THE WAHGI *OPO KUMBO:*

AN ACCOUNT OF WARFARE
IN THE
CENTRAL HIGHLANDS OF NEW GUINEA.

[1993]

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SUBMITTED IN CANDIDATURE
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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This study of warfare among the South Wahgi people, Western Highlands, Papua New Guinea, employs concepts and methods from the field of archaeology, anthropology and ethnoarchaeology: These include the translations of indigenous accounts of the origins of groups, the of history of war, analysis and reconstruction of genealogies and history of war marriages, the presentation of ethnographic battles and material culture of warfare.

The ideas of the Wahgi people about warfare are deeply rooted in religious beliefs, which are based on the divine relationship between the present generations and their previous sources. The socio-cultural landscape is seen as the mirror image of the invisible world and the latter religious landscape is granted divine status through the transformation of the shadow-image of the living persons into the all encompassing divine source *Kipe*; the ancestral spirits. The *Kipe* are the guardians of the living world and the underlying principle of the belief system advocates harmony and spiritual equality. The notion of equal partnership is based on two conditions of relations; moral credits and debts. Fertility in women, animals, soil and the general well being of the community are an outward expression of the balanced relationships between individuals and the gods.

The balanced or unbalanced nature of these relationship is central to the initiation and conduct of warfare. Prior to warfare, there occurs a process of war talk linking these relationships to the complex patterns of moral goodness and defiance of the religious order. The art of war talk requires the revelation of all the wrongdoings of individuals and of groups to an audience in the battlefield. The rituals surrounding the conduct of war are based on a retributive logic, in which every action and counter action by the fight partners must be assessed and explained.

The moral conditions of the warring groups is assessed through the art of public shield displays and performances in the battlefields. The shields are religious objects and interact between the warriors and their gods, in that the decorations, designs, colours on the wooden surface and the presentation to the audience is meant to reflect the good and bad qualities of the performing groups. The meanings are read by the audience. An affirmative statement is seen as a moral victory so that in the actual engagement, the fighting force will attack the opponents knowing that the gods are on their sides. A bad

performance means the opposite; the gods are not pleased because the sins have not been confessed and the internal talk of balance has not been restored.

If the confession before the public display is not taken to restore the internalised disharmony within a warring group and it's gods, the group is likely to face moral defeat, death and migration. The gods will help the opponents to punish them. Defiance of the moral standards of the Wahgi is a breach of the sanctified order. Death in the battlefield is read as a divine punishment; *sin bilong em yet i kilim em*, his own sins punished him.

As well, this study looks at the knowledge, meanings, ideas and values of the people. Archaeological evidence of past wars is found to be preserved in a form of 'cultural heritage managment' involving such elements as skeletal remains, artifacts of war, and the symbolic planting and modification of the social landscape.

Indeed the Wahgi concept of time is based on cultural metaphors that describe the biological stages of plant growth, demonstrating the individual life cycle of the inheritance of the religious life giving substances. A similar model is used to describe social reproduction or segmentary division of social groups. The transformation of the breeding population to sovereign units is based on four generational cycles and the process of group segmentation of the social structures is bilateral; the diachronic processes are viewed in ascending and descending order. The ascent kinship system is based on various stages of the growth of plants encompassing such terms like roots, bases, stems, stocks, branches and vines. This kinship system operates within predictable rules and provides an insight into the history of warfare.

A particular emphasis was put on the links between contemporary warfare and the recent past of Wahgi culture. Based on a combination of oral and historical sources the history of war from the initial settlement to the emergence of the contemporary *Ka* (Clan) groups, covering a period of four hundred years, was reconstructed. The movements of the founding population of the current groups in the Wahgi Valley probably coincides with the introduction of the cultigent sweet potato (*Ipomea batatas*) from South America by the early seafarers in the 1600s.

In summary the central issues explored in this study of warfare are (a) a detailed description of the cultural landscape, (b) the tracing the idea of paired and balanced existence to its religious roots, (c) the particular historical and ethnological understanding of warfare and (d) the emphasis on individual intentions, purposes and their role in the construction of socio-cultural landscape in the highlands of Papua New Guinea.

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Acknowledgement.

I conducted the research on Wahgi warfare in three regions; Cambridge, Australia and Papua New Guinea.

In Cambridge I wish to thank Dr. Hodder's for his constant encouragement, and for allowing me to write the thesis within the context of PNG time. Dr. Lewis, Rosemary and Associate Professor Les Groube initially encouraged me to embark on this project and continued to support me throughout the duration of my studies in Cambridge. Dr. Bayliss-Smith, Dr. H. Hughes (my College tutor), Dr. T. Whitelaw and the college staff Ms. S. Smith, 'Val' and 'Nobby', made me feel at home in St. John's College.

Dr. C. Shell assisted me to use the facilities in the Department of Archaeology. Dr. M. Edmonds and Dr. J. Offer provided constructive comments on a number of chapters. Dr. M. O'Hanlon and L. Frankland's insights into some of the Wahgi ideas encouraged me to assess the moral and religious aspects of warfare and to be able to speak with them in Wahgi language in the heart of London City.

In Australia, Professors Golson, McBryde and Chappell, assisted me in my field trips to the Australian National University. David Wardlaw, Toby Golson and Paul Murphy came from Australia and participated in the fieldwork in the Wahgi Valley. David and Kelly Kapak collected the bulk of the data on the wooden shields from Tapia region. I wish to thank Toby Golson for providing financial assistance and helping me to have access to a research vehicle (1989-1990). M. Meere has always encouraged and supported the research.

In Papua New Guinea, the authorities in Western Highlands Provincial Government took specific interest in my research project. I thank Peter Wamma, Hosea John, Ben Kugam, Kupil Kos, Talu Undai and Malchom Culligan. The transports needs were assisted by Ben Kugam, Gigma Kos, Kupil Kos, Peter Wamma (Secretary's Dept WHP). Micheal Mel, Neville Clarkson and Tere Nombri of Wahgi Klos and the Provincial Education Division.

I have written aspects of our history; the Kuma, Nene and Dambnge people. I have acknowledged the individual contributions throughout the thesis by using the initials

Embe Eri (Em Tasol)

Introduction

Childhood encounters.

I was a schoolboy in the early 1970' when my Tangilka clan became involved in a territorial dispute with the neighbouring Kamblika. At that time, the Tangilka children were attending a primary school which was situated in the Kamblika area, and it was common for boys from different clans or sub-clans to imitate their elders and stage mock fights between themselves. The weapons that we used were an almost exact replica of proper fighting implements: bows and arrows with their tips blunted and protective shields made of bark; the most serious damage that could occur during these 'war games' was the loss of an eye. Naturally enough, such practices were condemned by our missionary teachers. The 'ring leaders' were reported to the school authorities, brought to the assembly line and whipped. These corrective measures had little impact: in 1979, the same individuals could be found at the frontline of their respective clans, engaged in a major war which claimed a number of lives.

With this brief childhood reminiscence, I want to set the perspectives and objectives of this study of warfare - *opo kumbo* - in the South Wahgi Valley of Central Highlands Papua New Guinea.

My initial awareness and interest in warfare is that of an indigenous participant, and not an academic anthropologist. While my knowledge of Wahgi warfare is not complete (some aspects of it were not available to me, and others remain restricted) and while the positions and interpretations that I present here are my own, my access to Wahgi conceptions and practices is nonetheless direct and comprehensive. My purpose is to complement the substantial body of anthropological knowledge accumulated in the Wahgi Valley for the past 30 years with my own 'insider' understanding. Indeed the anthropological knowledge produced by numerous temporary observers under a variety of theoretical concerns is of obvious interest: for its comparative approach, for its

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methodological procedures, and for the insights brought by observation from the 'outside'. I review the relevant literature below, and make use of it throughout this study. Pointing out some of the differences and the similarities between the things said about 'us' and our own ideas about the nature and practice of warfare will enable me to take on and to fulfil the role of an indigenous ethnographer and archaeologist.

My intention, however, is not to produce another ethnography of the South Wahgi. As the childhood memories make clear, the phenomenon of warfare is a pervasive and important one in Wahgi society. For example, I have mentioned that the Tangilka and Kamblika were involved in a territorial dispute. We cannot conclude, however, that the factor "competition over scarce resources" is in itself sufficient to explain Wahgi warfare. The settlement of the flood plains, their exploitation for cash crops, and the ensuing shortage of land are all recent, post-encounter events. Warfare in the South Wahgi Valley has started much before that time, and for different reasons. Furthermore, the war between Tangilka and Kamblika was not a 'total war' of indiscriminate destruction, carried out on the spur of the moment. The two traditional enemies planned to go to war since the 1960', and the Tangilka staged their pig kill in 1966, together with the secret preparation of fighting shields and a reduction of wealth to suit the condition of war. Indeed, Wahgi warfare is a regulated affair: even our mock fights as schoolboys followed set procedures, and used weapons in an orchestrated manner. In the school-yard as much as in the battlefield, there occurs a ritualised and coordinated encounter between warriors which have been delegated by their respective communities to represent them.

The complex and multi-faceted nature of warfare in general and Wahgi warfare in particular will become more evident throughout this work. Following a general discussion on the signification of violent conflict in modern and non-industrial societies, I concentrate here on the religious, historical and material aspects of warfare in the Wahgi Valley. Wahgi cosmology and religion builds on a distinction between the

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world of people and the world of gods, two realms which must be kept in harmony and balance. It is when there is an imbalance between them that wars occur, and it is in order to restore balance and symmetry that wars are carried out. Together with these evident conceptual aspects, Wahgi warfare remains a social and historical phenomenon. It is difficult to make sense of present situations and events without acknowledging the existence and importance of the past - both that of the Wahgi people themselves, and that of their warfare. Likewise, the material artefacts involved in Wahgi warfare have an active role that goes much beyond the purely 'functional': there is a very real sense in which wooden shields reflect ideas about warfare and at the same time affect ongoing events in and around the battlefield.

These last two aspects - history and material culture - are of obvious archaeological interest. Along with this study of warfare, I attempt here to grasp the temporal dimension of a supposedly a-historical or 'out of time' society like the Wahgi. To achieve some knowledge of the Wahgi past, I make use of several sources. On the one hand I consider indigenous accounts of the origin of their own groups, 'origin stories' that are fleshed out or confirmed through the analysis of group structures, genealogies and kinship relations. On the other hand, I consider Wahgi attitudes towards the surrounding environment to be historically significant. The partition of the 'social landscape' into the human world and the world of spirits is a religious one, but it also reflects technological, economic and historical processes. It is thus possible to reconstruct various migrations and separations of Wahgi groups, and to document the important effects of the introduction of the sweet potato into the Highlands by the 16th century. These changes are independently confirmed by archaeological research undertaken in the Wahgi Valley.

