extended drought is rare. High winds or destructive storms are very unusual.

The whole limestone belt along the Fly–Sepik watershed is in some respects unstable. Major earthquakes, such as occur in north-coastal areas, are not common, but minor shocks are fairly frequent. The very steep forested slopes are liable to landslides, the scars of which can be seen everywhere from the air (and see Champion 1966 *passim*). Tifalmin hamlets are usually built on the lower slopes or floor of the valley and so are generally not in danger from the type of movement which occurs on the steep ranges, where a thin layer of soil slides off the underlying rock. However, on some grassy slopes one can see cracks where the hillside is beginning to slip. A greater danger arises from the fact that some hamlets are placed below, or at the crest of, the steep slopes of the river trench, which being cut in sedimentary deposits are very unstable. In March 1971 a slide about 400 ft high and a third of a mile wide totally obliterated a hamlet beside the river Ilam (I am indebted to the Rev. Brian Beaver of the Australian Baptist Mission for this information). Even if they escape such catastrophe the situation of many hamlets makes them particularly liable to erosion, often accelerated by run-off from the bare dancing ground. Erosion can be very rapid: a side-gully near our camp was cut back more than a foot during one night of heavy rain. So it seems likely that in the course of a few centuries many sites would disappear completely.

As sites were not occupied for long the accumulation of débris from one occupation would be relatively slight; but because the sites were chosen not arbitrarily but for defensive reasons they would probably be reoccupied frequently. There are no man-made defensive works. What would one expect to find on a hamlet site?

First, the evidence for the houses. Poles are rarely set in the ground more deeply than about a foot, and no trench is dug: the poles are set by repeatedly thrusting them in, exactly as in using a digging-stick. When a house is moved any sound poles – together

with the floor as one unit, and the halves of the roof as two – are taken to the new site. The most obvious remains are the stones and burnt clay of the hearth, which lie on the natural surface.

The Telefolmin hamlet of Telefolip is an exception. Because of the sacredness of the site it has not moved and there is a considerable accumulation of débris under the houses (plate 8). There is no comparable site in the Tifalmin valley.

In several instances it appeared that gardens had been made on old hamlet sites. These sites might be especially difficult to detect, because tree roots, during the fallow period, would tend to destroy such evidence as postholes; and, moreover, postholes are little deeper than the holes made by the digging-stick in planting taro or banana slips, so that any recognizable pattern would be obscured. The meticulous clearing of débris which follows burning would scatter the remains of hearths. The same considerations would apply to the garden houses which are sometimes inhabited for quite long periods.

The garden fences, strongly made with pairs of vertical posts and horizontal poles, would probably leave as much trace in the ground as house-poles; but the gardens are scattered over a very wide area, mostly in bush, and have an altitude range of about 2,000 ft, so the finding of fence-post holes would presumably be a matter of chance. Bridges would leave hardly any trace. Their main supports are often living trees.

Apart from the traces of houses, other cultural evidence would depend on what the lapse of time and local conditions allowed to survive. If all had perished except stone the evidence would consist mainly of adze blades, perhaps including the small aberrant type mentioned. There could also be a small number of unworked chert fragments. Stone club-heads might give a false impression that they were important weapons. There might be an occasional stone nose-pin, and there would certainly be fossils. All these articles could be proved to be imported. It would also be possible to find unworked river pebbles, used for such purposes as breaking bones and crushing pigments or pandanus nuts, which would not easily be recognized as implements; a flat stone which had been exposed to fire (used in straightening arrow shafts); and stones on which adze blades had been reground, bearing the marks of this use.

Shell could add nothing of technological importance; only ornaments of various kinds. It could be guessed that pierced fresh-water mussel shells, of local origin, must have been neck pendants or components of necklaces. Other shell ornaments – of conus shell, pearl-shell, cowrie or nassa shells – are of marine origin.

