

# Warfare, Social Organisation and Resource Access Amongst the Wosera Abelam of Papua New Guinea

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## ABSTRACT

In the precolonial period warfare was endemic amongst the Wosera Abelam and social organisation was sufficiently flexible to permit the movement of people between villages and groups, and their full incorporation into their host societies. In the contemporary context of increasing population pressure, and in the absence of warfare, a significant response is a general tightening of the rules governing group membership and resource access. This response, it is argued, may represent a shift from a patrilineal system of social organisation to one based on patrilineal-like principles, resulting in a legacy of marginalised immigrant lineages of three generations or less of village residence.

## INTRODUCTION

The question of inherited inequalities in Papua New Guinea has generated a large literature centered on the appropriateness of unilineal descent models to describe PNG societies (eg, Barnes 1962; 1967; McArthur 1967; Healey 1979). The essence of the discussion is that if unilineal descent systems apply, then possibilities for inherited inequalities exist because nonagnatic individuals (immigrants) do not have birth rights to the resources of the social group in which they reside. But if societies have a high proportion of resident nonagnates then descent as a rule of recruitment to social groups cannot be said to be important. Whilst there have been many attempts to assess the importance of descent *vis-a-vis* other models of recruitment, most interpretations have tended to present static models of social organisation that provide little insight into the contemporary processes shaping patterns of social organisation.

The present paper argues that Wosera social organisation was flexible in the pre-contact period and appears to have conformed with Barnes' (1967) notion of patrilineality. However, in the contemporary context of increasing population pressure in the absence of warfare, group boundaries are closing such that a patrilineal system of social organisation with greater emphasis on descent is beginning to emerge. Concomitant with the emergence of patrilineal principles, Wosera society is becoming stratified as descent as a rule of recruitment assumes greater importance in determining group membership and access to resources.

### The Literature

While an ideology of patrilineality is present in many PNG societies, social organisation is often flexible with considerable deviation from patrilineal principles. For example, in an Engan clan, which Meggitt (1965) described as strongly patrilineal, McArthur (1967) calculated from Meggitt's 1958 data that only 63% of married and widowed men were living in the same clan as their paternal grandfather (cited in Barnes 1967:36). Whilst patrilineality

may be stressed as an ideal, deviation from this ideal has led some writers to propose alternative factors in group formation. Barnes, in questioning Meggitt's data, suggested that Engan society would be better described in terms of patrification, meaning that men inherit land rights 'legally from their fathers, [and] not because of any relation with a more distant forebear.' (1967:40; see also Barnes 1962:6; and Forge 1972A:532). Some writers have pointed to other, inter-related, factors that appear to form the basis of group solidarity and definition: shared territory and co-residence (Barnes 1967:40; Langness 1964:172; de Lepervanche 1967-8:140, 143, 145, 172; Healey 1979:115; Mandeville 1979:106); shared 'substance'/food (Lowman-Vayda 1971:322; Healey 1979:115; Lederman 1986:34); and, cooperation in exchange (Reay 1959A; 1959B; Glasse 1968:78; Forge 1972A:528; Healey 1979:109, 114; Sillitoe 1979:83-85; McDowell 1980:59). That is, co-residence, commitment, and cooperation with members of a host group facilitates assimilation of nonagnates into groups and promotes group cohesiveness (see Mandeville 1979:112). But whether these factors are sufficient to overcome systematic inequalities arising from the ideal of patrilineality in some societies, remains open to question.

Several studies have addressed the issue of whether systematic inequalities exist between people claiming a birthright in their group (eg, agnates in a patrilineal group) and members recruited from outside the group (nonagnates such as immigrants). Some have reported that nonagnates are less well-off than agnatic members of their host group (see below). Explanations fall into two categories: those attributed to a decline in cooperation between an immigrant male and his natal agnates, and those that argue the existence of active discrimination against immigrants by their hosts. Because nonagnates are often separated spatially from their natal social group, they interact less with their true agnates and are less able to draw upon the resources of the latter for help in the indigenous exchange economy (eg, raising brideprices and servicing affinal exchange obligations) (see Ryan 1961:29-30, 303; Healey 1979:116). As Healey commented, '...the amount of co-operation in exchanges is a function of both genealogical and geographic propinquity.' (1979:106). Thus, it is argued, the ability of nonagnates to participate in exchange networks at the same level as their hosts is curtailed.

Economic discrimination against immigrants by their hosts is most well known from the work of Meggitt (1965; 1967; 1971) among the highlands Enga. Meggitt argued that the most clearly defined agnatic descent systems with the most rigid patterns of residence are to be found in the most densely populated highland societies (Meggitt 1965; see also Waddell 1973 who proposed a slightly different mechanism<sup>1</sup>). Meggitt (1971:195) compared the densely populated central Enga (up to 350-400 per sq. mile) with the more sparsely populated fringe Enga groups, and argued that the former place more emphasis on patrilineality and patrilocality than the latter. Although Meggitt's stress on patrilineal descent systems has been questioned (eg, Barnes 1967; McArthur 1967), he provided some strong evidence to support his claim that nonagnates suffer economic discrimination. Meggitt claimed that in Engan clan groups, agnates are wealthier (more pigs and greater participation in exchange), have more wives and work less hard than nonagnatic residents (1965:40-43). Also, because agnates can demonstrate putative agnation, they are able to restrict the access of nonagnates to wealth and authority. The key to their power is their control over land tenure. By withholding security of land tenure, agnates are able to thwart the long-term plans and political ambitions of nonagnates. Discrimination against nonagnates is justified by stressing the ideals of clan identity and cohesion. However, discrimination varies, and depends on the perceived level of danger of an enemy attack: '... if the clan is threatened by attacks from outside, they relax these restrictions [discrimination] and offer more privileges ... when the danger passes, the terms of recruitment to the parish group return to normal.' (Meggitt 1965:44; see also Meggitt 1977:25).

Meggitt's work makes for interesting comparisons with that of Reay (1959A; 1959B; 1971) who worked among the Kuma of the Western Highlands Province. In Reay's earlier papers (1959A; 1959B), she drew attention to the relative abundance of land and said that conquest of land was unknown: 'what needed to be defended ... [was] the agnatic descent

group itself ...' (1971:184). This is in direct contrast to the central Enga where, because of high population densities, inter-group disputes over land were, until recently, the main cause of warfare (Meggitt 1971:195). Although clan strength among the Kuma was a critical factor in warfare, clans 'fought, not over land, but over women as the potential mothers of agnates yet unborn.' (Reay 1971:185). Yet, in her later study the situation was beginning to change following pacification and the introduction of cash cropping.

Previously, ridges and hills were the preferred settlement sites of the Kuma. The lower lying Wahgi flats were undesirable because of malaria and their vulnerability to enemy attack (Reay 1971:184). With the introduction of cash cropping the flats became highly valued because of their suitability for coffee. As a direct consequence of a functional land shortage for coffee one subclan 'had plainly acquired an Enga-like exclusiveness and, far from trying to attract new non-agnates to join its ranks, was even pruning itself of birth members who were known to be only quasi-agnates.' (Reay 1971:187). Traditional values regarding the importance of recruitment of outsiders for defence purposes are adjusting to the new conditions. As functional land shortages emerge (for growing cash crops), and the need to maintain group strength lessens (warfare declined), the Kuma are becoming more selective in granting rights of tenure. They are responding to the perceived land shortage in ways similar to the more densely settled Enga. Jural rights to subclan membership (hence land tenure) are becoming increasingly dependent on agnatic descent, to the extent that evictions of nonagnates are beginning to occur.

This paper argues that a similar process is now occurring amongst the Abelam of the Wosera sub-district, East Sepik Province, Papua New Guinea. In the pre-contact period Wosera society was characterised by a flexible system of social organisation with a high degree of population movement between territories and social groupings (eg, Lea 1964:51; Forge 1990:167). Warfare, land disputes/shortages, sorcery and the need for balanced ritual exchange groupings have been implicated as probable explanations for Wosera social and spatial mobility (Kaberry 1971; Gorlin 1973), as indeed they have in other parts of Papua New Guinea (eg, Langness 1964; de Lepervanche 1967/68; Waddell 1973; Mandeville 1979; Chapman and Prothero 1985; Watson 1983; 1985; Brison 1994). With pacification and improvements in health status, population pressure is continuing to build, such that a previously fluid system of social organisation is now solidifying, leading to the emergence of a stratified society that was previously described as 'aggressively egalitarian' (Forge 1970:270). Agnatic descent is assuming greater importance as a determinant of group membership and hence access to resources (Curry 1992; 1994; Koczberski and Curry 1996).

Whilst the Wosera have responded to population pressure in several ways (agricultural intensification, land dispute resolution through litigation, outmigration to distant locations — Curry 1992), reduced flexibility of social organisation is perhaps the most significant response with adverse socio-economic impacts on a large section of Wosera society. The purpose of the paper is, therefore, to show how Wosera society is becoming more stratified by examining the changing pattern of social organisation from the pre-contact period through to the present. Case study material drawn mainly from Miko 2 Village in the north-east of the sub-district is used to illustrate these arguments (Figure 1).