At a shorter time scale, the wooden shields perform a historically similar role. I will study them here as archaeological artefacts, and submit them to a detailed dimensional and stylistic analysis. This data enables me to reinsert the artefacts in their

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active context and to show how material constraints (raw material quality, carrying weight, etc.) and symbolic expressions (designs, colours etc.) are embodied in this object.

I propose in the following sections to describe the geology and geography, to present some of the anthropological and archaeological work undertaken in the Wahgi Valley, to discuss my research procedures as a native anthropologist 'in the field', and then to detail the contents and plan of this work.

The physical landscape.

Geomorphology. The Wahgi Valley is one of most fertile of the 10 intermontane basins that spread along the 'New Guinea Mobile Belt'. This belt is a chain of mountains that runs through the middle and along the entire length of the New Guinea mainland, between 900-2000 metres above sea level. The Wahgi Valley itself is widest at the western end, at the watershed zones around Mt. Hagen township, the northern plains of Hagen and the extensive swamp systems of Komon, Baisu, Gumants, Mugumamp and Kindeng. Near Baisu is the Kuk prehistoric site, the 'birth place' of agriculture in the New Guinea Highlands dating to some 9000 years BP. (Feil 1987, Golson 1977a). These swamps, source of potential archaeological and palaeo-botanical data, are now increasingly threatened by massive commercial programmes involving the drainage of the wetlands for dry land farming of coffee and tea plantations as well as resettlement schemes.

This unusual geomorphology of the Wahgi Valley is due to the damming of the formerly westward flowing Wahgi River by the eruption of the Mt. Hagen volcano more than 200,000 years ago (Loffler 1977, Hanntjens 1970). As a result, there was ponding, down cutting and drainage reversal of the river, which led to increased development of fans and terrace surfaces eastwards. The Wahgi River was channelled

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south-eastwards to meet with the Chimbu River, so that the width of the Valley gets narrower at the river terraces around Kudjip-Fatima and as far as Kup-Kondiu regions.

Sixty kilometres down the Valley, beyond the Numants and Ga Rivers, the shape of the Valley is that of a relic watershed zone; the ridges and slopes rise sharply to the north/south walls of the Valley. The Chimbu River also cuts across "the west-north-westerly limestone hogback ridge with a south westerly facing cliffed scarp slope and a north easterly facing smooth but steep dipslope", above Kundiawa township (Loffler 1977:27). The western continuation of the hogback ridge is referred to as Porol Ridge (Brookfield & Brown 1963). East of Kundiawa the ridge stretches to Mt. Elimbari and the archaeological site of Kiowa with an antiquity of 10,000 BP. is located south of the Elimbari Escarpment (Bulmer 1974, Mountain 1979).

The South Wall mountain chains of the Wahgi basin are part of the Kubor Anticline. The traditional paths linking the southern inhabitants to the Wahgi Valley were navigated along the corridors of the Gur (3588 m) and King Kaing (3500 m) mountains. These paths were exclusively used by certain groups who stood in relation to each other as partners (trade, exchange, marriage, refugee relations, war, e.t.c.) on both sides of Kubor Range (Hughes 1977). A similar pattern existed along the northern wall, the Sepik Wahgi Divide and Bismarck Range (Lipuma 1988, Healey 1990, Heaney 1982).

Anthropological research: The Wahgi Valley and its people.

The Wahgi Valley (see Map I) is well represented in the anthropological and archaeological literature. The earliest observations there were made by colonial administrators, missionaries and foreign visitors and they include photographs and documentary films, going back even from the period of first contact (Connolly & Anderson 1987). Some features of Wahgi culture were well described, but colonial
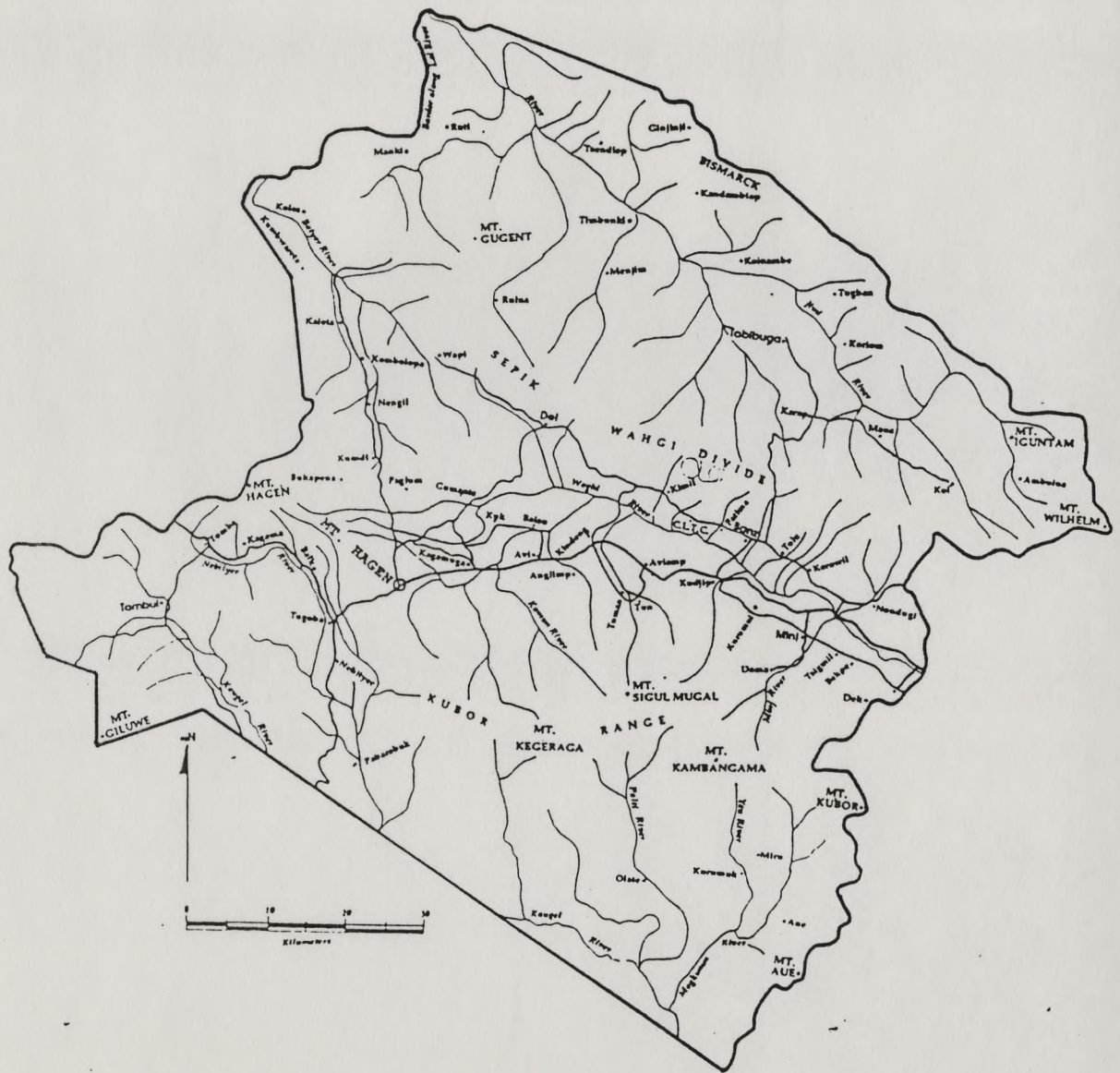
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Map I. Map of Papua New Guinea (Top) and the Wahgi Valley (Bottom) in the Wesstern Highlands Province of P.N.G. (Mangi 1992)

authorities later sought to suppress or stop some of them. This was particularly the case for the pagan religious practices, and for warfare, so that early documents on warfare in the Wahgi Valley are rare. Nevertheless, the ethnographic descriptions of the resident missionaries have added invaluable insights into the Wahgi culture. Among the notable ones are Vicedom in the Upper Valley (Vicedom & Tischner 1983), Aufenanger (1954, 1965) and Lutzbetak (1954) in the Middle Valley, and Nilles (1943, 1950) in the Lower Valley.

From the early 1950s onwards there was a boom in anthropological studies, and the Wahgi Valley became an exclusive property of many kinds of practising anthropologists. The functionalists, structuralists and ecological-functionalists, to name a few, were there. By the 1960s communities in the Valley were divided into three anthropological zones, the 'Chimbu' people (Brown 1974, 1978a, 1978b) of the Lower Wahgi, the 'Kuma' (Reay 1959) of the Middle Valley and the 'Melpa' people of the Upper Valley. The ethnic communities of the Upper Wahgi Valley have been studied by those with a predominantly British background in social anthropology. Some of the classic anthropological monographs include *The Rope of Moka; Big-Men and Ceremonial Exchange in Mount Hagen, New Guinea* (A. Strathern 1971), *One Blood One Father* (A. Strathern 1972), *Ongka: A Self Account by a New Guinea Bigman* (A. Strathern 1979), *A Line of Power* (A. Strathern 1985), *Women in Between* (M. Strathern 1972, also 1988) and *Self Decoration in Mt. Hagen* (Andrew & M. Strathern 1971).

M. Reay (1959, 1972, 1984), one of the pioneer anthropologists to reside among the indigenous tribes east of Minj Township provides the earliest comprehensive document on the social structures and functions of the middle Wahgi cultures. She used the name Kuma to describe the people living between the Kane and Numants Rivers, the southern tributaries of the Wahgi River.

Since then a succession of students have conducted research in the adjacent areas of the Kuma people. The western neighbours of the Kuma are the Ek Nii people,

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whose cultural practices is influenced by both the Melpa and Middle Wahgi traditions. Ethnoarchaeological and ethnographic studies among the Ek Nii was conducted by Burton (1985). The documentation of the history and distribution of the 20th Century stone axes from the quarries at the headwaters of the Tun River, adds a segment of history to the anthropology of the area. More importantly, Burton's most comprehensive ethnographic studies of the tribal boundaries and of group structures of a large portion of the Western Highlands Province provides a useful guide for understanding who the people are and where they live in the Valley (Burton 1987, 1988a, 1988b). His detailed descriptions of the group structures of South Wahgi enabled me to gain insights into the history of the local kin idioms and how the idioms provide clues to the chronology of past war relations.

On the north wall, O'Hanlon's (1986, 1989, and Linda Frankland) insights into the central concerns of the Wahgi people - the moral and religious dimensions visually communicated through material style, colour symbols, body decorations and public presentations - guided my own understanding and encouraged my thinking about the moral values of Wahgi society. As well, to explore further the complexities of concealed history of warfare, elegant martial displays during the course of a war and the set-piece battles negotiated in designated battlefields.