If bone and teeth survived there would be a good deal more. Cassowary-bone gouges might present problems of function: they are in fact used for carving fairly soft wood and in preparing the fruit of the *marita* pandanus, but elsewhere in New Guinea similar tools are used for a variety of purposes. It might be suspected that a half marsupial jaw with an incisor tooth was a carving tool, but no special preparation would prove this. Pigs' scapulae adapted as spoons, bone needles and awls, a cassowary breast-bone used to hold red ochre – this completes the list of bone tools and utensils. There would also be ornaments: bird-bone or pig's tusk nose ornaments; vertebrae, claws, feet, tails of various creatures as part of necklaces. Numbers of pigs', dogs' and marsupials' teeth, perhaps found together, would suggest necklaces or girdles. There would also be bones of animals not now found in the higher valleys: river turtle, echidna, crocodile. Their magical significance might be deduced. Who would also suspect the use of some of them

in massage? And who would suspect that fragments of human skull were imported for magical use? On the other hand, human and animal bones would no doubt be found mixed together in circumstances which would rightly suggest cannibalism.

Human bones would also be found in and near the caves and shelters in which bodies were deposited, but they would be much scattered and mixed. Some of the shelters may have been habitation sites in the past; but most are a long way from a water supply. At higher altitudes they would have traces of occasional overnight occupation by hunters or travellers.

If wood had not survived there would be no evidence of weapons, except the misleading presence of stone club-heads. These could suggest closer cultural links with the club-users of the southern lowlands than seem in fact to exist (though artistic and linguistic links have been suggested: Craig 1966). The Tifalmin use nothing except wood or bamboo for their arrowheads (the only exception seen was an unmodified vertebra stuck on a broken foreshaft for use as a bird-bolt). Nor would there be positive evidence for the presence of the essential string bags, except bone needles which could have other uses; moreover string bags can be made without them (Blackwood 1950: 49).

It is difficult to see what evidence could be found for the reliance on root vegetables, still less for the presence of sweet potato and taro and the uneconomic preference for the latter, except that the sweet potato does flower and produce pollen. In view of the casual habits of the Tifalmin the finding of coprolites seems unlikely. Indeed, what firm evidence would there be for cultivation? The population is little above the level which could be supported by hunting and collecting. There are no store-houses. Gardens would be difficult to identify. Since domestic pigs forage freely and interbreed with wild pig it would hardly be possible to distinguish a domestic strain unless their remains showed evidence of castration, which is commonly practised.

Finally, a point which I have discussed elsewhere in a wider context (Cranstone, in press) but which is particularly relevant to the Tifalmin situation: the estimation of population on the basis of settlement and house sites. In some archaeological contexts it is justifiable and reasonably accurate to do this by estimating the average size of the basic social unit and multiplying by the number of houses. In other instances it can be highly unreliable; and the Tifalmin seem to provide a good example.

There is often difficulty in deciding whether individual houses or settlement sites were occupied simultaneously. This would certainly be true of the Tifalmin with their pattern of frequent movement. Further, at any time one or more houses in a hamlet are likely to be unoccupied. A family may have gone to visit their Wopkeimin friends, with whom they may stay for a month or more, working in the gardens in return for their food and taking the opportunity to do some trading; or they may be living in a distant garden which has come into production. On the other hand a Wopkeimin family may be present on a visit, doubling up in the family and men's house.

Brolemavip, the hamlet in which the ancestor-cult house is situated, had ten houses (not counting two earth-floored women's retirement houses a little distance away). Of these ten, one was the cult house; three were men's houses; six were family houses. An estimate based on equating the number of houses with the number of families would therefore be 40% in excess. Two of the family houses were removed to another hamlet within six weeks, as a result of quarrels. A similar calculation for the one-family hamlets,

of which there are a number especially among the Dubalmin sub-group, would be 100% in error since each consists of two houses, a men's house and a family house.

It may be that I underestimate the resources of modern archaeology, and I am sure that archaeologists are alert to such difficulties as I have described. My purpose has been to demonstrate, with a concrete example, that it may be impossible to draw the right conclusions because of the nature of the surviving evidence.

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Abstract

Cranstone, B. A. L.

The Tifalmin: a 'Neolithic' people in New Guinea

The Tifalmin, a small tribal group of the central New Guinea mountains at the headwaters of the Sepik River, have a simple 'neolithic' culture based primarily on long-fallow cultivation of taro, sweet potato and bananas. They keep domestic pigs, and hunting and collecting are important in their economy. Their material culture is described, weaving, pottery, basketry, matting, and bark-cloth being absent; and their dependence on trade for certain essentials, especially stone adze-blades and bow staves, is explained as being due to environmental factors.