## STUDY AREA

The Wosera sub-district, an area of 800 sq. km is located southwest of Maprik (Figure 1), and its people belong to the cultural group known as the Abelam (see, Kaberry 1941A; 1941B; 1965–66; Forge 1970; 1971; 1990; Lea 1964; Lea *et al* 1988; Losche 1990; Scaglione 1976; 1990; Hauser-Schäublin 1990). Subsistence production is characterised by a bush fallow system of gardening and sago processing. Yams (*Dioscorea esculenta*) are cultivated in gardens and interplanted with taro (*Colocasia esculenta* and *Xanthosoma sagittifolium*), and a range of supplementary crops. Sago is the most important non-garden food

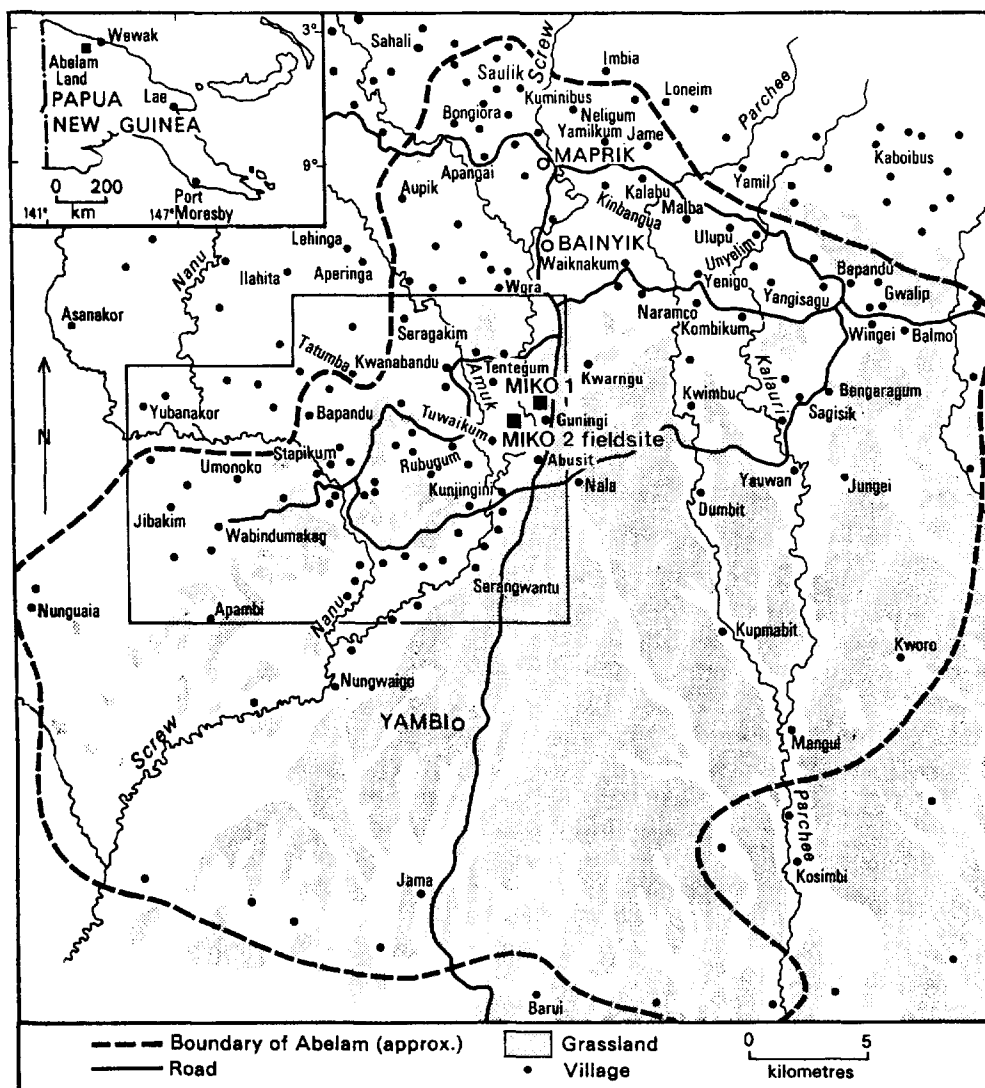


Figure 1  
Location of the study site.

and is the primary staple (supplemented with bananas) from January to June when yams are in short supply (Curry 1992:44–61). Relative to other areas of Papua New Guinea, the Wosera have very low incomes,<sup>3</sup> and poor nutrition (especially amongst mothers and young children), has been reported since the 1960s<sup>4</sup> (eg, Bailey 1963; Peters 1960; Schofield 1963; Ross 1984; Garner & Heywood 1987; Koczberski 1989; Shack *et al* 1990). The area is also one of the nation's most densely settled rural lowland areas with densities ranging from 60 to 200 people per sq. km (Lea *et al* 1988; Curry 1992). The colonial and postcolonial administrations have long been concerned that Wosera subsistence systems were under stress and in the long term would be unsustainable under high population growth rates (Lea 1964; for a summary see Curry 1992:136). Fortunately, high rates of outmigration have ameliorated some of the impact of population growth.

### **Social organisation and resource access**

Within Wosera society, the levels of social organisation in order of decreasing size and increasing within-group solidarity are: confederacy, village, clan, subclan, patrilineage, and family (Gorlin 1973). The term 'patrilineage' is not strictly correct in the sense that recruitment was strictly by birth. Whilst recruitment in the precolonial period was patrilineal in practice, an ideology of descent was present nevertheless, with putative patrilineages holding exclusive rights to sago groves and economic trees and palms (see below). Therefore, the term 'lineage' is used here in a broad sense to reflect an ideology of descent and the fact that, since the precolonial period, these putative lineages have held exclusive rights to some resources.

The basic land holding unit is the subclan, each with its own parcels of garden land. Lineages have rights to cultivate garden land belonging to their subclan. Non-subclan members are permitted to cultivate gardens, but these temporary alienations of land do not violate the subclan's acknowledged and continued ownership of the land. However, loans of land for more permanent land uses such as sago and perennial cash crops are much more carefully controlled; these latter uses alienate land permanently from the land-holding subclan and give *de facto* ownership to the borrowing individual or lineage. Whilst most land is held in common by the subclan, some land and resources, such as sago and coffee plantings, are held by individual lineages (Curry 1994). Members of these unnamed lineages with access rights commonly include a man and his married sons, sometimes extending to his brothers and their married sons. Each generation sago holdings are subdivided between sons so that holdings are becoming smaller and more fragmented. The subdivision of coffee blocks amongst sons is a recent innovation (within the last 15 years) and may be indicative of a functional shortage of land. Other economic trees or palms such as coconut and betel nut palms, tulip (*Gnetum gnemon*), and breadfruit are owned individually and inherited by individual sons and occasionally, daughters.

The basic economic unit is the family, but the distinction between the family and the lineage as a unit of production, consumption and exchange is indistinct. The family provides much of the routine labour inputs to garden production such as garden maintenance and the planting and harvesting of subsidiary crops. For heavier subsistence tasks such as the cutting, clearing and fencing of new gardens, the planting, harvesting and carrying of yams, cutting and processing sago palms and house building, the lineage and often other members of the subclan, amongst other classes of kin, may contribute labour. The tasks for which labour is recruited from the lineage and subclan tend to be labour intensive and predominantly male work, with the exception of sago processing which is a female task (Koczberski 1989).<sup>5</sup>

### **PRE-CONTACT LAND PRESSURE**

This section begins by outlining the possible origins and early movements of the Wosera Abelam to identify the likely pressures that gave rise to warfare. The intensity of warfare, together with its ramifications for social organisation is then discussed. Towards the end of this section, recruitment principles are described both at the macro-level of clans and villages, and at the micro-level of individual subclans and lineages. It is suggested that at both levels, patrilineal principles of flexible recruitment were necessary in the precolonial Wosera environment to accommodate the demographic vagaries associated with endemic warfare and high rates of illness-related mortality.

### **Origins of the Wosera Abelam**

Ecological evidence points to a northward movement of the Abelam from the Sepik River Plains approximately 2,000 years bp, which may have been stimulated by environmental changes induced by the eastward retreat of the prehistoric shoreline (Haantjens *et al* 1965; Swadling *et al* 1988; McGuigan 1992:19; see Roscoe 1994 for a recent review of prehistoric

migrations in the Sepik Basin). As the Abelam migrated northward the original forest, which covered the plains and slopes to the north, was quickly converted to grassland (Haantjens *et al* 1965).<sup>6</sup> The relatively poor soils of the plain coupled with a marked dry season and annual burnoffs of regrowth led to a rapid loss of soil fertility which prevented the regrowth of secondary forest. Thus the central northward push from the Sepik River of the Wosera Abelam was probably along the Amogu, Nanu and Amuk Rivers towards the Prince Alexander Mountains (Figure 1). For a people dependent on sago and yam cultivation these river courses with their fertile river terraces provided an ideal environment for their northward movement.