Slightly contrasting from the above studies, the field methodologies and theories used to study the Chimbu in the Lower Valley exemplified a dominant interest in cultural and ecological anthropology. The monograph *Struggle for land* (Brookfield & Brown 1963) marked the distinctive contribution of cultural-ecological anthropology. It attempted to address the questions of man-land relationships and discussed such key issues as adaptation, agricultural intensity, population density, group structure and cultural values. Since then Brown has made regular contributions in various publications (1961, 1963, 1972, 1978a) on the Chimbu culture with the overall aim to understand the total socio-ecological system of the people (Brown 1978b).

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I emphasize that while this work attempts to promote an indigenous perspective on warfare, there is little scope for providing an original ethnographic description of the S. Wahgi people. The amount of literature generated from the highlands was remarkable and within a decade unknown cultures became rather exposed and well studied. By the late 1970s, there appeared to be sufficient data on the lifestyles of the Wahgi groups to warrant general conclusions. In a review article of that period, Brown suggested that 'while 20 years ago reviewers could see more gaps than reports, now it is hardly possible to keep abreast with research findings' (1978b:264). A decade later, Feil said,

> The literature of the highlands is vast and still growing and, furthermore, subject to a wide spectrum of theoretical perspectives. Few peoples and areas remain unstudied; several have been studied more than once. Researchers in the 1980s have headed for the coasts or the highlands fringe in implicit recognition, perhaps, that the highlands, once the region of exciting anthropological prospect, is finally a bit "overexposed" (1987: 2).

The Wahgi Valley is particularly overexposed but the advantage is that the voluminous literature produced by some of the well known anthropologists and archaeologists of this day does represents some of the best ethnographic descriptions of indigenous communities in the world.

Archaeological research in the Wahgi Valley.

The early phase of archaeological research in the highlands region was carried out by White (1970, 1972), Bulmer (1975) and Golson (1977a). This work pushed the human antiquity of the highlands back into the Pleistocene. Since the post-Independence period (1975) interest in prehistoric archaeology in the areas has declined, except for a substantial amount of ethnoarchaeological research directed towards contemporary material cultures (Gorecki 1984, Burton 1984).

Recent archaeological work in the coastal regions showed that the evidence of the oldest human occupation goes back to around 40, 000 BP (Groube et al 1986). The

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earliest human occupations in the Central highlands date from 20,000 BP onwards. It has been suggested that at that time the inhabitants of the area were hunters and gathers (White et al. 1972, Blumer 1977b, Watson & Cole 1977). By 9000 BP, there appeared to have been a change into permanent settlements. By implication, this change should have been accompanied with an increase in food production, leading to higher levels of social complexity. However, there is little evidence to suggest a move towards technological sophistication. The stone artifacts at the coastal site of Bobongara (40,000 BP), for example, show a technology which seems far more complex than the subsequent assemblages found elsewhere in New Guinea. It seems as though the stone tool technology changed from complex to simple, rather than the opposite (Muke 1985).

The material culture of the highlands shows few characteristics that changed through time. The stone tool technology is limited in its range, and its products are difficult to classify into formal typologies and to arrange in a developmental cultural sequence (White 1977, Mangi 1985, Christenson 1972, Mountain 1979). White's view of the highlands cultural history is noted here.

> From several sites in the Highlands we now have a technological traditional reaching back to the Pleistocene. Within this time span we find a stone tool technology which, if anything, becomes less complex over time. Around 10, 000 years ago, we find ground stone axe-adzes, waisted blades and flake tools retouched in a variety of ways; by 1000 years ago, waisted blades are not being made and the use of simple retouched flakes has become a great deal more common; within recorded history, all flake tools were unretouched (1977:23).

The Wahgi Valley itself is archaeologically famous because of its distinctive links to the development of agriculture. In particular, the site of Kuk, more than 10 kilometres west of the study area, is well known. Under the direction of J. Golson (e.g. 1982a), the study of Kuk has been approached at a multi-disciplinary level, including the relationships between past and present agricultural practices (Gorecki 1979) agricultural implements (Steensberg 1980), stone tool technology (Burton 1984) and palaeo-environmental data (Powell & Hope 1976).

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The basic stratigraphic sequence at Kuk is divided into 6 economic phases. In Phase 1, dating to 9000 BP, a single channel system 1-2 m wide and deep was built but 'it seemed to have been short lived' (Golson 1977a:614). Phase 2 begins about 6000 BP and includes three channels of approximately the same dimensions, and also this phase appear to have been short lived. Phase 3 begins around 4000- 2500 BP, and sees the appearance of true drainage systems. Phase 4, around 2000-1200 BP, 'is characterised by a more intensive drainage regime, both of disposal and field ditches' (ibid; 622). Golson describes the latter systems as 'typically gutter-like features deeper than wide (30-50 cm against 20-40 cm) and more closely spaced than the field drains of Phase 3...' (ibid; 623). Phase 5 and Phase 6 cover the last 400 years. Golson suggested that Phase 5 involved the production of sweet potato and for a number of reasons:

> the more intensive nature of the drainage network, reflecting the sensitivity of the plant moisture; continuity in the use of the major disposal channels and the typological identity of the gridded field ditches throughout the phase; the similarity of the these latter to the field ditches of modern dry land sweet potato agriculture in the Wahgi; and finally the discovery of fragments of charred sweet potato in two excavated houses (1977: 627).

The advantages of sweet potato have been well reviewed in both anthropological and archaeological literature (Golson 1977b, 1981a, 1981b, 1981c, 1982, Golson & Gardner 1990, Watson 1965, 1967, Brookfield & White 1968, Yen 1971, 1974, 1982, 1990, Bayliss-Smith 1978, 1985a, 1985b, Bayliss-Smith & Golson 1992). It is a high attitude tolerant crop and its ability to grow in poor grasslands soils may have led to agricultural intensification and the development of soil management techniques aimed at increasing the fertility of the crop production. According to Golson and Gardner, at the time of contact the subsistence farming

> was dominated by the tropical American sweet potato (*Ipomea batatas*), a food plant superior to taro and yam in its yield and maturation at altitude, and in its tolerance of poor and agriculturally depleted soils; but the sweet potato's appearance in the island is generally agreed to have been post-Magellanic (1990:396).

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As we will see throughout this work, the origin stories, the social landscape and the groups structures all corroborate with the archaeological evidence in indicating the tremendous impact of the sweet potato on the economic and particularly the cultural life of the Wahgi people.

The study area; the South Wahgi.

Language boundaries are normally used by ethnographers to define ethnographic cultures, but any attempts to interpret the recent past of the Wahgi Valley need to use broad cultural divisions such as 'Central Wahgi cultures' (Feil 1987). The Central Wahgi cultures is part of a distinct geographical boundary and includes Chimbu (Brown 1974), North (O'Hanlon 1989, Heaney 1982) and South Wahgi (Reay 1959), Ek Nii (Burton 1985), Melpa (A. Strathern 1971, M. Strathern 1972), Narak (Cook 1970, 1980), Maring (Rappaport 1968, Healey 1990, Lipuma 1988), Kambia and the Nebiliyer Valley.

My own study area is within the Kuma territory. The term Kuma, as noted, was introduced by Reay to distinguish the social groups who inhabit the south bank of the Middle Wahgi Valley, and who speak one of the two dialects of the Middle Wahgi language (classified as South Wahgi and North Wahgi dialects; Ramsey 1975, Foley 1986). However, the term 'South Wahgi' (as a corollary to the North Wahgi used by O'Hanlon 1989) is preferred (Map II). On both geographical and territorial grounds, the South Wahgi area (henceforth abbreviated to S. Wahgi) is delimited as follows: to the north by the Wahgi river, to the south by the Kubor range, to the west by the Kane river, and to the east by the Numants river.

The total population size of the S. Wahgi speech community is approximately 30,000. The specific ethnography of warfare was recorded among the Kuma, Nene and Dambnge people, whose population size is approximately 16,000, 3,000 and 3,000

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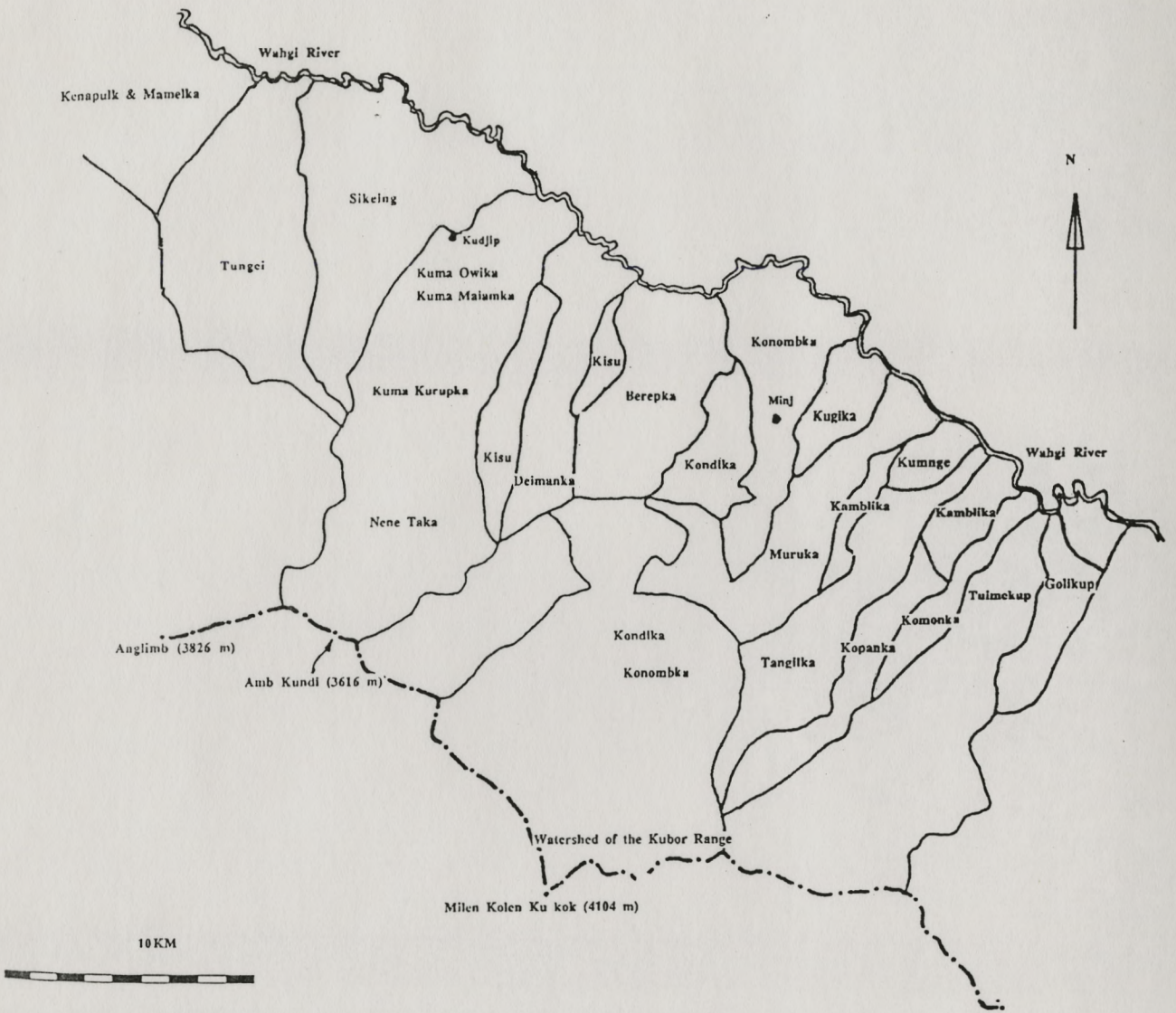
Map II. Map of the South Wahgi Valley with group names and boundaries
(After Burton 1987).