Finally the evidence for their culture which might survive to be found by a future archaeologist is discussed, and it is shown that such evidence would be not only incomplete, but also misleading.

The section on Micronesian chieftainship includes an exceptionally detailed article by Shimizu on Pohnpeian feasts, the structured activities of which replicate and validate the fundamental sociopolitical structure of the chiefdom. Ushijima's article on Yap is opaque to general readers, for it is filled with words and names that only a Yapese speaker or specialist will be able to decode. Of wider interest—but curiously out of place in this volume on Micronesia—is a paper by Yamamoto on the title system of Faleata district, Western Samoa.

The section on folk knowledge contains two chapters on Satawal. Ishimori attempts a structural analysis using familiar dichotomies (e.g., "ordinary"/"nonordinary") of the types of songs and dances on the atoll. Akimichi's paper on Satawalese food categories describes the staple-complement-drink classification widespread throughout Micronesia and Polynesia. It is unfortunate that the author hardly deals with what the people of Satawal actually eat, leaving us to speculate about how their cultural classification of foodstuffs affects their behavior. Those curious about knowledge of architectural forms and construction methods in Micronesia will be interested in Sugito's detailed and illustrated chapter on Elato. Komatsu describes a Ulithian folktale about a female monster with a toothed vagina. After comparing a Jungian psychological analysis with a cultural analysis of women as "other" and "nature," Komatsu of course is unable to choose between them.

The final substantive section contains two chapters, by Aoyagi on Belau and Nakayama on Pohnpei. Aoyagi presents a valuable history and social analysis of the Modekngei religion, a movement that began on Belau in the early 20th century. Nakayama's account of the acceptance of Christianity on Pohnpei invites comparison with other islands in which Christianization was the outcome of depopulation, desire for Western material goods, and internal political rivalries and class conflicts.

The volume concludes with an annotated bibliography by Ishikawa and Ushijima on the ethnological research done in the islands by Japanese scholars since 1884. This chapter is valuable to North American Micronesian researchers, for the titles are translated into English.

This book will be of interest primarily to Micronesian specialists and perhaps to those curious about how anthropology is practiced in Japan. In this North American's view, the papers are generally rich in description but lacking in theoretical interest. Many chapters are weakened by an overuse of indigenous terms, which makes understanding difficult for the uninitiated. There are also the problems with spelling, diction, clarity, and style one might expect in a translated work.

First Contact. *Bob Connolly* and *Robin Anderson.* New York: Viking, 1987. 332 pp. $19.95 (cloth).

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Opportunity maximized: films of the New Guinea Highlands taken in the 1930s by Michael Leahy were provided by his widow to the authors after his death in 1978. Then Connolly and Anderson traced and interviewed Highlanders about their recollections. The discovery of the world's last large unknown population is documented in pictures and interviews with survivors. The initial result was a prize-winning film called *First Contact,* which interleaves Leahy's films and still photographs with contemporary color film and interviews. This new book with the same title is based on a larger set of interviews, and some other published and documentary materials, including the diaries and written reports of Leahy and other Australians. When the story is told now, some 50 years later, participants remember their amazement and confusion at the sudden appearance of these White Australians accompanied by native police and carriers. Many report that they thought these visitors were dead ancestors. Clothing concealed their bodies, so they were thought to be spirits without all human functions.

This patrol and events later, after the Leahy brothers had settled and begun panning for gold at Mt. Hagen, are examined by the authors and their informants. Highlanders had no direct contact or knowledge of the outside world before this startling visit; the reconnaissance plane and supply planes supporting the patrol, followed by visits of a few Highlanders to the towns of coastal Papua New Guinea, opened to them the Western world. Food and labor were readily given for salt and shells; it was the beginning of an era of shell payment, which dominated Highlands exchange until money took over.

In 1930, prospecting with a partner, Leahy reached unknown territory in the Highlands but mistook his location and directions. When he returned to penetrate the Asaro, Chimbu, and Wahgi valleys Leahy was accompanied by Australian officers and police, as well as his brother Danny, who tells his story in the film and this book. The main part of the book con-

cerns the recalled experiences, reactions, and interpretations of the Highlanders to the encounter. Interviews focus on "What happened? What did you do? What did you think about the strangers?"