## Warfare

As they moved northward, the Abelam forced out the resident groups ahead of them, pushing the Mountain Arapesh over the mountains to the unfamiliar coastal fringe (Mead 1970). Just north of the Wosera, the Abelam pushed well into the mountains, and further east, the Boiken (the same language group), crossed over the mountains going as far as the off-shore islands of Tarawai and Walis (McGuigan 1992; see also Roscoe 1989<sup>7</sup>) (Figure 2). The densely packed Wosera were hemmed in on three sides. Their northward expansion was barred by the Arapesh and northern Abelam peoples in the foothills of the Prince Alexander Mountains, while swamps to the south and grasslands to the east prevented movement in these directions (Lea 1973:66).

Herein lies the probable explanation for the intense warfare that characterised the pre-colonial Wosera. Boxed in on three sides and experiencing intense population pressure, the Woseras responded by engaging in warfare with neighbouring groups as well as amongst themselves. The earliest ethnographic studies in the area reported endemic warfare amongst the Abelam (eg, Thurnwald 1914; Kaberry 1965/66 — fieldwork in 1939/40). For example, Thurnwald (1914) described the region as densely populated with ridge top villages fortified with stockaded living areas (cited in Lea 1964:45). The weathered remains of these defensive structures can still be seen today. Village and clan histories record not only a general northwards drift as forest was converted to grassland, but also many battles with rival groups (Gorlin 1973; McGuigan 1992).

At the time of contact in the 1930s, the Wosera were expanding their territory westwards into the less populated Kwanga areas, routing and exterminating villages in the process (Lea 1964:42, 45, 158; Forge 1965:24–25; Gorlin 1973; Tuzin 1976; Swadling 1990:84). The movement was not planned, but as Forge (1965:25) described: ‘... [was] the result of the jostling together of large fairly densely packed Abelam villages, fighting each other and gradually moving as a whole in a northerly and later westerly direction.’ In the most westerly part of the Wosera, Nungwaia Village for instance, was pushed westwards by Jibako to its present site replacing a Kwanga speaking group that Nungwaia claims to have exterminated (Lea 1964; Forge 1963:2; 1965; Swadling 1990). Such stories are common throughout the Wosera. Bapandu Village in central Wosera was routed from a site near Tuwaikum in the early 1930s (Lea 1964:159). Kwananbandu Village was located near Miko 2 but was routed by Miko and its allies in the 1920s when it re-located to its present site (Curry 1992; see Kaberry 1965/66 and 1971 for other examples).

Wosera warfare was much more intense than in the rest of the less densely inhabited Abelam areas (Forge 1963; Lea 1964; 1965A). Amongst the northern Abelam, war-making groups rarely exceeded two or three villages. In contrast, chains of temporary alliances between Wosera villages could amount to war groups in the order of 2000 people or more (Lea 1964:45; see also Forge 1963:3; 1972B; 1990; and Forge and Lea n.d.:7). For example, in one battle prior to the imposition of administrative control, Miko village segments (Miko 1, Miko 2, Tentegum) allied themselves with the villages of Abusit (a former enemy), Tuwaikum, Guiningi, Kunjingini, Waikamoko, Wora, Numakum, Apange and Kwimbu to make war with Kwarngu (Miko’s northern neighbour), the Waikakum villages and their allies.

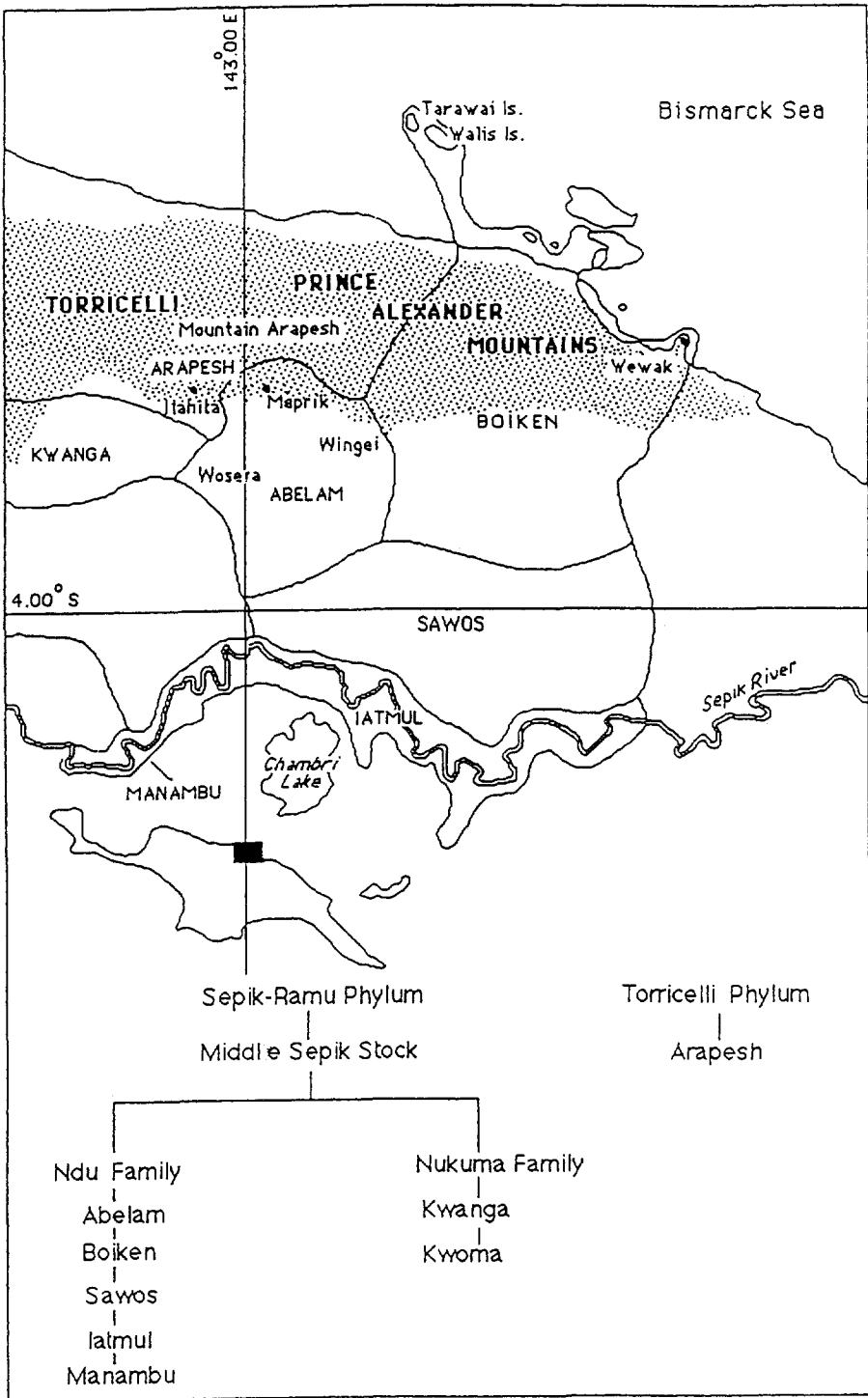


Figure 2  
Abelam and surrounding language groups (Source: McGuigan 1992:17).

Mortality rates from warfare among the Abelam were very high, especially amongst the more densely-settled Wosera Abelam. Both Lea (1964:158; 1965A:205) and Forge (1990) maintained that the intensity of warfare and the high casualty rates in the Wosera were probably sufficient to reduce the rate of population growth. For example, Forge (1990:168) estimated that 30% of deaths in the first ascendant generation of his older informants occurred in warfare or ambush. Whilst battles amongst the northern Abelam were called off after one or two men were killed, there appear to have been fewer restrictions on Wosera warfare. Lea's informants reported over 50 men killed in a single fight between the Wosera villages of Sarakum and Jambitanga. Today people can still recount the number of dead from battles waged between various villages. McGuigan (1992:29) reported meeting an older man from Saragum who produced a knotted length of bush rope and listed over forty people from his village killed when he was a youthful warrior.