people respectively. They are organised into 20 contemporary socio-political and territorial groups. The average population distribution per clan is 1500 persons (Burton 1987). The maximal group contains 4100 persons (Kuma Konombka) and the minimal social political units consist of 500-700 persons [Kumnge (580), Kopanka (610) and Kugika (700)].

I use the term Kuma, Nene and Dambnge to refer to those individuals who derive their sense of identity by tracing their prehistoric common origins to various ancestral sites in the Wahgi Valley (Chapter 2).

Field Methodology.

Text book prescriptions on how to do ethnographic or ethnoarchaeological research mostly address the audience in terms of someone from one culture, namely the West, going to another. As Harris outlines

> the observation attempts to acquire a knowledge of the categories and rules *one must know in order to think and act as a native*. Rather than employ concepts that are necessarily real, meaningful and appropriate from the native point of view, the observer is free to use alien categories (Harris 1979:32, also Rappaport 1979:97, Evans-Pritchards 1951:61 in Blintiff 1988:34).

It is not an easy procedure to reverse the role of the anthropologist. While being an insider is an enviable position, in the sense that the experience as a participant from childhood is far greater than an observer can acquire in a brief field season, it is not easy to be an observer and a participant at the same time. The descriptions on how to study one's own community are rare and for the Wahgi Valley, despite its anthropological fame, non-existent.

In 1986, I went back to the Wahgi Valley with a camera, note book and recruited field assistants but more importantly I returned to my own community to 'study myself'. I outline the advantages and constraints by drawing examples from the role of participant observation, the process of primary data collection on the functions

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of wooden fighting shields and the attempts to collect ethnohistorical information through interview techniques.

Interviews; language. The primary interviews were conducted in the Wahgi language. It is important to draw attention to the various speech categories. As Reay (1959) describes, South Wahgi consider their own language as 'real talk' or 'truth' (*yiu wooi* or *yiu doogk*; in contrast to other languages) but this reference distinguishes the many components of structured speech categories. Some of these include 'parables' or 'folded talks' *(yiu ekin)* 'jokes' *(yiu jerel)*, 'exaggerated talk's *(yiu alapa)*, 'swear talks' *(yiu cep)*, 'war talks' *(opo yiu)*, 'secret war talks' *(opo ol)*, 'magical utterances' *(kunje yiu)*, 'stories, legends' *(yiu por)*, ' oratory talks', *(kangiep yiu)*, and 'lies' *(yiu gend)*.

'Real talk' *(yiu wooi)* is a general statement the informants used to indicate that their versions of whatever accounts were accurate 'we are telling you the truth' as opposed to lies, war talks or oratory statements. It should be noted that sometimes a distorted statement in the truth speech *(yiu wooi)* category is not a lie because the individual who is in command of the art of structured speech-making in the Wahgi can choose to address issues in any of the above categories of speech, evade certain sensitive issues, which allows him to frame the truths and safeguard the interests of his own people.

These sensitive issues centred on major issues of historical importance such as origin stories *(se danjip yiu por)*, first wars *(moss opo)*, brother clan wars *(opo karai)*, shadow brother clan wars *(yi gukum opo)*, beating war drums or peace ceremony *(opo gising)*, neutralising taboo substance *(ngumb kaimb)*, payment made to killing done by non-principal combatants *(memekem)*, paint war or revenge war *(tol opo)*, eating the banana of war or pre-war rites *(opo tau ngom)*, peeling war talk or public confession *(yiu gusim)* and taking men or compensation payments *(yi sim)*. Not all of these issues are addressed here.

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The first interviews on warfare among the Kuma, Nene and Dambnge people were conducted during the war between Tangilka, Kopanka, Tuimekup and Golikup against Kamblika, Komonka, Kumnge and Muruka which lasted for almost 10 years (1977-1986). Further data were collected in 1982 when the Kugika and Konombka pair fought against Nene Muruka. Preliminary fieldwork for this current study continued in 1985 and 1986 during the Kondika war against the Berepka, while in 1987 I observed the Konombka and Nene Kusilka war. The major field expedition commenced in 1988. During this period, I visited the Minimbi and Remndi of North Hagen for 6 months but my role was a peace mediator rather than a researcher. Towards the end of 1989, however, I observed and documented in detail the war between Konombka and Kondika (Chapter 8).

Looking at shields. Some issues inhibiting the process of primary data collection on wooden shields are discussed. First, the present shields are not from any proto- or prehistoric period. None of them were used by informants prior to outside contact, and nor were they in use from the late 1940s to the late 1970s. Those that form part of the analysis were produced within the last 10 years and used for the sequence of wars fought from 1979 onwards. They are made for wars fought during the post-contact period.

Second, the line of investigation was limited to a single network of clan alliances. Selective measurement of shields was influenced by the researcher's status as a member of the investigated side. Normally, a distance of 20 kilometres covered the geographical region of the string of allies but access routes form one area to the next are based on an alternating distribution of territorial ownership. The network of allies separated from each other by intervening enemy territory politically magnified the distance and duration required.

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Third, even if non war conditions allowed possible freedom of movement, under rare circumstances will ally groups allow their own members to mix with the enemy taboo substances. Equally, enemy groups would be reluctant to permit outsiders, and particularly those from the opponent's side, to examine their sacred objects. These problems were treated sensitively and whenever owners were reluctant to answer questions or were deliberately absent during arranged meetings their intentions were respected.

In the battlefields, the shields were about aggression, violence and part of warfare. I felt that 'the permission' to take photos during some of the ritual battles was more than sufficient for the task at hand. The need for personal safety also brought forth ethical issues about how much can a researcher penetrate into the minds of the warriors while their psychological and moral views were directed towards the conduct of war. Furthermore, I was faced with a difficult ethical issue in the process of data collection: whether I should remain a neutral person.

This is the position 'most outside researchers' are expected to take when they study other cultures. However, the discussion on the attitudes towards primitive warfare in the highlands will show that the predominant influence is taken from a western perspective (Chapter 1). Often researchers act as an agents of the state, support the attitudes of missionaries and follow some anthropological theoretical camps in which warfare is labelled as a abnormal behaviour or a social disease.

During the last forty years of fieldwork in the highlands, the interaction between fieldworkers and informants was based on certain conceptions of warfare, and not on its actual practice. As a result of this conception (and together with missionary and government influences) it was accepted by the indigenous population that warfare was wrong and should be condemned. For myself, I was at times under pressure from the state authorities and the missionaries to examine the issue as a part of 'law and order problem'.

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In contrast to the expectations of the authorities and the law or peace enforcing agencies, the pressing question I had was whether I ought to act and think like 'them'. In this case, I would be seen as encouraging the fighting groups to participate in this activity so that I could document the practice of warfare. Nevertheless, as a member of the community that I study, the idea of acting, thinking and participating like the rest of the community implies that I was able to get closer to the' meanings of warfare'. Hence I was mostly a 'participant', and my status as 'observer' became apparent to me after I had returned from the field and to recall and record my experience. But the experience of the moral evaluations of the good and bad aspect of Wahgi life is deeper than the actual field work. These are important moral and methodological problems, but the critical reflection they require will take us beyond the scope of this study. In the remainder of this introduction, I briefly outline the contents of each of the chapters of this thesis.

Contents

In the general or theoretical chapter on warfare (Chapter 1) I introduce some key problems and debates in the study of warfare. I approach this issue by briefly presenting two modern western phenomena - a fight between Punks in a Pub, and football-grounds violence - in anthropological and sociological terms. These examples show that violence and warfare can be understood from several perspectives, and that differences between the 'primitive' and the modern war are not that clear-cut. In both cases, there exist two main positions; one that sees warfare primarily in biological terms, and one that emphasises cultural aspects. Following numerous researchers, I reject simplistic biological explanations, and concentrate on those that incorporate culture and society in the study of warfare.

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The war, and the battlefields in which it occurs, are deeply entrenched in the landscape. In Chapter 2, I will argue that the Wahgi construction of their social landscape and their origin stories have direct links with their history and their wars. The basic philosophy in S. Wahgi is that people create their own environment out of the vast tracts of land inhabited by gods and the evil spirits. The planted landscape *(Omb kone)* is often seen as a mirror reflection of the invisible landscape of gods *(Kipe kone)*. The world of the gods is not a distant area, like heaven and earth, belonging to a separate bygone time but a past world actively part of living. The planted landscape refers to the altitude between 1700 m to 2000 m above sea level.

It is in this environment that the Wahgi retrace their origins. The histories of the founding ancestors do constantly refer to the landscape, its changes, and the activities that they carry out within it. I suggest that there is a relative chronology of warfare and it begins with the the 'time people came, stayed and became father of' an area and/or groups *(se danjip kunum)*. It is possible to link the origin stories with the introduction of sweet potato and the historical movements narrated in these stories account for the expansion of the 'Ka' people *(angka*; sweet potato people)] from 1600s to the present.

In this respect, it is important to note that (just like their western counterparts) the Wahgi are concerned with their heritage. Indeed, the Wahgi practice their own archaeology: They associate features of the landscape with past historical events, they preserve the location of ancestral sites and the relics of dead warriors, and they also engage in 'cultural resource management' by maintaining and planting trees at special localities that may be called 'living monuments'.