The book also attempts to assess Leahy's actions and motives. In the 1930s there was nothing exceptional about Leahy's White supremacist attitudes and conviction that as White men they had the right to intrude upon the people, prospect and mine in the area, pay for food and labor with inexpensive shells and salt, deal in women, and shoot anyone who attempted to steal the White man's goods. We learn that he was afterwards bitter because he felt insufficiently honored for his discoveries.

Connolly and Anderson, the authors, are perceptive modern Australian writers and filmmakers. They make no claim to scholarship. In reporting what seem to be well-translated interviews as though verbatim, they make vivid reading. Exact citations are rarely given, and they can be careless about rendering and spelling Highlands names. They assume a generality of belief and reaction of Highlanders, except occasionally when using material taken from anthropological or historical sources. They do not question social and cultural underpinnings or meanings of these events in terms of Highlanders' understandings. Throughout, Leahy's contact with the Highlanders is called an "encounter" and never an intrusion. Where the book recounts events also described in M. Leahy's book *The Land That Time Forgot,* it sometimes takes a different line and is revisionary with respect to some events, particularly the violent ones where killing of Highlands people has been understated in reports. Retaliation for theft or injury to Whites was considered a right by the Australians.

Papua New Guinea has been independent since 1975. Only aged witnesses of the first contact visit survive now. The current view of the colonial era by young Highlands people and Australians does not accept the assumptions of the explorers and first settlers. Present-day objections to colonial rule may be fired by this book.

For the reader, it is a lively, wonderfully illustrated account of Leahy, which presents the Highlanders' reactions to this first encounter in their own words. By clearly identifying the voices, it is an important contribution to redressing the imbalance of historical writing, as it presents history from the spirited statements of the Papua New Guinea Highlanders who saw it happen.

The Fame of Gawa: A Symbolic Study of Value Transformation in a Massim (Papua New Guinea) Society. *Nancy D. Munn.* The Lewis Henry Morgan Lecture Series. New York: Cambridge University Press, 1986. 350 pp. $39.50 (cloth).

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The Fame of Gawa will sit comfortably on the shelf alongside—or perhaps even replace—Malinowski's *Argonauts of the Western Pacific* as a classic in anthropology. Based on research conducted over a total of two and one-half years from 1972 to 1981, Munn's book, as Malinowski's in its time, escorts us to the *kula* region and masterfully integrates cultural analysis with detailed ethnography. *The Fame of Gawa* is concerned with how members of a society transform action into value, thus creating a sense of communal viability in their inter-island world. The renown of Gawa, a small island located midway between the Trobriands and Muyuw (Woodlark), is produced through a process that involves the separation of internal elements of the society, such as food and canoes, and their exchange in a regional context.

In a well-structured first chapter, where the author explains her terms and analytic concepts, we are given an intimation of the profound and complex analysis that will follow. The main body of the book is divided into three parts that analyze the creation of value in terms of (1) food consumption and transmission; (2) marriage, mortuary, and entertainment exchanges; and (3) witchcraft.

The first part is the strongest and most successful in integrating ethnographic particulars with the author's more general anthropological model of value creation. Food giving, the most basic form of generosity, is analyzed in terms of the contradiction between releasing food and retaining it. Consumption destroys the potential for transforming food into anything of value in the future. Giving food, on the other hand, is at the base of a man's ability to create successful *kula* relations for himself. Food is presented to create hospitality, which is converted into concrete *kula* shells; these are transformed into oral names and, ultimately, into fame.

Next, in a section that is less successfully integrated into the whole, Munn presents a template that governs three key Gawan exchange cycles—namely, those of marriage, death, and community entertainment. Whereas marriage exchanges are primarily positive, those at mortuary feasts entail both positive and neg-

First Contact. 1983. A film by *Bob Connolly* and *Robin Anderson*. 54 minutes, color and b&w. Purchase $800 (16mm), $700 (video), rental $75 from Filmakers Library, 133 East 58th St., New York, N.Y. 10022 (212/355-6545).

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Film distributors are often guilty of overstatement in their promotional flyers, but to say that "*First Contact* is one of those rare films that holds both an academic and a general audience spellbound" is an accurate characterization. The film is, in fact, a phenomenon, so far evoking comparably enthusiastic reactions from anthropologists, judges in international film competitions, and packed audiences in Australian and American commercial theaters.