Until the 1930s, when Australian administrative control was established, the demand for land helped create amongst the Abelam a 'culture of warfare' which pervaded most aspects of Abelam economic, social and cultural life.<sup>8</sup> Forge (1972A:536) went as far as to say that the pursuit of warfare was the most valued male activity. The development and training of young warriors was a priority for the Abelam and involved both physical training and ceremonial rituals to promote bravery in young warriors. Older men trained younger men in how to fight and kill during pig hunts and by killing unarmed refugees in the village (Forge 1990:168). Male initiation ceremonies amongst the Wosera were traditionally concerned with themes of warfare and yam fertility (McGuigan 1992:176–179). A number of the initiation rituals, especially those in which youth and young men in their twenties participated, focussed on the development of courage to face their enemies in warfare. Since pacification, large parts of these rituals have been dropped with, instead, increased emphasis on yam cultivation (McGuigan 1992). The pervasiveness of this 'culture of warfare' persisted until total Australian government control was established after the Second World War, and now, despite the absence of warfare, its legacy remains in the distrustful relationships between groups, in the ongoing disputes over land and in the continuing allegations of sorcery in the Wosera.

### **Flexible social organisation**

In this environment of endemic warfare, recruitment mechanisms were sufficiently flexible to respond to rapid and sudden fluctuations in people-land ratios resulting from fatalities, dis-possession, displacement and relocation. In addition, illness-related deaths, as distinct from war fatalities, were very high (see below), so that at the subclan level, recruitment of outsiders was sometimes necessary to maintain group strength and/or to fill 'vacancies' in the ritual and competitive exchange system. Refugees displaced by warfare moved to villages where they had kin or where they were invited to supplement group strength (Kaberry 1971:67). Today, villagers are able to identify the descendants of refugees within their own village, and many know of examples of people from distant villages residing in neighbouring villages. Groups decimated by warfare and ambush (or having their numbers diminished for other reasons — see below), were extremely vulnerable to attack (and sorcery) if not able to regain strength quickly by recruiting outsiders. Amongst the Abelam, Kaberry (1971:67) noted that refugees were welcomed as an addition to fighting strength (see also Kaberry 1965–66:366). Gorlin (1973:39–40) reported a case of a man increasing the strength of his clan group by recruiting a lineage from Kaugia who had been living there for at least 30 years as unassimilated refugees. At least two lineages in Miko were brought in specifically for their skills in warfare, though others may have been invited to supplement group strength. The founder of one of these lineages was encouraged to settle in Miko because of his valuable skills as a war magician and sorcerer. The second was granted a place in a Miko subclan because of his outstanding feats in battle while serving as an ally of Miko (Case 1). Some other lineages arrived as refugees and were allowed to settle (Curry 1992:168–176).



The role of warfare in group formation has long been recognised by highland ethnographers. Warfare and food shortages/famine are probable explanations for the 'loose' patrilineal social structures observed in many highland societies (see Langness 1964; de Lepervanche 1967–68; Wohlt 1978), and warfare has been identified as a major cause of the movement and migrations of peoples and their assimilation into other groups (Ryan 1961:229; Barnes 1962; Langness 1964:169, 173–7; Meggitt 1965; de Lepervanche 1967–8; Waddell 1973:40; Mandeville 1979:112; Watson 1983; 1985; Chapman and Prothero 1985). Recruits to some highland social groups were expected to contribute to the war effort of their hosts (Brookfield and Brown 1963:177; Mandeville 1979), and defence of a territory may have been the main stimulus for incorporating outsiders (Meggitt 1965:27, 217). Indeed, recruitment of outsiders has been documented for highlands groups which suffered decline from the effects of warfare (Brown 1960:29; Ryan 1961:36; Meggitt 1965:28; 1977:25). Mandeville maintained that '... perpetual warfare made villages anxious to recruit new members, and refugees and individual migrants were usually welcomed' (1979:112).

With regard to the Wosera there were additional reasons for recruiting outsiders. Unlike warfare which was concerned with the defence of large social groupings (eg, groups of villages, village and clan), illness-related mortality was of more concern to individual lineages and subclans. With an infant mortality rate of over 60% some lineages and subclans would have had difficulties in raising sons to marriageable age (see below). In these circumstances recruitment on patrilineal principles provided the necessary flexibility to maintain subclan and lineage strength. But the motivation to recruit was internal to the social unit rather than in the defence interests of the wider social group *per se*. Relatively small lineages were/are perceived to be less influential in village affairs and more vulnerable to sorcery and witchcraft. When numbers are low (eg, because of a run of deaths in the group in quick succession, or few males have been reared successfully to adulthood), the perceived risk of sorcery attack heightens as other groups see opportunities for eliminating the remaining members of the group and appropriating their resources. Thus the need to maintain the lineage as a viable unit is not expressed in terms of defence against physical attack as in warfare, but rather as a need to create a buffer and deterrent against assaults on the lineage through sorcery and witchcraft — often, it is believed, by members of the same subclan or clan.

Another reason for recruiting outsiders operates at the level of the individual and relates to Abelam spiritual beliefs. All men want a son to take their place when they die. The prospect of not having a son is abhorrent to men because without sons they cannot become part of the ancestral complex (*gwaleaba*) of the living. The spirits of the deceased are believed to watch over the gardens, sago groves and general well-being of real and adopted sons, with the relationship particularly strong between a man and his deceased paternal grandfather (*gwal* — reciprocal term). Throughout the year appeals and food offerings are made to the *gwaleaba* to enlist their support in the cultivation of yams, and to heighten their watchfulness over the living. Thus a man without sons, and unable to adopt a son or provide a daughter to an in-marrying male who agrees to settle with him, is pitied by relatives, because on his death he will not have a role in the affairs of the living. The land, gardens, and sago for which he has cared and nurtured, and in which he will dwell in the afterlife, will be occupied by strangers interacting ceremonially with their own ancestral complex — a most unpleasant concept for the Abelam.<sup>4</sup>

There were three ways to recruit outsiders of which only the first still operates in Miko, though the second may apply occasionally in the Wosera:

1. adoption of a young boy (*wyngwae*) or bachelor (*yu-oto*);
2. recruitment of young men through marriage to sisters and daughters (*kud-du-taundu*); and,
3. recruitment of related or unrelated refugees to fill a vacant place in the subclan.

In-marrying males and refugees invited to fill a place in the subclan, were sometimes granted agnatic status immediately, that is, they supplemented (or replaced) an agnatic group which had suffered a decline in numbers (or died out). One Miko subclan died out at some indeterminate time in the past (at least 6 generations ago), and was replaced by a group with a different bird totem (Curry 1992). The most common source of children for adoption is from agnates or sisters' children. If a man adopts his sister's child, agnatic groups with which he is affiliated increase in size.<sup>10</sup> For both *wyngwae* and *yu-oto* adoption to be formalised, the adopting father must take the place of the true father by being the chief financier of his adopted son's marriage. Formerly, in both *wyngwae* and *yu-oto* adoptions, males effectively became the 'sons' of their adopting fathers. They were accepted into their adopted lineages as full agnates with the attendant privileges that this status confers. As full agnates they were entitled to inherit their adopting father's agnatic rights to resources.

The evidence presented above reveals the precolonial Wosera to have had a very fluid system of social organisation with considerable movement of individuals between territories and groups. Earlier ethnographic studies cited above report this to be the case, with adoptions, in-marrying males and the acceptance of refugees being common practice. Flexible recruitment was essential not only at a macro level for warfare and defence of the village, but also at a micro level to accommodate the demographic fortunes (growth or decline) of individual village lineages arising from illness-related deaths and infertility. While earlier ethnographers labelled Wosera society patrilineal, the evidence suggests otherwise. Descent as the sole means of recruitment would have been unsustainable in the precolonial environment of endemic warfare and high illness-related mortality. The flexibility of social organisation was more akin to Barnes' (1967) concept of patrifiliation where men inherited the place of their father in the social group (and hence access to resources) rather than because of descent from some more distant forebear. Through patrifiliation nonagnatic individuals and groups were able to be assimilated as agnates with the associated rights to resources.

#### POST-CONTACT SITUATION

The socio-cultural environment changed dramatically in the colonial period: village boundaries were frozen in 1937, warfare was banned and relative improvements in health and a growing awareness of resource limitations have occurred. Together, these changes have had major impacts on population growth/land pressure, resulting in a substantially reduced need to recruit outsiders. An indication of the increasing pressure on resources can be obtained by examining changing mortality rates, population growth, the extent of out-migration to distant locations and the frequency of land disputes in the Wosera.

The available evidence indicates that precolonial mortality rates from illness must have been very high in the Maprik district. Before the advent of malarial control in the early 1960s, infant mortality rates in the Maprik area were estimated at 450–600 per 1,000 live births (Peters 1960; Schofield and Parkinson 1963; Forge 1970:268; 1990:160; Tyson 1987:152). Wosera mortality rates may have been even higher. For instance, in one of the earliest medical surveys undertaken in the Wosera, Schofield (1963 cited in Lea 1973:67) reported child mortality rates of 620 per 1,000 live births. Recent investigations in the sub-district report a mortality rate of 140 per 1,000, which, while still high relative to other areas of PNG, represents a considerable decline since the early 1960s (Heywood 1985; PNGIMR 1986; Garner and Heywood 1987). The significance of declining mortality rates is not only that population growth rates have increased, but also that fewer lineages are now dependent on the recruitment of outsiders (see below).