There are further aspects to the 'origin stories'. By retracing original deeds and enlightening present relations between groups, these stories can highlight 'root' causes of conflict and disharmony. This shows the extent to which Wahgi warfare is a moral and religious affair, and not simply the expression of an aggressive instinct or a response to resource scarcity.

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In introducing the central conceptions and practices of Wahgi warfare (Chapter 3) I will put particular emphasis on religious and symbolic aspects. My basic argument, whereby and the moral universe of the Wahgi society is culturally constructed was formulated before my major field expedition in the Wahgi Valley:

> The overall organisation of warfare is closely interwoven into the Wahgi belief system. Human beings are said to have a self-image (physical body) and a shadow image called *minmaan* (shadow-soul). When a person dies it is the shadow-soul that departs the physical body and enters the spirit world. The ancestors and or spirits are not ghosts but they are gods. The people create their own gods by transforming their own shadow soul-image *(minmaan)* into *Kipe,* fear them and worship them. Essentially, man ... maintains an ideology of equality, balance, reciprocity between man and the spirit world. Wrongdoings are punishable by *Kipe* and therefore that spiritual equality is duplicated in the ordinary world through a politics of reciprocity ... A threefold relationship between Man, *minmaan* (shadow-image) and *Kipe* (gods)..is the essence of war ... a ritualised social practice ... a religious one (Muke 1987: 8).

This proposition requires us to re-consider such terms as 'cult', 'worship', 'magico-religious beliefs', and 'ancestral spirit worship', when used from a western cultural perspective. One challenge is to find out whether such notions do actually denote the same range of actions and images that are familiar to the Wahgi people. After all, it can be expected (and demonstrated) that the nature of warfare, the ideological constructs that define what is violent or peaceful behaviour, and the participants' decisions as to what war means, is or ought to be are all unique, particular and historically specific.

The S. Wahgi define warfare as *opo kumbo*. These are two words which literally mean bow *(opo)* and protective walls *(kumbo)*. But the translation of the social practice is meaningless unless interpreted in relation to other aspects of the culture. On the one the bows are used as ofensive weapons but then on the other hand the bows form a partnership with the walls or shields. A wider cultural definition is required and warfare is defined as provocative *(opo yiu;* war talk) and protective socio-political strategies *(kumbo;* walls or barriers).

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I provide in Chapter 3 a model of the sequence of war, from initial peace to the end of hostilities. This enables me to introduce a range of terms and ideas which will be developed and clarified throughout this work. With this understanding, we will return in Chapter 8 to that actual conduct of war between the Konombka and Kondika in 1989-1990).

In the three chapters that follow (4, 5 and 6) I address the issues of genealogies, war marriages and group structure. The metaphor of the plant is proposed as a model of kinship relations among the Wahgi. The people think in terms of roots, stems, stocks and vines when they express their kin relations. Ideally, they conceptualise themselves as being planted by others. The structural sequences divide according to prescribed predictable principles based on a logic of plant growth, *Ka* (base, roots), *Kup* (shoots, sprouts), and *Kanem* (vines). When the group structure reaches the logical threshold of plant growth, the plant model is replaced with a succession of descent terms. The changes, normally at the lower group structural *(Kanem)* levels, stress (a) father-child relations, (b) the descendants of certain ancestral figures and (c) 'owners' of symbolic descent/kinship substances. Combined with the information provided in the origin stories, this model enables to identify structural exceptions and anomalies between contemporary groups. When a structural suffix idiom is not in its appropriate position, some changes must have occurred and explanation is required as to why is this group in 'the wrong place'. These structural disturbances reflect the history of warfare and migrations, and it is suggested that the plant which symbolically represents the *Ka* structure is no other than the sweet potato.

Structural duality and pairing is an important concept in S. Wahgi. Groups are paired as brothers or shadow brothers. Animals, trees and geographical features are named in pairs. Enemies are described as a pair *(opo yiem yiem*; bows have two parts to it) and allies are seen as pairs of the wings of a bird (O'Hanlon 1989:31, Norbeck

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1964:329). The range of paired social configurations are traced to the primary partnership between the physical self and the shadow-image. It stems from a single source: The *Kipe* (gods).

The act of procreation is described as the acting in union of paired entities (*se danjip*; they stay as pair but join to from an entity), in which the father's contribution seen as *min* and the mother's as *maan*. The shadow image is life and thought giving substance. At the time of death the earthly body returns to the other invisible word. A full life cycle of an individual is an outward manifestation of the inner spiritual harmony between the self and the spirits.

But warfare is not only a spiritual issue. My study of the material culture of warfare in the Wahgi Valley concentrates on the wooden fighting shields (Chapter 7). These object could have equivalents in archaeological assemblages (e.g, bronze shields), and I have submitted them to a straightforward dimensional analysis. This analysis did not show differences in technological and functional preferences among the various groups studied. On the other hand, the decorated aspects of the shields, the values that the carriers place on the individual items, and the performance of a group of shield carriers in display and physical combat demonstrate that Wahgi warfare has social and religious significances. The wooden fighting shields have an 'image' and they are seen as able to convey messages of 'war talk' more aggressively and effectively than other artefacts.

What a shield does in the battlefield is expected to have an effect on the audience in revealing the social and ideational defence capabilities; distorting past relations, ensuring new marriage patterns and legitimating territorial claims. The meanings of the colours and the designs on the wooden board are complex. A detailed design analysis condenses them into three main forms; triangle, circle and rectangle. They relate to structural divisions such as top, middle and bottom, inside/outside,

closeness/openness and private/public. Moreover, these shapes link to the formation of shields during combat; a triangular shield formation indicates an advancing position, circles indicate rituals for the dead warrior and rectangles represent open displays. Also colours and shapes communicate to the audience. Rectangles appear at the bottom part of the shield and are painted black. A rectangle as a cultural form reveals, associates with openness and represents avenues for public affairs such as the ceremonial ground and battlefield. Red colour is associated with religious aspects of Wahgi culture. The red colour often pairs with round shapes on the wooden boards. Triangle shapes do not seem to pair with a colour but the shape represents combat formations. I have devised an 8 types typology of the Wahgi wooden shields, which I illustrate in several colour plates.

I have witnessed the actual use of these shields in 1989 - 1990, when the Konombka and the Kondika finally engaged in their long-planned war. In Chapter 8 I discuss the causes of this war and the ways it was initiated. I then follow the warriors to the battlefields, and document the sequence of attack and counter-attacks, of victories and failures. I have felt during this war that this kind of documentation may well be the last of its kind: not because warfare will disappear, but rather because the recent introduction of firearms - and the unprecedented level of death and destruction that they cause - will bring the traditional social activity of Wahgi warfare much closer to western standards.

Chapter 1. On war

Introduction

I provide in this chapter a general discussion of warfare, its definitions and its explanations. Two broad understandings of war are presented: as a biological phenomenon and as a cultural phenomenon. Within the latter view, two further approaches are singled out - those that see warfare in ecological and functionalist terms, and those that emphasize the social and ideological components of warfare. I start with a discussion of some aspects of violence in contemporary Britain; within Punk sub-culture and between rival football gangs. Although remote from the highlands of New Guinea, such incidents as described here in the imaginary Pub or football riot offer the same sorts of problems for the recorder and the analyst as does Wahgi warfare. While violence in modern industrial Britain has different origins and causes than warfare in small-scale societies like the Wahgi Valley, this particular analogy appears more valid than one drawn from modern `high - tech' warfare.

As will be seen, many of the methods and much of the terminology used to study violence in modern Britain have been and still are being use in describing and explaining New Guinea Highlands warfare. More importantly, in both regions the 'warfare' (or whatever one calls it) has a history- it is as much rooted in the past as in the contemporary situation. But unlike the wealth of available documents and historical records in modern Britain, the only access to the past in the Wahgi Valley (apart from the limited archaeological evidence) is through the people themselves and their own views on warfare. Quite often the beliefs, values and reasons for warfare among small-scale societies do not correspond to the models employed by ethnographers or military analysts.

Moreover, when the actors in such warfare, the indigenous people, are unfamiliar with and lack access to the views and terminologies of the external scholars of their own warfare, it is difficult to make comparisons between their own philosophies on the nature of warfare and those derived from external models. So far, the dominant influence of Western theoretical models necessarily puts words into the mouths of illiterate communities, including those of the S. Wahgi Valley.

A pub brawl: the Punk Culture.

Let us imagine an incident involving 'violent' behaviour in a pub. The participants, clearly identified by their clothes and hair styles are 'Punks', and the bystanders in the crowded bar include not only members of the general public, but also, being in Cambridge, a number of academics. As could be expected, each of these witnesses including the participants have different views on the nature of the conflict, its causes, social implications and so forth. Let us review these different perspectives.

For the police called in after the fight, this was simply an incident in which 'illegitimate or unacceptable infliction of bodily harm on another individual took place' (Riches 1986:1, Groebel & Hinde 1989:4).

To the regular pub drinkers, the special outfits of the fighters (heavy boots, safety pins, short coloured hair, and attached Swastika and Iron Cross on their leather jackets) and their special language would have been striking, and would have affected their recollections more than the details of the fight itself. They would have probably failed to notice or comment on the following facts: (a) the space between the two tables was a social boundary; the central open space in which group interaction took place; (b) when the two ring leaders stepped into the public arena, held each other's body and attempted to 'tactically manoeuvre' (Rapoport 1968:101) each other on to the floor, it was a kind of 'pre-emptive competition' ; (c) while the two leaders fought in the battle

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arena it was an 'attempt to compel one to bend to the will of the other' and (d) that it was in addition, a 'duel', not unlike 'primitive warfare'.

The views of the general public would probably reflect their personal and group hostility towards the punks. An anthropologist who, as a 'participant observer' had been the only one present who had actually spoken to any of the Punks, immediately identified some of the behaviour as being of a ritual nature. He considered the incident as normal, part of the machinery integral to the structure of the society to settle disputes and promote its ongoing function.

To the social worker present, in contrast, the behaviour was anti-social and aberrant. As in the case of the retired missionary who sat in the corner, shrinking from the violence, such behaviour was to the social worker a 'social problem' which had to be solved. Their views on the incident were strongly influenced by their professional beliefs about 'normal behaviour' and by their urge to reform or 'convert'. Thus the incident was a professional challenge and they may have failed to notice that some of the participants wore crucifixes; that none were under-nourished or showed signs of physical deprivation; and that, apart from their clothes and behaviour, they were healthy normal individuals.

The sociologist in the room, aware that such fights were regularly recorded, sought explanation in his tables of statistics and attempted to discover in this incident a pattern of age, wage or class, according to the categories of his discipline. Being so committed to numbers he too, like the social worker, failed to notice that some of the Punks had educated accents and not all of them were teenagers. He assumed, as did most of the other witnesses (and without a shred of proof) that they were all unemployed and on the dole.