First Contact concerns initial encounters between Papua New Guinea highlanders and Australian gold prospectors in the early 1930s. Part of its appeal undoubtedly lies in the remarkable content and excellent quality of the original black-and-white footage taken by Michael, Dan, and James Leahy as they sought gold in the hitherto-uncharted central highlands of what was then the Territory of New Guinea. We are fortunate that European exploration of this "last unknown" postdated the development of portable motion picture cameras, and even more so that the Leahys documented, through film and diaries, their "first contacts" with numerous populations of the Chimbu and Wahgi Valleys. The "home movies" they took have now been restored after 50 years of storage in a suitcase and edited to create an invaluable and unique record of extraordinary events.

The husband and wife team of Connolly and Anderson have done a sensitive job of producing and directing the resulting film, intercutting the Leahys' footage with recent interviews involving many of the original participants, including two surviving Leahy brothers and a large number of Papua New Guineans. Memories are vivid and experiences are recounted in fascinating detail as the Leahys tell of dreams of wealth that lured them into the then-unknown mountains, men recall trembling in fear but also the excitement of pitched battles as the mortality of the visitors became known, and women muse over old photographs as they render their accounts of the discovery of the white mens' human natures, revealed when kinsmen exchanged their sexual favors for pearlshells. The viewer is captivated as the story unfolds: initial awe and bafflement at the appearance of these white "spirits" who seemed to come out of nowhere; intense curiosity about their bodies and bodily functions; realization that these, too, were men; and sheer astonishment as airplanes land, a gramophone is played, food appears magically from tin cans, and the incredible power of a rifle is demonstrated on a local pig (as it later would be, occasionally, on attacking warriors). The facial expressions in reaction to such wonders are unforgettable and tell much of the story, with the interviews and recollections skillfully edited (by Stewart Young and Martyn Down) to provide a sense of the events as they were perceived from both highlanders' and prospectors' perspectives.

Not all of the story is told, of course, and nonspecialists may feel a need for more orienting maps and other background information to place the Leahys' expeditions in cultural and historical context. Yet for some purposes, at least, such details may not be necessary, since there is a placeless and timeless quality about some of the questions and issues raised by the film. Orson Welles, only five years after the Leahys entered the Waghi Valley, threw a relatively sophisticated American audience into panic with his radio broadcast of a fictional invasion of earth from outer space. The Papua New Guineans shown in this film, like countless other peoples who were faced with the worldwide extension of European colonial empires, were confronted with a reality no less awesome or potentially threatening than a "War of the Worlds." What we see in *First Contact,* however, is not uncomprehending frenzy but attempts by highlanders to integrate such experiences into their local cosmologies and to sort out their immediate implications. While "first contact" was unquestionably accompanied by fear and occasional violence, what is missing from the testimonies in this film is any sense of true hostility, rancor, or bitterness, either then or now. Instead, the mood is one of mutual fascination and adaptation, as in the final scenes of contemporary villagers viewing the Leahy films, with older people telling those younger, "That's how we used to be," and "Things weren't clear then." These statements clearly do not come from resentful victims, but from people whose resourcefulness has served them well in moving from wonderment over a biscuit tin to control of their own independent modern nation within a single lifetime.

Classes in introductory anthropology, culture

change, and Oceania will be stimulated and deeply moved by this film, the impact of which is overwhelming, if not strictly comparable to that of the original events themselves.

Jane Goodall: Studies of the Chimpanzee. Five films produced by the *National Geographic Society. Introduction to Chimpanzee Behavior* (1977), *Hierarchy and the Alpha Male* (1977), *Feeding and Food Sharing* (1976), *Tool Using* (1976), *Infant Development* (1976). 23 minutes each, color. Purchase $345 (16mm) each, $315 (video) each from National Geographic Society, Educational Services, Department 83, Washington, D.C. 20036 (301/921-1330); rental $30 each from Karol Media, 625 From Rd., Paramus, N.J. 07652 (201/262-4170).

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These films have been pieced together by the National Geographic Society from its vast archive of Hugo van Lawick's footage taken in the late 1960s. Each begins with several minutes of introductory material describing Gombe National Park, Tanzania, and Goodall's long-term study there, so that each production can stand on its own. As anyone who has seen a Goodall-Geographic television special would expect, the photography is excellent. With the exception of *Introduction,* relatively little time is spent depicting how the study started. All the films are narrated, for the most part by Goodall herself.