Over-population was a major concern of the Australian administration from the early 1960s. Reports of growing population pressure in the Wosera (eg, Redmond 1961; Corrigan 1963; Forge 1963; Forge and Lea n.d.; Bailey 1963; Schofield 1963; Lea 1964; 1965B; n.d.; Bureau of Statistics 1965; Whiteman 1965), prompted the administration to encourage migra-

tion from the Wosera. Many Wosera people were resettled in West New Britain Province and the Gavien, East Sepik (promoted again during the 1976 East Sepik Rural Development Programme). Despite these efforts, population densities remain high at up to 200 people per sq. km in some north Wosera villages (Lea *et al* 1988). Outmigration is estimated to have accounted for 9–11 years' worth (50–60%) of population growth over 18 years to 1979. Yet over the same period, availability of land in the greater part of North Wosera (one of the most land short areas) fell by 25% due to population increase (PNGIMR 1986:47).

Resource pressure is also reflected by the frequency of land disputes in the Wosera. Patrol reports of the 1950s and 1960s, reveal that patrol officers were often called upon to settle disputes over land and sago groves. In the early 1960s, Lea noted that the Wosera seemed to be obsessed with land disputes, much more so than in surrounding areas (1973:67). Writing of his fieldwork in the Wosera in 1961–1963, he states:

Despite unsuccessful litigation and imprisonment, the Woseras believe that if they put their case well and often enough they may ultimately get the land they genuinely need. ... Land disputes and complaints about shortages of land have become an obsession with the Woseras and have dominated their relationships with the Administration (and research workers) to the virtual exclusion of all other matters. (1965A:206)

The situation may be worsening. Rates of land and sago disputes in the Wosera doubled from 0.98 per 1, 000 population per year in the early 1960s (0.06 for the rest of the Maprik district), to 1.95 per 1, 000 population per year between 1978 and 1983 (Ross 1984:10). Land disputes continue to be a focus of discontent. For example, in 1989/90 Miko 1 and 2 were embroiled in a land dispute with their northern neighbour Kwarngu, the latter village instigating this most recent round of legal action. This dispute is the latest in a series over the same area of land which had been 'settled' previously by the courts. Villagers pointed to two earlier land boundaries that had been established by the courts. Each time the 'losing' side has brought the dispute back before the courts.

Reduced opportunities for population movement within the Wosera provides further evidence of increased resource pressure. For instance, there has been only one incident of an immigrant male arriving in Miko 2 since the late 1950s/early 1960s. It is also pertinent that only one male emigrant from Miko has settled elsewhere in the Wosera within the last 30 years. Other emigrants, who may have left permanently (six males), have all gone further afield to the provincial capitals or the islands. Clearly, the spatial and social mobility that characterised precolonial Wosera society is no longer significant.

### **Social organisation, affinal exchange and resource access**

One significant way in which the Wosera have responded to growing population pressure is by adopting a more patrilineal-like system of social organisation resulting in a tightening of the rules governing group membership and resource access. Agnatic exclusiveness is increasingly being enforced by using lineage rhetoric so that 'core' lineages demonstrating putative descent from a subclan founder are able to legitimise their exclusive control over subclan resources. Immigrants of three generations or less of village residence are reminded of their immigrant (nonagnatic) status and are increasingly being identified as immigrant lineages. Moreover, because of the increased emphasis on descent for membership of 'core' lineages, the descendants of men previously incorporated through adoption are having their agnatic status challenged to the extent that they are becoming dependent on affinal exchange relationships for access to resources.

Through affinal exchange (*jangi* exchange) resource-poor immigrants can obtain ongoing access to land and sago from wife-givers (WGs).<sup>11</sup> This exchange relationship is asym-

metrical and provides WGs with certain advantages, including a steady flow of wealth and/or labour in return for granting temporary access to land and other resources. When access to garden land or a sago palm is granted by WGs to wife-takers (WTs), the transaction constitutes a gift defined by that particular kinship relationship, and must be reciprocated with return flows of wealth and/or labour. Formerly, wealth items included shell rings<sup>12</sup> (*yua*) and net bags (*wut*). Nowadays, cash is also defined as an exchange valuable and is commonly used to meet these indigenously defined exchange obligations (Curry 1992; 1994; Koczberski and Curry 1996). On-going resource access is unidirectional from WGs to WTs. Sustained access to strategic resources through WTs is culturally unacceptable. Therefore, families with insufficient holdings of sago or circumscribed rights to gardening land, become dependent on WGs for ongoing access to resources, and such dependence is within the context of this culturally-prescribed unequal exchange relationship.

The case studies below illustrate how the process of incorporation and assimilation has slowed, ceased, or, as in some documented instances, even reversed. Immigrants that previously had been accepted as agnates through the *yu-oto* adoption principle, are having their agnatic rights challenged by their adopted agnates (Cases 2 and 3). Others, invited to settle in the village and given agnatic status, now find these rights tightly circumscribed such that they are restricted in planting perennial cash crops and sometimes denied access to land for food gardens (Case 1). The need for access to the means of production is forcing many immigrants into exchange relationships with WGs, accentuating the economic dimension to this indigenous exchange relationship (Cases 2, 3, 5 and 6). As WTs, the ability of immigrants to accumulate wealth to finance their sons' marriages is constrained (Cases 2, 5 and 6), because of the *jangi* demands on them for labour and wealth, which also entails a claim on a larger share of the brideprices of immigrants' daughters (Cases 2 and 6). Also, because immigrants have been residing for up to three generations in their host village, they are unlikely to be able to re-activate agnatic rights in their natal villages (Case 4), though some claim they may attempt to do so in the future (Cases 1 and 2).

*Case 1: The recruitment of a warrior.*

Wamaki is the most senior member of his lineage. He is about 55-years-old and has seven sons (two married) and four daughters (three married, and all out of the village). His father was from a village to the south and came to assist Miko (specifically his WBs) in a battle with Kwananbandu. Wamaki's father played a prominent role in the battle and for his outstanding efforts and bravery was invited to settle in Miko 2.

Wamaki's father settled with his WBs in subclan C and was given a sago grove in Miko 2 by Namdai, his classificatory MB, a resident of Miko 1. The sago grove was received as *jangi*, and payments of shell rings and other wealth items to Namdai were commenced by Wamaki's father. Following the deaths of his father and Namdai, Wamaki continued payments to Namdai's son, and recently Wamaki's sons began payments (from FZSSS to FFMBS).<sup>13</sup> Wamaki's sons say that payments will finish this generation, probably with a contribution towards the mortuary payments on the death of Namdai's son. The most recent payment was just after the marriage of one of Wamaki's daughters in 1989, when Wamaki's sons paid a shell ring and string bag to Namdai's son. The payment reinforces their rights of access to the sago, and with each payment, FFMBSs' claim to the sago grove lessens, while that of Wamaki's sons strengthens. Wamaki said that if Namdai's son repossessed the sago (either by refunding the wealth already paid or 'winning' it back in a court case), his lineage would return to his father's natal village. It is highly improbable that Wamaki would be able to re-activate the agnatic birth rights of his father, because the lineages holding those resources today would be very reluctant to relinquish resources by recognising Wamaki's claim — at least 60 years have elapsed since Wamaki's father lived there.

When Wamaki married he was offered a place in subclan B by Jandu, a bigman in that subclan. He was granted agnatic status within the subclan with inheritable and inalienable rights to land for gardens and cash crops. Jandu's grandsons said that he was given this position because Jandu's subclan was short of men at the time and they 'needed his support'. Jandu, in reference to Wamaki, used the agnatic kinship term *nyan* (son), and his grandsons now call Wamaki *apa waige* (father's younger brother). Wamaki moved to Jandu's hamlet and began to cultivate gardens on land belonging to subclan B. To cement the relationship, Jandu's subclan gave Wamaki a block of garden land on a river terrace which Wamaki's sons may eventually inherit. The land was given to Wamaki as an agnate, so no wealth transfers were set in motion as is the case with *jangi* gift transactions.

After Jandu died, Wamaki continued to live in the same hamlet and garden with Jandu's son, a man with little influence in the subclan. Wamaki planted cocoa on land near their hamlet with the permission of Jandu's son. A bigman from the same subclan became incensed at this, and argued successfully, employing the rhetoric of descent, that because Wamaki was not a 'true' agnate of the subclan, he therefore had no right to plant permanent cash crops. After much argument and ill-feeling, Wamaki's rights to plant cocoa on subclan land were revoked, and he was forced to uproot his cocoa trees. Thus, some of the agnatic rights promised to him by Jandu were denied. Wamaki and his sons moved back to his FWB's hamlet in subclan C, but the garden land given to them by Jandu, still remains in their possession. In 1989/90 Wamaki's sons were gardening land belonging to the subclan of Jandu's son and the subclans A and C. Villagers say that Wamaki and his sons '*stap namel long Miko*' (between the subclans of Miko 2 without full rights in any of them). In 1989 one of Wamaki's sons was accused of siding in an argument against a young man from subclan A, a subclan which had granted Wamaki some land for a temporary food garden. Subclan A responded by forbidding Wamaki to plant yams on their land, land which Wamaki had already cleared and fired ready for planting — a loss of two weeks solid work.