The pub historian, for his part, was an old fashioned Marxist and saw the incident as no more than reflecting the eternal 'class struggle'. To him, the incident was not anti-social but rather an example of the suppression of the masses. It did not

necessitate repression or reform but rather redirection into a politically constructive form. In contrast to the others present his views were mildly approving, as he saw the brawl merely as part of the long term struggle towards a classless society.

A cynical ethologist present saw the incident as a confirmation of the genetically determined aggressive drive found in all animals. His companion, a psychologist, concentrated on the individual behaviour of some of the participants and failed to notice the regulated and ritual like aspects of performances which the anthropologist clearly saw.

The stray archaeologist in the pub, lastly, paid particular attention to the material elements, the special clothes, hair styles and decorative items of those involved in the fight. He recognised these symbols as an identification with the past. He might even have recalled the analysis carried out by Hodder (1982a) on the emergence of sub-cultures in the post-war period. The Punks, in the 1970s, reacted against the 'Jesus freaks' or 'hippies' (Hodder 1982a:203). They developed jerky, monotonous and cruel music, which emphasised the dole-queues, boredom, urban violence and perversity. They were 'into' aggression and violence, using symbols of the past such as Nazis bringing the past and the present together to provide different meanings. The Iron Cross and Swastika were seen by those who had participated in World War II, with contempt and hatred, when such symbols reminded them of their former war enemy.

It was about violence. The Punks took things out of their order, breaking down existing meanings, coherence, consensus and social solidarity. The body art work and personal adornment were deliberate attempts to turn normal things inside out and upside down. The punks, as Hodder says, "were involved in style archaeology digging up styles and fashions from recent decades" (ibid:207).

The fighting participants themselves, were they able to know the variety of views expressed about the pub incident, would have found some agreement with the archaeologist. Following the constant ministrations and the propaganda of the press,

they were able to excuse their own behaviour for reasons of poverty, deprivation, class pressure and the like. Their immediate concerns were with past incidents, insults and revenge for real or imaginary wrongs involving the other Punk group. Within the Punk culture their fight was normal, their aggression justifiable and their clothes identified the different social rules in which they operated. They viewed their behaviour as legitimate, as a response to a breach of rules within the normative values of the Punk culture.

To amplify the capacity of this imaginary modern incident to introduce some of the theoretical problems of warfare in the New Guinea Highlands, let us take a look at the well-known phenomenon of football violence.

The soccer tribes; rival football gangs. Sport activities can be (ought to be) seen as an ideal form for channelling human aggression (McCauley 1990:2, Goldstien 1989:10-11). The emergence of 'soccer tribes' or football hooliganism has drawn the attention of various authorities and social scientists who consider this phenomenon to be a 'social problem' and who propose remedies to what is often labelled as the 'English disease' (Dunning, Murphy & William 1986:165-166). Some essential features discussed by Dunning and others show remarkable parallels (which express parallel ideas often read in) with anthropological descriptions of primitive warfare. A few relevant points are noted here.

The complex network of football gang rivalries is organised into segments, quite similar to the 'segmentary lineages systems' of kinship societies (ibid.174). Some of them include the 'Inner City Firm ' at West Ham; the 'Service Crew' at Leeds; the 'Anti-Personnel Firm' at Chelsea; the 'Gooners' at Arsenal; the 'Bushwackers' at Millwall; the 'Main Line Crews' from Manchester (p.186). There are other 'soccer tribes' (Harrison 1974) throughout the country as well as abroad. The level of social

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complexity and institutionalised organisational patterns varies according to the size of the groups and the status of the football clubs.

These groups are territorial, and the territorial rivalry between them extends to discos, pubs and clubs. The gangs identify themselves with a particular local community and a football club. Sometimes depending on the fame, social status and size of the groups, they recruit individuals beyond the immediate boundaries. Internal rivalry is often submerged and solidarity is fostered when faced with territorial groups from other regions. Confrontation involves hand to hand fights and use of lethal weapons. Sometimes projectiles are used at the football ground. The participants described as the 'hard core' view fighting and behaving aggressively as an integral 'part of going to the match' (Dunning et al 1986:168). The activities of the largest groups are dominated

> by a relatively small number of young adult males who are locally celebrated on account of their toughness, their ability as strategists and their capability of organising the action and above all, because of their proven ability as fighters (ibid).

Swearing, boisterous behaviour, songs and chants are 'a feature of inter-fan - group rivalry, especially inside the stadia', and pitch invasion is a deliberately engineered tactic: It is used to halt a match or to infiltrate the territory of the rival and to start a fight. Successful invasion of the field is regarded as 'taking somebody else's end' (the rival ends of the football pitch). In a more general summary Riches says

> the British football hooligan engaged in fighting against a rival group of fans offers to his own group a statement about his own worth as an associate, to the rival group a statement about his own group's political and social capabilities, and to the watching middle classes a 'sceptical' view of working-class opinions about middle-class values (1986:25).

Defining Warfare

There are a variety of views about violence, aggression and war-like behaviour. The above speculative descriptions of different reactions to violence in the Cambridge

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pub and football are similar to the diversity of views about warfare in any small-scale society. Professional and/or personal views influence observation, description, recollection and explanation. Likewise, the examples introduced some of the vocabulary used in the ethnographic descriptions of primitive warfare. To anyone versed in the literature on primitive warfare, the words, phrases and much of the commentaries used to describe football violence have a familiar ring. The terms used in the anthropological literature to describe warfare include (a) ritualised warfare, (b) legitimate actions, (c) use of lethal weapons, (d) social and territorial boundaries defining sovereign actions, and (e) the interpretation of such actions by non-participants as extreme forms of anti-social behaviour.

While the rival football gang fights and Punk style wars may only be seen as illegitimate behaviour, mostly by those who believe they represent the views of the majority of the British culture, the same sorts of acts and images seen in non-industrialised small-scale societies are said to look like violence and aggression and are often labelled 'primitive warfare'. It is the case, however, that there are divergent views among different individuals or professions (even within the western world) as to what is it that constitutes aggression, violence and warfare. With this fact in mind, I review some of the difficulties associated with the definitions of war.

Problem 1. Definitions: Anthropology and Archaeology. In anthropology, Ferguson provides a list of attributes associated with warfare among primitive societies. He states that

> the basic underlying phenomena characteristic of war can be described as follows: organised, purposeful group action, directed against another similar action, involving the actual or potential application of lethal force (1984:5, 1988:26).

Carniero (1967) defined warfare as a subset of human aggression involving the use of organised force between politically independent groups. Livingstone (1965) regards it as an intergroup aggression. Wallace (1967:19) described it as 'the sanctioned

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use of lethal weapons by members of one society against another'. Narroll (1964, 1966) defined warfare as 'public lethal group combat between territorial units'. Most scholars agree that warfare is a corporate activity and carried out by political units (Lowell 1988:8, Otterbein 1968:278, Nettleship 1975, Wedgewood 1930).

The archaeological study of warfare will be the topic of a later discussion. For the moment, it can be pointed out that archaeologists must have an acceptable working definition and it includes the use of lethal weapons, an essential component in archaeological studies. They are generally concerned with the military organisation of warfare and they try, from a technological position, to reconstruct the underlying ideas that led to physical confrontation. The remains of war essentially demonstrate the consequences of the practice of war. The material record may show a campaign that went wrong and contrariwise a victory for the opponents' groups.

However, archaeological definitions of warfare remain problematic. Ferril (1985), who sought to extend warfare into the 'darkness of prehistory', proposed that organised warfare involves formation. When "warriors are put as a team into the field under a commander or leader rather than as bands of leaderless heros they have crossed the line from primitive to true or organised warfare" (ibid:11). His reference to military formation and organisation exposes another area of ambiguity: the distinction between the origins of primitive and modern or civilised warfare.

Admittedly, many of the wars in small-scale societies like the S. Wahgi can be correctly labelled as technologically primitive. The range of weapon technology has been a subject of early ethnographic studies in New Guinea (Rivers 1914, Haddon 1908, 1910,1912,1923, Aufenanger 1954, 1975, Strathern & Strathern 1972, Sillitoe 1980, 1988). Also the military conduct of warfare is described as very basic and simple. Turney-High (1971) argued that primitive societies lack tactical operations, command and control. They lack specialized tools and troops. They lack ability to conduct campaigns and organisation of the resources for the campaigns. They are not motivated

by clear aims of subjugation of the enemy (cf Hallpike 1988:102-104). However, the distinction between modern and primitive warfare becomes less obvious when the military horizon is extended beyond its own practical boundaries to include economics, social, value systems, religion and politics. These issues are part of the ideas of warfare.

Problem 2. Sovereign states. In the highlands the data on the ideas of warfare are particularly rich but they derive mainly from western intellectual contributions. This becomes clear when one considers the conduct of war as an activity that occurs between sovereign or autonomous political institutions. This is another area of ambiguity. According to Nettleship (1973) 'primitive societies are not sovereign states'. They "lack formal force and their fighting is of inconsiderable magnitude and of especially brief duration" (p.83). But many definitions of primitive warfare run along the same parameters as the descriptions of the European sovereign state systems. Particularly, how the sovereigns functioned "before Napoleon broke the military rules of civilised warfare" (A. Rapoport 1968:23).

For Melanesia in general, Malinowski defined primitive warfare as "an armed contest between two independent political units, by means of organised military force, in pursuit of tribal or national policy" (1964:286. 1920, 1941). Wedgewood (1930) claimed that warfare strengthened the bonds of individuals within the group and made them increasingly conscious that they were members of the same unit (p. 6). She emphasised that there would be internal rivalry, disputes and disharmony, however if the community was faced by other political units, the internal differences were forgotten and a formidable force would be formed to face the opponents. Enemies became friends and later enemies again (Mead 1968, Fortune 1947, Brown 1964).

For the New Guinea highlands regions, Brendt (1964:183) defined warfare as "planned violence carried out by members of a political unit in the name of that unit against another" and "fighting between units was widely regarded in principle as right

and proper". Meggitt (1977:10) defined warfare as "a state or period of armed hostility existing between politically autonomous communities, which at such times regard the actions (violent or otherwise) of their members against their opponents as legitimate expression of the sovereign policy of the community". Knauff (1990:251) defined warfare as "collective armed conflict between putatively autonomous political groups". Sillitoe (1978:252) noted that warfare was "a relationship of mutual hostility between two groups where both try by armed force to secure some gain at the other's expense".