Each film is accompanied by a teacher's guide, which provides background material on the Gombe study, summarizes the main points of the film, and suggests activities students might undertake. Some of the suggestions are sensible, such as running the film without the sound, so that students can practice interpreting behavior without being influenced by the sound track. Others are less sensible, such as taping students' thumbs to their hands so that they can experience directly the value of an opposable thumb.

As far as their content is concerned, these films will be of greatest value to high school and introductory college classes; for advanced college courses in primatology, however, the narrative is overly simplistic and sometimes dated. Nevertheless, for those who have had to use the lengthy and highly specialized Rockefeller University film, *Vocalizations of Wild Chimpanzees,* to show students chimpanzees actually behaving, these films will provide a welcome alternative. Much of the same footage is included here, and it is presented in more manageable packages without the cumbersome interruptions of written titles.

Teachers will find some of these films more useful than others, depending on the subject matter they are trying to cover. *Introduction* has the greatest general applicability, while both *Feeding and Food Sharing* and *Tool Using* are so specialized that their greatest value is as part of a showing of all five films. *Infant Development* concentrates on the Flo family, contrasting the development of Flint and Fifi's infant Freud with Melissa's infant Goblin, and is a useful film to show to classes studying primate socialization.

Finally, *Hierarchy and the Alpha Male* contains some of the most exciting shots, yet at the same time some of the most dated material in this series. Filmed mainly in the banana-feeding area of the Gombe camp, it might be better titled *Aggressive Behavior and the Alpha Male,* for the existence of a hierarchy, in the sense of a ranked order of individuals, is never demonstrated. Although the narrative for this and several of the other films states that "each one knows his place," the evidence for this assertion is not convincing. More recent information (David Bygott's article in Hamburg and McCown's *The Great Apes,* 1979) indicates instead that within each group of Gombe chimpanzees agonistic interactions are seldom seen and it is difficult to rank individuals. Bygott agrees that there is usually a male who can be identified as alpha, but below that level males can only be considered as generally high, middle, or low-ranking. Male status, in fact, has a U-shaped relationship with age. In other words, aggressive behavior exists, status differences exist, but a clear-cut dominance hierarchy apparently does not.

Otherwise, the fact that these films were shot at least 15 years ago does not affect their value as instructional aids, used either to introduce students to the subject or to show them how chimpanzees behave in the wild.

Colchester, M. 2004: *First Contact in Papua New Guinea: A clash of world views*, Bulletin World Rainforest Movement 87, 28-31.

First Contact in Papua New Guinea: A clash of world views

When Australians took control, at the end of the first world war, of the German colony of New Guinea, under a mandate from the League of Nations to protect the native peoples, it was thought that New Guinea had only a sparse population, mostly along the coast. The mountainous interior, it was believed, was a virtually empty and impenetrable jumble of rain-soaked hills. However, it is now clear that the highland valleys of New Guinea have long been among the most densely settled agricultural areas in the world.

The highland valleys of Papua New Guinea were first contacted by Australians in the 1930s and were found to be inhabited by over a million people, made up of several hundred different ethnic groups, who had been growing their vegetable staples and raising their pigs in the fertile upland soils for over nine thousand years. Although these peoples traded, through many intermediaries, with the coast, the highlanders were equally unaware of what lay beyond their territories. As highlander Gerigl Gande recalled in the 1980s: 'we only knew the people who lived immediately around us. For example the Naugla, they were our enemies and we couldn't go past them. So we knew nothing of what was beyond. We thought no one existed apart from ourselves and our enemies.' The mutual astonishment and incomprehension of these two cultures, when they first met, was almost complete.

Australian officials and miners only became aware of these populated highlands in 1930, when the adventurer, Michael Leahy, first marched up into the hills from the east coast, in search of gold. The Mandated Territory was viewed by Australians as a business proposition, the local men were referred to as 'boys' and the isolated groups in the interior pejoratively called 'bush kanakas' in pidgin. The indigenous peoples were widely considered treacherous, bloodthirsty savages, remnants of an inferior race doomed to extinction. As one settler noted 'the natives of this Territory are mean-souled, thieving rotters, and education only gives them added cunning'.