*Case 2: From yu-oto to jangi recipient.*

Pakundu has four sons and three daughters, the oldest approximately 16-years-old. Pakundu's father married into Miko 2 from a northern village. Sari (Pakundu's MB), a former bigman in Miko 2, had no sons, and decided to adopt Pakundu as a *yu-oto*. At the time, his mother publicly circled his head with an axe, which she then plunged into the base of an old coconut palm planted by an ancestor, declaring that Pakundu was to take her '*spes*' (place) in the village. The act signified Pakundu's adoption into the subclan as a true agnate, who would eventually take the place of Sari when he died. Pakundu's adoption as an agnate was confirmed when Sari financed his marriage.

After Pakundu's marriage, Sari took another wife who bore him three sons. Sari died in the early 1980s, and Pakundu's two younger brothers returned to their father's natal village. Pakundu remained in Miko and now associates closely with Sari's three sons, gardening with them, and cutting their sago. But no sago grove is earmarked for Pakundu nor his sons, which indicates that his sons will not be granted agnatic status in the subclan. Pakundu says that those of his sons not adopted by their FMBSs, will, when they reach maturity, return to the natal village of Pakundu's father. One adoption has been arranged to date. His youngest son, when weaned, will be adopted by Pakundu's MBS (one of Sari's brother's sons who has no children of his own). Another classificatory MB of Pakundu, also without sons, has made a request to adopt one of the sons, but this has yet to be confirmed. However, his sons will be confronted with the same problems as

Pakundu himself. When they mature, they are likely to be in competition for resources with the agnates of their adopting father.

The relationship between Pakundu and Sari was initially fictive with Pakundu as an adopted son. However, the relationship between Pakundu and Sari's true sons has reverted to one of *jangi* with Pakundu related to Sari's sons as a wife-taker. Resource access is therefore granted to Pakundu under the principle of *jangi* exchange. His resource access rights are also alienable. Because Pakundu's family has derived sustenance from the land and sago belonging to Pakundu's MBs, the latter will expect a larger than usual share of the bride wealth received for Pakundu's daughters. Thus, the wealth available to Pakundu to finance the marriages of those sons not adopted out, will be greatly reduced so that some of them may never marry, unless they can find sponsors to support them. This is becoming increasingly difficult because of reduced opportunities for *wyngwae* and *yu-oto* adoptions.

Pakundu maintains that he is not free to leave his MBs and return to the natal village of his father. To leave would require him to compensate his MBs with a pig and shell rings, something he recognises he would never be able to afford (his marriage was financed by his MBs and his family grew up on the food from their land). Also, like other recent immigrants, his position in indigenous exchange networks militates against his capacity to accumulate wealth (net giver in exchange — Curry 1992). If Pakundu left without clearing his obligations he runs the risk of invocation of the MB curse,<sup>14</sup> and it is unlikely that his MBs would permit him to take his children with him. Moreover, he claims that because he is 'bonded' to his MBs lineage he has never taken contract work away from the village.

*Case 3: Yu-oto status rescinded and a reversal of roles between wife-givers and wife-takers.*

Bikumbu has a wife and one daughter. He was adopted as a young man (*yu-oto*) by Gwandomi of Miko 1 who had no sons of his own. Gwandomi financed Bikumbu's marriage which formalised the adoption and should have allowed Bikumbu to inherit Gwandomi's agnatic rights to land, sago, and other resources. However, following Gwandomi's death, Gwandomi's brothers and their sons disputed Bikumbu's inheritance of agnatic rights to resources. They gave most of Gwandomi's sago to Mambi, their ZS (*wisakut*) who lived in Miko 2. Bikumbu was allowed to inherit a small area of sago, but it is on land tied-up in a ground dispute with a neighbouring village. The dispute has flared in recent years and Bikumbu is unable to use the sago. After being marginalised by his adopted subclan in Miko 1, Bikumbu moved with his wife to Miko 2 and took up residence with Mambi's sons, his classificatory FZSSs (Mambi had died).

Mambi's sons said that they invited Bikumbu's family to live with them because they 'felt sorry for them'. However, Bikumbu and his wife give them much labour. As well as providing garden labour to resident members of Mambi's lineage, Bikumbu also cares for the yam gardens of two of Mambi's offspring who are living elsewhere: a daughter residing in West Sepik Province and a son living in West New Britain Province. In their absence Bikumbu and his wife maintain their yam gardens. Although he cultivates land belonging to Mambi's sons and receives most of his sago from them, his connections with Gwandomi's subclan have not been severed completely. He occasionally cuts their sago palms and sometimes cultivates their subclan land. For the most part though, he now focuses his activities on Mambi's sons.

Bikumbu has no sons and because of his insecure tenure in Miko 2 is unlikely to be offered a son for adoption. By Abelam standards he is in an unenviable position. Without sons to replace him, he will not become the *gwaleaba* of living kin.

and so his connections with the world of the living will cease on his death and he will quickly be forgotten. Any rights that he retains in his former adopted clan will pass to the sons of Gwandomi's brothers.

Bikumbu's relationship to Mambi's sons (his classificatory FZSSs) is unusual, in that his relationship as classificatory WG to Mambi's lineage appears to have been reversed. That is, Bikumbu behaves as a WT rather than a WG in his interactions with Mambi's sons. If he provides them with labour or food items, such as uncooked yams, they do not reciprocate with the payment of *jangi* compensation which is the culturally prescribed response for gifts from WGs to WTs. On several occasions when Bikumbu's wife was given a portion of sago palm belonging to Mambi's sons, both Bikumbu and his wife said that they would pay compensation for this gift of *jangi* — a response consistent with the status of WT. This is the only instance of a role reversal between WGs and WTs identified during fieldwork. It may have been effected because of the cultural incompatibility of WTs granting resource access to WGs, and was perhaps facilitated by the fact that the relationship between them was classificatory.

*Case 4: Asserting agnatic rights to resources.*

Jipol is a young married man whose paternal grandfather left his natal village of Miko 1 to live with his sister when she married into a village to the west. Jipol does not know why his grandfather moved. Jipol and his father were born and raised in their adopted village, and had little to do with their subclan in Miko 1. They associated with the subclan into which Jipol's FFZ had married, gardening their land and cutting sago belonging to their affines. When his father died, Jipol began making claims to land and sago arguing that it was his patrilineal right. His claims were rejected outright, and he was forced to move to his wife's village to the south. Since his move, he has made several unsuccessful attempts to re-activate the agnatic rights his paternal grandfather held in Miko 1.

*Case 5: The granting of classificatory status as a wife-taker.*

Brindu's mother and father, from a nearby village, moved to Miko 2 during the Second World War and raised two sons and two daughters. The family cannot explain their parents' move to Miko, but they may have been temporarily displaced by the fighting and decided to remain in Miko after the war ended. They became affiliated with an established lineage of subclan C, who Brindu and his siblings call MB (*au*), although they are unable to trace any genealogical connection. Their dependence on MBs for garden land, and access to sago, is solely within the context of *jangi* from WGs to WTs rather than through any quasi-agnatic relationship. Their access to land and sago is in the realm of gift exchange from MBs to ZSs, and as such must be reciprocated with return gifts of wealth items and labour. Also, because the relationship is founded on *jangi*, Brindu and his brother are not assured of permanent tenure rights to land and sago.

Both brothers and one of the sisters are single. Brindu is approximately 40-years-old, his younger brother about 25, and his unmarried sister approximately 20. Although I was unable to determine why the brothers are single, it seems likely that they were unable to secure a sponsor to finance their marriages — their father died about 20 years ago. If the two brothers remain single, their lineage, like Case 3, will become extinct.

*Case 6: A segmented lineage.*

Bagatir and Bagandu are two brothers whose father moved permanently to Miko 2 to take up small holdings of Miko 1 clan land. Both brothers are married and each

is affiliated with a different subclan. They reside in different hamlets and rarely interact with one another in daily activities. The older brother Bagatir, has six daughters and one son and they all reside in the same hamlet as Kipamingi, Bagatir's WBS. The relationship between Bagatir's family and his WBS is particularly intense: Kipamingi's family regularly supply Bagatir's family with cooked food. Kipamingi also provides them with second-hand clothing, and through the *jangi* relationship allows them access to his sago grove. Kipamingi is investing (sustenance) in his father's sister's family. He draws upon their labour, especially in gardening, and will be the main recipient of his ZDs' brideprices.