By comparison to western ideas on war, in the translation of Clausewitz' political philosophy of war, Anatol Rapoport indicates that Clausewitz defined war among the European sovereign states as "a rational instrument of national policy" (1968:13) or "war is nothing but a continuation of political intercourse, with a mixture of other means" (Fuller 1972:64). The sovereign states were considered as the actors in internal relations. Decisions to wage war and to conclude peace were made by sovereign states. War was "a duel on an extensive scale" and "a struggle between two wrestlers" (Fuller 1972:61). All the states had clear notions about the uniform standards of aesthetics and protocol. The sovereign interests and ambitions "were stated fairly simply in terms of territorial gains and losses, alliances honoured or broken, rises or falls in prestige etc, all measured by standards which were rather uniform among the society of sovereigns" (Rapoport 1968:18).

It would seem however that warfare in S. Wahgi is quite distinct from that practised by European sovereign states. Despite that, it is taken for granted that war is a normal state of existence for primitive communities who have no overarching authority to prevent warfare (Ferguson 1984, Hallpike 1988:112, Modjeska 1982:44, Langness 1972a). But all sovereign states or autonomous political units do not have overarching authorities and when their interests are threatened they will go to war at whatever cost, even when neutral mediator groups act as go-between for the protagonists. I mention in passing the staging of the Gulf war in 1991 which was carried out in the interest of the

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protection of the sovereign states. But it was a coalition of a number of sovereign states against another state. There was no overarching authority. It would be difficult to limit such models to small-scale societies. At least theoretically, all sovereign institutions can make war because there are no third party institutions above them to prevent such actions.

It might be then that the analogy of pre-Napoleonic wars, as a form of 'civilised warfare', is more valid to Wahgi warfare than the origins and cause of violence in football hooliganism, or the 'aggressive style wars' displayed by the Punk culture in Britain.

Problem 3. Ritual warfare. Even so, the highlands political systems are described as stateless, acephalous, pre-state, or without centralised authority. As a consequence, the term 'primitive warfare' is often used in conjunction with that of 'ritual warfare'. In fact, 'Central Wahgi warfare' is classified by anthropologists as rule-governed, restricted, regulated and formalised (Sillitoe 1977, Feil 1987). In contrast, in other regions like the eastern highlands, the highlands fringe and the coastal area, the patterns of warfare are described as unrestricted, pervasive, perpetual, permanent, including the use of excessive or unrestrained forms of violence (Langness 1972a, Knauff 1989, 1990, Morren 1984, Herdt 1986, Brown 1986). The vocabulary of warfare also includes graphic descriptions such as cannibalism, headhunting, blood thirsty, aggressive, quarrelsome, belligerent, hostile, competitive, violent and above all primitive (Reay 1959:159, Brown 1972, Barnes 1962, Morren 1986, Hallpike 1977, Zegwaard 1968).

On the whole, however, written reports in which such terms are used demonstrate links between warfare and ancestral worship. It is believed that the ancestral spirits intervene in all matters of war organisation. The pre-fight sacrifices involve the appeasing of spirits (Vayda 1968, 1989). The termination of war requires

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the blessing of the ancestral ghosts (Rappaport 1967:144). Abandoned land cannot be immediately taken due to the presence of the spirits (Reay 1959, Sillitoe 1980). A defeated group usually retreats to the cemetery-burial place as the last stronghold (Strathern 1971).

The weakness, of course, is that the 'indigenous theory concerning interpersonal and intersocietial practices which give rise to warfare' (Howell & Willis 1989:7) rarely comes to the centre of discussion. Any attempts to understand warfare in S. Wahgi require the analysis of the meanings of such terms as ritualised, rule-governed, formalised, restrictive warfare, the rules of conduct associated with cult objects, attitudes towards death and revenge procedures (Langness 1972a:931, Brendt 1964, Sillitoe 1980, Brown & Podolefsky 1976, Strathern A. 1981, Feil 1979). However, the ritual practices associated with warfare are often viewed in the same manner as the attitudes towards a social disease. Although ritual may be seen as formal and repetitive practice (Lewis 1980, Fortes 1987, Rappaport 1967, Harrison 1989) it is generally perceived to be 'odd' and 'abnormal'. In archaeology Hodder says

> there is a danger that anything we find odd is labelled ritual. Since most western archaeologists are white and have comfortable middle-class backgrounds their views as to what is odd are likely to be similar and particular to their own context (1982a:196).

This view may reflect the same attitude and educational background of researchers in anthropology. It is difficult to distinguished ritualised from non-ritualised warfare (Feil 1987, Knauff 1990) and it possible that the term ritual is used as a substitute for social organisations which do not have centralised authority. For instance, Roy Rappaport argues that in 'the absence of authoritative political statuses or offices, the ritual cycle likewise provides the people a means for mobilising allies when warfare may be undertaken' (1979:28).

My analysis of warfare will therefore explore the effects of underlying ideologies and ritual practices on the internal constitution of S. Wahgi society. S. Wahgi warfare has religious meanings, and the complex connections that unite the

social landscape, the foundation stories and the group structures to these religious beliefs will be a major subject of discussion in this work.

Explanations of warfare

In this section I assess some general explanations of warfare. There are two basic positions for explaining warfare (Harrison 1972:3). One line of argument suggests that warfare has a biological base. Human beings are passive agents reacting to forces entirely external to individual purposes, culturally and reflectively constituted goals. The second premise takes the opposite view. Warfare is culturally constructed or a social phenomena (Willis & Howell 1989). Within these boundaries there are overlaps and cross-cutting ties. The changes to theoretical positions are influenced by conditions outside the intellectual disciplinary divisions and some of the theories are contemporaneous with the theories that were popular at the time of the writing (Ferguson & Farrager 1988).

Warfare and Aggression. Most definitions of warfare include the idea of aggressive behaviour. Often warfare is a subset or special type of aggression. It involves aggression between groups in which individuals are in some degree organised towards the common goals (Groebel & Hinde 1989:5, Hinde 1987:8, Montagu 1971:14). Hinde notes that at least four types of aggression have been recognised among children: "instrumental aggression, directed towards securing some object or thing; hostile or teasing aggression, with or without such objective; defensive aggression appearing in response to an attack; and game aggression; rough-and-tumble play" (1987:7). According to Hinde, adult aggressive behaviour is even more diverse, including instrumental or planned aggression, emotional aggression; felonious aggression committed in the course of another crime; bizarre or psychopathic violence;

and dyssocial violence, approved of by the reference group (p.8. see also Berkowitz 1989:92-100, McCauley 1990:17-20). The diversity of aggression among humans reflect a more complex pattern of aggressive behaviour than among animal populations. But some sciences, specifically the contributions from biology, ethology, psychoanalytic theories and sociobiology have drawn freely on the particular behaviour of animals to popularise some controversial conceptions about aggression and warfare. The common descriptive terminologies include intraspecific aggression, arousal mechanisms, territorial imperatives, killer instinct, innate behaviour, frustration, aggression, inclusive fitness, cultural selection and so forth

Among these concepts, that of man with the 'killer instinct' has found strong appeal. This concept has a long history (see critique Montagu 1971,1976) and already at the beginning of this century James (1910) wrote "Our ancestors have bred pugnacity into our bone and marrow, and thousands of years of peace won't breed it out of us" (1964:23). In similar circumstance, McDougal, a psychologist, drew available data from primitive societies in Oceania and argued that the instinct of aggression can be instigated by some frustrating conditions. As regards tribal warfare, he said "This perpetual warfare, like the squabbles of a roomful of quarrelsome children, seems to be almost wholly and directly due to the uncomplicated operation of the instinct of pugnacity" (1964: 34).

Konrad Lorenz (1964, 1966) one of the founders of the modern science of animal behaviour, contended that warfare was rooted in our animal past and product of a genetically transmitted behaviour. He argued that the instinct drive was independent to external stimuli. The drive-discharge process is the basis of all human violence. The instinctive aggressive drive generates energy and is discharged by an appropriate releaser (Feshbach 1989:82). The killer instinct is inherited from the ancestors, during the hunter-gatherer life in which there was an innate impulse to compete for resources and safeguard one species from other predators (Divale 1970:39, Nettleship 1975,

Ardrey 1961, 1966, 1970, Murphy 1957, Dollard et al. 1939). Lorenz argued that 'intrapsychic aggression is, in man, just as much a spontaneous instinctive drive as in most other higher vertebrates' (1964:49). After humans reached social organisation (inventing weapons and clothing) they turned against each other. Lorenz argued that 'the influencing selection factor was now the wars waged between hostile neighbouring tribes'.

The killer instinct in man may have been inhibited through evolutionary progress and the advent of civilisation. But warfare remains unavoidable because of the inborn drive to satisfy the aggressive energy. The implication was that the innate aggressive energy ought to be released through controlled and substitute activities such as football and the World Olympic games (Halloway 1968:31). Otherwise, so the argument goes, it would be eventually released through inappropriate means. Thus extreme acts of violence, such as football hooliganism, Punk violence and war are seen as an expression of the killer instinct in man (Goldstein 1989:80, Ferguson 1984:3, Feshbach 1989:80).

Some of the researchers in the highlands viewed warfare as innate behaviour. Among the S. Wahgi people Reay said warfare is "valued for its own sake, and it expresses the aggressive attitude men admire but cannot indulge to any extent within the community" (Reay 1959:159). Similarly among the Chimbu Brown (1972) noted that 'fighting was part of aboriginal life'. Barnes (1962:128) said "disorder and irregularity of social life in the Highlands ... is due to the high value placed on killing". Hallpike (1977) described the Tauade as a population "who killed, and still do kill for the pleasure of killing" (p. 7) and "their enjoyment of destruction for its own sake confirm them as savage men in the group of a collective obsession with blood and death" (p. 250, p. 253, also see Hallpike 1986:113). Morren (1984:170), a specialist on the Miyanmin people of Mountain Ok, says that "materialists cannot avoid the age old

question why any person of sound mind would participate in such perilous and horrible activity". I shall return to aggression, sociobiology and cultural selection later.

Psychology and warfare. The problem of the individual versus group behaviour remains sensitive. However, contributions from psychological studies towards aggression and violence have been used widely in recent years to explain highlands warfare. The view is that the biological and evolutionary background enables us to understand aspects of group cooperation in warfare, but aggression often emanates from the internal states of individual or psychological tension as well as pervasive cultural values (Turney-High 1971, Mead 1961, Hallpike 1977, Koch 1974, Heider 1979).