The miners pushed deep into the interior, travelling light and living off the land. They demanded food from the native people, paid for with metal tools and prized sea-shells, to keep their expeditions on the move. In their haste to get to the goldfield they dreamed of, they sparked confusion and conflicts. When warriors barred their path with arrows and threats, rather than return to the coast, the miners used guns to deadly effect to blast a path through to their goals. Sure that their technological superiority was, equally, evidence of their moral supremacy, it never occurred to the miners that what they were doing was wrong, much less that the local people might have their own reasons and interests for choosing to develop their interactions differently.

The gulf of incomprehension was wide on both sides. Trying to make sense of these strangely apparelled, pale skinned visitors, the highlanders, for the large part, assumed that they were ancestral spirits, either returning lost relatives coming from the east where the dead were thought to dwell or else ambiguous, even evil, mythic beings from the heavens. Recalls Gopu Ataiamelahu of Gama Village near Goroka: 'I asked myself, who are these people? They must be somebody from the heavens. Have they come to kill us or what? We wondered if this could be the end of us and it gave us a feeling of sorrow. We said, "we must not touch them". We were terribly frightened'. Remembers another: 'They smelt so differently, these strange

people. We thought it would kill us, so we covered our noses with the leaves from a special bush that grows near cucumbers. It had a particularly nice smell and it covered up theirs'.

Once it became widely known that the strange beings carried untold wealth with them, many communities wanted their visitors to stay with them and not carry on through to the lands of their rivals and enemies. Misunderstandings were almost inevitable. A typical conflict occurred in 1933, as the miners accompanied by a colonial officer, tried to push through to Mount Hagen. Ndika Nikints recalls the situation.

"The Yamka and Kuklika and all the people around us were making a lot of noise, shouting and calling out war cries. They were saying they wanted to take everything from the white men. Some people snatched things from the carriers, like tins and trade goods. Then Kiap Taylor [the colonial officer] broke this thing he was carrying and before we knew anything we heard it crack. Everything happened at once. Everyone was pissing and shitting themselves in terror. Mother! Father! I was horrified. I wanted to run away… the muskets got the people – their stomachs came out, their heads came off. Three men were killed and one was wounded… I said 'Oh, Mother!' but that didn't help. I breathed deeply, but that didn't help. I was really desperate. Why did I come here? I should never have come. We thought it was lightning that was eating people up. What was this strange thing, something that had come down from the sky to eat us up? What's happening? What's happening?"

This pattern of mutual incomprehension leading to violence and terror was to be repeated over and over again whenever the colonial officers and miners felt obliged to push through previously uncontacted areas to reach their self-ordained objectives. Another well-documented case comes from later in the 1930s when a colonial patrol, aimed at making a reconnaissance up the Strickland River and through the highlands north of Lake Kutubu, pushed through the lands of six different and previously uncontacted peoples. Carrying only enough supplies for one month's travel, for a journey that in the end took them more than five, they were soon obliged to trade with the local communities, who sought to avoid all contact with the strangers.

Coming first into the lands of the Etoro people, the patrol emerged suddenly from the forests into full view of one community. 'We jumped with surprise' recounts one elder 'No one had seen anything like this before or knew what it was. When we saw the clothes of the strangers, we thought they were like people you see in a dream: "these must be spirit people coming openly, in plain sight" '. When these spirits approached them, the Etoro were even more dismayed and the more insistent the spirits were in offering gifts the more alarmed the Etoro became. The Etoro were convinced that if they accepted any gifts they would then be obligated to the unknown world of the spirits, thus bringing together two realms that should remain separate, lest the world become unmade and everybody die. Shortly after, in a confused encounter, one of the Etoro was shot and killed, confirming the Etoro in their view about who these beings were.

Further along the trail that they followed, the patrol came upon taboo signs, clear indications that the local people did not want the strangers to pass. The patrol pushed on regardless and, coming upon an old woman, pressed her with gifts of beads. When she returned to her own people, who were hiding in the forest, and showed them the gifts they were thrown into even greater dismay, imagining that the whole world would collapse to its origin point if the world of humans and spirits was not kept apart. Their consternation was even greater when they returned to their huts and found gifts of cloth, axes and machetes hanging from the rafters.