Bagandu, the younger brother, has been married for only a few years, and has a young son. Bagandu's father was unable to raise a bride price for him and a classificatory brother from the subclan with which he is affiliated financed his marriage. The sponsor was able to negotiate a very low bride price for Bagandu's wife, because she deserted her previous husband when she was lured to the village by another Miko man who subsequently refused to marry her. Bagandu recognises that if his sponsor had not been able to negotiate a low bride price, he may have never married. A lower bride price was acceptable to her former husband's relatives because her two children by her former husband remained with his family.

The above case studies not only reveal the increasing difficulties for immigrants claiming agnatic status in their host groups, but also the serious implications for resource access in being denied agnatic status. Indeed, the data suggest that the increasing emphasis on descent for group membership and resource access has culminated in a pool of resource poor immigrants on the social and economic margins of village society (for more detail see Curry 1992). Amongst the nearby Kwanga to the west, this process of marginalisation may be at an incipient stage. Brison (1994:42) noted that patrilineality is becoming more important as a recruitment principle. She suggests that increased emphasis on patrilineality is a recent response to perceived resource shortages, but implies that discriminatory practices against nonagnates are not yet clearly identifiable. Perhaps as resource pressure continues to build among the Kwanga, they will respond in ways similar to the more densely settled Abelam of the northern Wosera.

Because Miko immigrants are now identified as immigrant lineages and hold few resources agnatically, they are denied the benefits of agnatic status (inalienable rights of resource tenure and balanced exchange dealings). Inequalities are not simply a matter of immigrants holding fewer resources than 'core' subclan lineages, but are accentuated by the system of kinship which defines the social and economic relations between individuals and groups, and contributes to the relative poverty of these people (Curry 1992; 1994). With circumscribed agnatic rights, or none at all, immigrants are compelled to enter relationships of unequal exchange with WGs to meet their resource needs. If they derive their sustenance from the land (food gardens) of WGs, then they are in receipt of a gift of *jangi*. Similarly, if they rely on WGs for access to sago palms, the palms which they utilise constitute gifts of *jangi*, and return flows of *jangi* compensation must be made. WGs thus provide a culturally acceptable avenue for access to the means of production.

The nature and impact of these flows of *jangi* exchange were examined in a weekly survey of 32 households over a 12 month period (see Curry 1992 for details). Briefly, by utilising the affinal exchange relationship to gain access to resources, recent immigrants are net givers of garden labour while 'core' subclan lineages are net recipients. 'Core' lineages are also net recipients of cash circulating in indigenous exchange networks, a great deal of which consists of *jangi* compensation for the granting of resource access to WTs. Cash received through indigenous exchange is redirected to the market economy to supplement their levels of disposable income, thereby giving households in 'core' lineages disposable cash incomes nearly twice that of immigrant households. Thus, 'core' households spend significantly more cash on food, clothing and travel than their immigrant counterparts.



The agnatic descendants of refugees and in-marrying males (*kud-du-taundu*) not granted agnatic status or not adopted as *yu-oto*, have perhaps the most precarious access to resources. Unrelated individuals such as refugees were sometimes given fictive status as WT's which permitted them access to resources through *jangi* (Case 5). An in-marrying male is dependent on his wife's brothers for resource access. It is said disparagingly of such men: '*man bai kamap olsem meri, na meri bai kamap olsem man*' — which refers to the reversal of the conventional practice of women joining their husbands' lineage, and also implies, that like women, these men have no claim to land. The children of such a marriage live with their MBs, the next generation with their FMBs, and so on. After several generations their agnatic rights lapse in the subclan from which they originally migrated, and, as shown in Case 4, they may find themselves in a double bind of insecure tenure in their host subclan and also in the subclan from which they hailed.

In contemporary Wosera society, male descendants of *yu-oto* are increasingly having problems assuming their agnatic rights in their adopted lineages. In such cases the descendants of *yu-oto* may be referred to as '*kud-du-taundu*' ('man who has come from another place') which denotes, somewhat derogatorily, an absence of agnatic rights to resources (Cases 2 and 3). Men in this position must argue vigorously that they are descendants of *yu-oto* and thus have agnatic rights to land and sago. A *yu-oto*'s male descendants may compete for land and sago with the 'true' agnates of their adopted lineage. Such a situation was described in Case Studies 2 and 3, whereby men who were originally incorporated as *yu-oto* have had their agnatic rights revoked after the death of their adopting father. In these instances, the men resorted to using relationships of *jangi* for resource access.

Before concluding this paper it is useful to consider the objections that have been raised regarding the applicability of descent models to describe PNG societies, and to assess their relevance for the Wosera today. The more important of these are:

- nonagnates, in the process of assimilation into new social groups, are expected to follow the same exogamy rules as their hosts, ie, behave like agnates (Salisbury 1956:5; Reay 1959B:81; Langness 1964:172; Du Toit 1964:93; Meggitt 1965:42; Glasse 1968:34; A.J. and A.M. Strathern 1969:142, 152; Mandeville 1979:106);
- nonagnates are reported to experience no social or economic discrimination as a result of their kinship status (Bulmer 1960:2, 4; Barnes 1962; Salisbury 1962:14, 70; Brookfield and Brown 1963:177; Langness 1964:169–72; de Lepervanche 1967–8:136; Mandeville 1979:109);
- nonagnates can become powerful members of their host societies (Elkin 1953:186, 194; Ryan 1961:109, 169; Barnes 1962; Brown 1962:66; Newman 1965:101; A. Strathern 1971:201); and,
- men often have allegiances to more than one group and genealogies are often shallow (Barnes 1962; Langness 1964:165; de Lepervanche 1967–8:134, 136; Glasse 1968:78; Wohlt 1978:277; Mandeville 1979:108).

These problems raise doubts about the validity of unilineal descent models and require brief comment with regard to the Wosera. First, Miko immigrants behave as agnates in certain contexts, but not in others. Miko immigrants claim, and are said by 'core' lineages, to belong to their host subclans. In dealings with outsiders, they are identified as agnates of their host subclans and behave accordingly. For instance, in disputes with outsiders they support their host subclan, contribute towards compensation payments and generally behave as agnates. Relations internal to the subclan are another matter. Because immigrants rely primarily on *jangi* exchange relations for resource access, they cannot behave as agnates

towards 'core' lineages with which they are related as WTs. A notable exception, as indicated above, is where males are adopted as *yu-oto*, which technically gives them agnatic status in their adopted lineage. However, even in this situation, their status is insecure and can be revoked after the death of their adopting father (Cases 2 and 3).

On a related point, Barnes (1967:37) observed that in some highland societies, members of social groups often refer to each other idiomatically in agnatic terms, so that nonagnates, after a period, become treated as if they are agnatically related. This is also partly true of the Wosera. Idiomatic agnatic terms are used by 'core' lineages in reference to immigrant lineages where no direct kin relationship exists between them. Actual host lineages remain in relationships of unequal exchange as WGs to immigrant lineages. This has also been noted for some highland societies (see Mandeville 1979:110–1 and Healey 1979:106, 113). Although some lineages use agnatic terms in reference to immigrants, this does not give immigrants inalienable rights to resources. It is through relationships of *jangi* that immigrants gain access to much of their resources.

Secondly, immigrant males can and did achieve powerful positions in Miko society. Several males invited to settle in Miko were recognised to be powerful bigmen, with highly valued skills in warfare or yam cultivation (Case 1). However, despite the success of exceptional immigrants in achieving power and influence in their lifetime, the point remains that if they are unable to demonstrate putative descent from a subclan ancestor, they are now effectively precluded from holding agnatic rights to resources. Thus they become dependent on nonagnatic relationships for resource access.

Third, the flexibility of Abelam social structure has long been recognised, and researchers commented on the apparent ease with which individuals could change their allegiance to groups (eg, Lea 1964:51; Forge 1990:167). This must be viewed in the context of historical change, because it is the decline in flexibility that has contributed to the present predicament of immigrants. With a growing population and village defence no longer an important factor, 'core' lineages are becoming increasingly reluctant to grant agnatic status to immigrants. Descent as a rule of recruitment is assuming greater importance in determining group membership, and by extension, resource tenure.

Barnes' (1967:40) re-interpretation of Meggitt's (1965:32) evidence for the patrilineal inheritance of land led him to propose patrification as an organising principle. For the pre-colonial Wosera, patrification provides a better description of social organisation than patrilineality. The high degree of spatial and social mobility was facilitated by a system of social organisation that allowed men to become agnates in their adopted subclans filling vacancies within the ritual and competitive exchange system. But in the colonial and postcolonial periods, the erosion of these exchange relationships and higher survival rates in all age groups leading to increased resource pressure, means that the previous ideological and practical conditions of patrification are no longer tenable. Instead, long established 'core' subclan lineages are able to use the rhetoric of descent ideology to close group boundaries and restrict access to resources.

However, there are aspects of Barnes' model of patrification that superficially appear to apply to the contemporary Wosera Abelam, but which do not hold up to close scrutiny. Men do inherit certain rights from their immigrant fathers, but these rights need to be specified carefully, and distinguished from the inalienable resource rights associated with agnatic status. For example, a man may inherit tenure to a sago grove that his father received through *jangi* from a MB, but his inheritance of this resource does not mean that the sago grove becomes an inalienable resource held by him on agnatic principles as Barnes would argue. The sago is still considered to be a gift of *jangi* and therefore remains alienable and subject to *jangi* transfers of wealth and labour to FMB for the continuation and validation of access rights. Land for gardening is another example. Because a man's father gardened a certain area of land (eg, his wife's natal land) means that he is also likely to garden the same land, but he will be gardening the land belonging to his MBs. Again he does not have

inalienable agnatic tenure to this land, because his access is still within the framework of *jangi*, ie, a gift of access granted by his MBs. It may appear as if the son inherited these access rights from his father, but it does not mean that in the process of 'inheritance' they are converted from *jangi* to agnatic rights held corporately by his lineage.

Other factors implicated in group solidarity and definition such as shared territory and co-residence, shared 'substance'/food and, cooperation in exchange (see introduction for references), do help define Wosera group boundaries and were probably more important in the precolonial period. Nowadays, however, immigrants' rights and relationships are not converted to agnatic rights on the grounds of co-residence, commitment and cooperation with their hosts. So although an immigrant lineage may claim agnatic affiliation with a host subclan, such membership does not give them inalienable rights to the resources held by that subclan and its component lineages, that is, resources are not distributed equally between subclan lineages. Some resources such as sago, permanent cash crops and other economic trees and palms, are under the exclusive control of the lineage. With land too, which is generally under the control of the subclan as a whole, immigrants are often granted access under rules of gift *jangi* rather than as an agnatic right arising from subclan membership. Therefore, although an immigrant lineage may technically belong to their host subclan, they hold fewer resources agnatically, and are compelled to utilise affinal exchange relationships for resource access.

### CONCLUSION

One of the most significant responses to growing population pressure in the Wosera has been the closure of group boundaries and the emergence of a patrilineal-like system of social organisation. By employing the rhetoric of lineage ideology, 'core' subclan lineages are now being defined *vis-a-vis* immigrant lineages to promote agnatic exclusiveness in relation to subclan resources. Recent immigrants are the legacy of a precolonial system of flexible recruitment, and are adversely affected by these changes. Their incorporation as agnates has slowed, ceased, and in some instances, even reversed. With reduced mortality rates, more lineages are flourishing and opportunities for the assimilation of immigrants are becoming less common. Nowadays, immigrants on the margins of village society are more likely to remain there, and, unable to secure rights as agnates, become dependent on relationships of *jangi* for access to resources which entails heavy exchange obligations. Some immigrants have made attempts to re-activate agnatic rights in villages from which they originated. Such a course of action is limited, because the subclans from which these lineages hailed are likely to contest any agnatic claim by returned migrants. These villages are also probably experiencing population pressure and would be reluctant to accept outsiders, particularly if agnatic kin connections are remote.

With a greatly diminished need to recruit outsiders for defence, only one other avenue for assimilation remains, but that is also likely to have diminished significantly in recent times: adoptions of young males to replace a man who has no sons of his own. The emphasis of recruitment has therefore shifted from the macro-level (village level defence reasons) to the micro-level of the individual. Such adoptions are now fraught with difficulties, as descent assumes greater importance for group definition and more sons are raised to marriageable age. Whilst a man may have no sons of his own, he is likely to have agnates who will compete with his adopted son for control of resources. This is occurring already. Men adopted as *yu-oto*, and thus eligible to inherit their adopting father's agnatic status in the subclan, have had their agnatic privileges usurped by their adopted father's agnates. Their status as *yu-oto* has been rescinded, and some have resorted to relationships of *jangi* for resource access.

The long-term prospects for immigrant lineages are not good. With a gradual tightening of tenure rules, it is probable that *jangi* demands on immigrant wealth and labour will

increase as they strive to maintain resource access. The dual role of cash as an exchange valuable and medium of exchange is particularly relevant in this process (Curry 1992; 1994). Immigrant efforts to maintain resource access may become increasingly directed to raising cash in the market economy to service their growing obligations in the non-market exchange economy. Moreover, increased participation in the market economy is most likely to be through expanded garden production for local markets rather than by an expansion in permanent cash cropping, because of a reluctance on the part of resource-rich lineages to grant long-term access to land to 'outsiders'. Whilst most immigrants at present have some permanent cash crops, it is probable that their son's participation in the cash economy will become even more restricted, perhaps confined to garden production for local markets. For the foreseeable future, immigrants are destined to remain on the social and economic periphery of village life with perhaps little alternative in the long-term other than to emigrate permanently from the village.

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#### NOTES

1. Waddell (1973), while supporting Meggitt's contention that 'stress on agnation' is related to population density, argued that it is not population density *per se* that is the determining factor, but the degree of agricultural intensification: '... it is precisely those societies that effect substantial improvements to agricultural land through tillage that place the greatest emphasis on agnatic status, for it is those that are likely to suffer the most materially from fluidity of group membership and loyalty.' (1973:51-52).
2. It has been argued elsewhere that this emerging stratification of Wosera society is reflected in differences in social and economic status between a group of immigrant lineages of less than four generations of village residence and a wealthier group of established lineages of at least six generations of village residence (Curry 1992; 1994; Koczberski and Curry 1996). This socio-economic division is reinforced and accentuated by the mechanism of indigenous exchange which favours long established resource-rich lineages at the expense of resource-poor immigrants.
3. In 1986, coffee and cocoa incomes were less than one quarter of the rural Papua New Guinean average (PNGIMR 1986). In 1993 national per capita income was K520, and K320 for the East Sepik Province (1K = A\$1.51) (AusAID 1995:131, 149). For Miko 2 Village, per capita income was K24 in 1988/89 (Curry 1992:104).
4. Under-nutrition has been recognised as a problem in the area since the early 1960s, with earlier research pointing to severe food shortages as the cause (Bailey 1963; Schofield 1963; Lea 1964).
5. Similarly, in other areas such as consumption and exchange the family is not a distinct unit. For example, inter-household exchanges of cooked and uncooked food occur on a daily basis, usually within the same hamlet. But in special contexts, food exchanges also occur between hamlets, such as during periods of mourning, following childbirth, initial menstruation seclusion, house thatching and dispute resolutions (Koczberski 1989; Curry 1992:43).
6. In 1965 the grasslands were estimated to cover 19% of the central Wosera area (Bureau of Statistics 1965), and are probably expanding under increasing population pressure.
7. Roscoe (1989) argues that the Island, Coastal and possibly Yangoru Boiken are as much Torricelli as Ndu in their ancestry.
8. Koczberski (1989:92-93) notes that male involvement in warfare, ritual exchange and the tambaran cult influenced gender nurturing roles. For example, if a man's ritual exchange partner (*tshambera*) discovered him carrying an infant he would be ridiculed publicly and his yam harvest would be anticipated to be inferior, because a breast-fed infant would 'contaminate' the man with female essences.
9. Women, on their death, are believed to join the ancestral complex of their husbands.
10. Adoption of infants is a staged process, sometimes beginning before the child is weaned. MB will inform his ZH of his desire to adopt, and if agreed, MB begins to send food to his sister, the infant's mother. Thus a claim in the infant is built-up through the provision of food. After weaning, the child is gradually assimilated into its MB family. Under certain circumstances MB may adopt one of his sister's sons even if he has sons of

- his own. This might occur, for example, when his own sons are very young, and he is politically ambitious and seeks to build a support base for himself (Forge pers. comm.).
11. In contrast, a prestation from WTs to WGs does not generate any return flows of wealth or labour and constitutes a reaffirmation of the relationship (for more detail see Curry 1992).
  12. Shell rings (*yua*) are cut from giant clam shells (*Tridacna gigas*) by six mountain Arapesh villages to the north (Forge 1990:165). Traditionally, the Wosera traded pigs for them at the rate of six per pig (see Curry 1992). The six rings vary in size and are matched with various parts of a pig's body. Rings range from a few inches to nearly a foot in diameter and are used in brideprices, mortuary payments, compensation payments, exchange networks between kin and to settle disputes. For details of their manufacture see Mead (1938:317–319).
  13. The sago grove is not very large, and villagers regard Wamaki's lineage to be short of sago.
  14. Obligations to MB are sanctioned by the MB curse which gives him power over the health and wealth (yam and pig production) of his sister's children, as well as the reproductive capacity of his ZD. These beliefs together with the specific obligations between MB and ZS/ZD at various stages of the life cycle are described in Curry 1992:177–181). It is these beliefs that underpin and give substance to the economic relationship between WGs and WTs.

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**Errata:**

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p. 156, l. 20 should read ( $\chi + y, \chi \times y, \bar{\chi}$ )

p. 156, fig 1 should be rotated 180°