Unsure what might happen if they touched them they were left hanging there. ‘What are these things? Why don’t you take them down?’ asked a visitor from a nearly village. ‘We are afraid. Who knows where these things are from. Perhaps they are from the Origin Time’.

The further on the patrol went the more often it had to resort to violence to secure food. In one encounter with the Wola, the patrol found itself in a narrow defile and fighting broke out after further miscommunication and cultural incomprehension. The devastating rifle fire and close quarter shooting with service revolvers killed and wounded over fourteen Wola. Recalls Leda: ‘They shot my cross-cousin Huruwumb, and I went to see him. You could see his liver exposed. They kept sending me to fetch water for him to drink because he was thirsty. Back and forth, I kept going to fetch water for him. He lived in agony for three days. On the fourth day he died.’ One of the Wola women, Tensgay, remembers other gruesome wounds:

“Kal Aenknais had his thighs and lower torso smashed. Completely pulverised here and here. He kept groaning ‘Oh! Ah!’. I saw him. He died later. Wounded in the guts he was. His intestines were punctured. When he was given water to drink, to cool him off, it came spurting out of the holes in his body. Then there was Obil. His eyes were blown clean out of his head. When they landed on the path they wriggled around and around for ages. He died too. And then there was that poor blighter – aah – whose entrails were shot out. His intestines and stomach were blasted right out of his body…”

After the massacre, the white officers sent the coastal police men to get food from the village. Coming on the village hut they found the women and children cowering inside. Tengsay recalls the scene:

“We were terrified… They tore open the door of our house and demanded everything. Puliym’s mother released the pigs one at a time and drove them out of the door to them waiting outside…They tore off the front of the house, attacked it with axes and bushknives… They took the pigs one at a time and shot them outside. After they killed them they singed off the bristles over a fire made from the wood torn from our house. Then they butchered them ready to carry off… After they had killed and prepared the pigs they turned on us. We didn’t see well what was going on. We were cowering inside. They returned and stood there [about three metres away] and fired their guns into the house. They shot Hiyt Ibiziym, Bat Maemuw, my sister, Ndin, Maeniy and me. That’s six of us… We were so frightened that we were all dizzy and faint… We slumped in a sort of stupefied state. Who was there to bandage our wounds with moss and levaes?… we just slumped indoors. We didn’t think anything. All we felt was terror and dizziness. I was sort of senseless… Well, they didn’t rape any women. That was done by later patrols, when they not only stole our pigs but our women too, and broke into our houses and smashed up our possessions, like our bows and things. They even excreted in our fireplaces”.

The task of the colonial authorities in the Mandated Territory of New Guinea, as commanded by the League of Nations, was to protect the native peoples. Accordingly, the highlands were declared a ‘controlled area’ into which access was only allowed to those with permits. There were strict regulations, on paper, about what those with permits could do if they entered the controlled area. They must not enter native villages; not allow their carriers (coastal porters) to trade with the local people without supervision; and ensure that all campsites were provided with pit latrines to avoid contamination of local waters. Arms were only to be used as a last resort, in self defense. However, not only did the colonial power lack the resources and manpower to control access effectively, they also wanted to encourage economic

development in the interior. Permits to enter the ‘controlled areas’ were thus issued to miners, and the local officials were themselves in two minds about the appropriateness of the regulations.

Many of the colonials were, however, clear in their minds that, if there was to be ‘development’, the way of life of the native people would have to change. As one editorial in the “Rabaul Times” on 25 September 1936 noted:

“One of the greatest contributing factors to the unsatisfactory services rendered by native labourers in this country is their economic independence. For it must not be forgotten that every native is a landed proprietor, and nature has endowed New Guinea with a prolific soil, which provides adequate sustenance for a minimum of labour. Dismissal from employment, if he fails to carry out his duties, holds no terrors for the New Guinean native. It is the shadow of the sack, hovering over the white employee, which urges him to render service. Unless and until our natives reach such a stage of development that they must work to obtain sustenance or a livelihood, they will never make suitable indentured labour for the average white resident”.

From this point of view, the enforced contacts and integration of the highlanders into the modern world, were necessary steps to achieve a kind of ‘development’. A certain amount of bloodshed could then be justified as an inevitable part of the process of social change. Perhaps, if those in the outside world hadn’t been in such a hurry and could better appreciate that people in other worlds have different priorities and beliefs, things might have been different.

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