Freud's psychological (1961) conception of aggressive anger as a form of death instinct turned outwards may not have been widely used to explain warfare. But the recognition of the deep ambivalence that characterises the relationship between members of family units has been given additional meaning in the New Guinea highlands. Here the emphasis is towards sexual segregation and pervasive male initiation rites. Koch (1974) for instance, emphasizes the importance of early childhood training among the Jalemo people. He states that the pervasive male-female separation of the sexes in public and ritual life accounts for the development of 'protest masculinity' (p. 71). He refers to the relationship between child-training and personality studies in Japan, the Philippines, India, Kenya, Mexico and New England conducted by Whiting (1965). The term 'protest masculinity' would mean a psychodynamic circle,

> in which the separation of the sexes leads to a conflict of identity between men and women, to unconscious fear of being feminine, which leads to 'protest masculinity', exaggeration of the difference between men and women, antagonism against and fear of women, male solidarity, and hence to isolation of women and very young children (Koch 1974:171).

Recent studies provide additional support that New Guinea highland societies are characterised by 'high levels of male aggression' and that gender specific violence is

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inherent in the male initiation process (Brown & Schuster 1986:158, Herdt 1986). The studies of identity transformation of individual men through secret initiation cults, gender antagonism and eroticism in aggression are a few of the complex psychocultural dimensions of conflicts and collective violence covered extensively by Herdt on the Sambia people (1987, Herdt & Stoller 1990). Individual aggression has also been said to associate with the role of the self-made leaders or bigmen (Sillitoe 1980). Brown (1986) says that aggressive behaviour among men is admired and favoured by the Chimbu people. She states that the "socialisation of men for aggression in intergroup relations, and persuasive influence of aggressive group leaders (bigmen) are the active forces in warfare" (ibid:165).

Frustration and Aggression. A further approach in psychology is the combination of the innatist arguments with frustration theory. Aggression is interpreted as a 'consequence of frustration and a manifestation of an aggressive instinct' (Feshbach S. 1989:83). This led to the formulation of the frustration-aggression theory (Dollard et al 1939). It is one of the most popular models applied to highlands warfare but basically it is a form of biological determinism (Robarchek 1989:904, 1977). The basic model is that "a frustrating event increases the probability that the thwarted organism will act aggressively soon afterwards and that the relationship exists in many animal species, including man" (Berkowitz 1962:2). In the anthropology of the Melanesian regions, the combination of the frustration-aggression theory with paternal interest group theory is clearly reflected in the earliest and most comprehensive review of warfare on Melanesia by Wedgewood. She said that wars

> centred upon when the community has in some way suffered and needed some other people on whom to vent its anger for the injury which it received. The expression of this anger, in fighting, relieved it; the discomfort and irritation which was disquieting the community was brought to an end and thus, a sense of well being was restored (1930:33).

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Another idea, less explicitly stated, is that warfare was endemic in the past but that since the colonial pacification period the aggressive energy which would have accumulated and been directed towards warfare is now diverted to much milder, controlled forms of competitive activities such as the Moka exchange schemes (Strathern 1971, 1982, 1984). "Ceremonial exchange rather than killing is a way of asserting individual prowess in Melpa society" (Strathern 1971:54, also Sillitoe 1978, Feil 1987:64). This explanation of warfare almost echoes the killer instinct view, that alternative ways were developed to filter the genetically induced aggressive behaviour. Furthermore, in the most extensive recent review on theories of Melanesian warfare, Knauff draws attention to the works of Koch (1974) and Brendt (1964). His summary of the existing interpretation states

> Conflict flares like lighting of match- box tinder, easily escalates to lethal violence, and results in seemingly interminable chains of reciprocal retaliation and blood revenge. The potential for violence permeates all but the closest kinship relations, and there is a palpable ethos of preemptive if not hair-trigger aggression marked by both bravado and deep underlying fear (1990:266).

Other experimental studies of childhood developments and controlled studies of the aggressive behaviour of animals are used as clues to explaining human aggression (Karli 1983, Maccoby & Jacklin 1972, Herbert 1986:59-71). However, as Bateson points out, innate means 'present at birth' and it 'usually does carry a strong implication that the behaviour springs from the individual' (1989:40). In contrast warfare is a social affair and involves a complex set of individual corporation and interaction.

Ironically, returning to the Pub analogy, the state's determination to isolate individuals and to punish individuals for antisocial and violent behaviour, stems from the belief that; (a) 'the cause of human violence exists within the individual'; (b) 'if psychiatrists, psychologists, and biologists were only clever enough they could identify the genetic or personality factors that give rise to violent behaviour'; (c) 'it is assumed to be at least theoretically possible to identify potential offenders before they ever commit an offence by using some sort of bio-genetic or psychological screening

procedure' (Goldstein 1989:16). Goldstein states that the assumptions of individual aggression are commonly employed by many psychologists, psychiatrists, anthropologists and other scientists. He argues that hard evidence for such a genetically determined model is lacking. The implications of such 'reductionist' emphasis on aggression and violence, as Golstein says, is an attempt

> to separate ourselves in a tangible way from those whose behaviour we deplore. We feel comfortable, satisfied, and relatively safe knowing that we do not possess the disease of antisocial behaviour... We have seen our enemies - whoever they may be at the moment - portrayed as inherently, evil, primitive and irrational (1989:17).

There are certainly biological bases for human aggression. The physical and physiological features are inherited, and it is important to point out that the behavioural tendencies are limited by what is biologically possible. For instance, there is some correlation between the biochemical changes of the nervous systems during episodic and chronic violent behaviour. The production of hormones such as ACTH, adrenalin, testosterone, and androgenic are considered to be responsible for aggressive behaviour (Valzelli 1981, Herbert 1986:61-63, Schuter & Brown 1986:155).

Harris (1984:112) criticises the inclusive fitness model and says that 'culture is encoded in the brain, not in genes. Because cultural encoding takes place in the brain, cultural selection does not involve, except in rare instances, feedback to the genome by means of differential reproductive success'. There are others who agree that, throughout history, some members of species have suppressed violent behaviour and some have changed from warlike to peaceful communities (McCauley 1990:2). Warfare has been suppressed in New Guinea highlands but it has emerged again. Meanwhile in the coastal area the practice is almost forgotten. These are other tribal groups which are considered as non-violent (Harrison 1973:8, Howell & Willis 1989). For example, Semai people are classified as non-violent (Robarchek 1977, 1989,1990). Robarchek says

> we take people seriously, not as biological beings in ecological contexts, but also as human beings in sociocultural contexts, deriving their humanity from systems

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of meanings, of values and beliefs, of symbols and significations that many anthropologists call "culture" (1989:903, also 1990:63).

On the whole in a recent statement on aggression and war, a number of leading scientists issued a statement that it is 'scientifically incorrect' to say (a) 'that we have inherited a tendency to make war from our animal species', (b) that, 'violent behaviour is genetically programmed', (c) that 'in the course of human evolution there has been a selection for aggressive behaviour more than other kinds of behaviour', (d) that 'humans have violent brains', and (e) that 'war is caused by instinctive or any single motivation' (Groebel & R. A. Hinde 1989: XIII-XV). The conclusion then is that biology alone cannot explain the phenomenon of warfare, and nor can it condemn humanity to war.

Anthropological views of warfare

There are a wide range of theoretical models for explaining the social dimensions of warfare. Most anthropological approaches and sub disciplines take a position opposite to the killer instinct view and advocate that warfare is not inherent in the human genes, but rather a social affair that can be understood in terms of socio-cultural conditions. The basic underlying formula usually relates to the assumption that imbalances occur within the society or between the society and external forces. These include imbalances in land/man ratios, man/woman, man/animal, imbalances in access to resources conditioned by geographical locations, difference of social stratification and belief systems.

The different anthropological models used to describe and explain New Guinea highlands warfare cluster into either the 'cultural-ecological-materialist camp' or the 'social-cultural camp' (Meggitt & Gordon 1985:8). The resulting ethnographic descriptions often follow a pattern somewhat similar in substance to the extreme examples of the Punk sub-culture and football tribes in contemporary Britain.

Structures and functions. I will begin with the structural-functionalist approach to warfare. The functionalist model has a long tradition in Western sociological thought, and often stems from the concerns of influential nineteenth century thinkers which were directed towards conditions fostering order, meaning and coherence in human group life. Sociological theories placed emphasis on social relationship, which largely postulated that individual's interaction among themselves became the prime cause of social life. Maximisation of relations maintained social order, and this was related to the existence and propagation of common beliefs, which in turn created a society; conceived of as a totality of social relations between individuals (Wolf 1982:2).

Societies reach a healthy organic equilibrium (homoeostasis) but maladaptation causes pathologies. Internal and external adjustment would allow the system's maintainence, through processes which include (1) adjustment to physical environment, (2) adjustment to components of the society and (3) how individuals adjust themselves in the society.

Functionalist anthropology considers the society's adjustment to component units and was the central idea in the understanding of social control in primitive societies. Though warfare may result from a breakdown of social cohesion, it was viewed as 'possessing survival value'. The functions of warfare would be seen as maintaining, intensifying or destroying the patterns of societal relations (Bramson & Goethal 1964:199). Warfare is often described as the common element of social pathology. This analogy is more clear in modern warfare. For instance Major-General J.F. C. Fuller in his preface to 'The Conduct of War 1789-1961' says

> The conduct of war, like the practice of medicine, is an art, and because the aim of the physicians and surgeon is to prevent, cure, or alleviate the diseases of the human body, so should the aim of statesman and soldier be to prevent, cure, alleviate the wars which inflict the international body (1972:11).

The international body could be anything from tribal groups, sovereign states or the international coalitions such as the recent allied forces in the Middle East. The political speeches of the President of the United States asserted that it was a war of 'good forces' set 'against evil forces'. The evil forces ought to be eliminated to uphold the functional unity of the entire universe.

In S. Wahgi, Reay (1959) followed the structural-functionalist approach. Her conclusion reflects the Durkheimian view of social cohesion and group solidarity. Reay considered that 'ingroup altruism' was an ideal of clan solidarity and dominance, and, to the outsiders, the 'we group sentiment' was inversed into 'aggressive group egoism' (p.191).

The main line of social-structuralists approaches sought the underlying structural mechanisms of warfare. Conflict, stress and cohesion were part of the coherent functioning of the acephalous patrilineal societies. Polygeny, patrilocal residence, and lack of centralised political systems account for the presence or absence of internal harmony (van Vezen & van Wetering 1960, Otterbein & Otterbein 1965, Nayak 1989:8). Paternal interest groups are said to associate with segmentary patrilineal systems.

Meggitt's study of the Mae-Enga provided a systematic argument on the correlation between population density, strong agnatic decent systems and types of warfare (1965, 1971). Groups vary in size and the differential levels of segmentary lineage organisation correspond with different types of warfare. There are detailed correlations between high population density, the emergence of strong bonded polities, the intensity of fighting and scarce resources. A number of reviews dealing with warfare, land shortages and socio-political developments are available (Sillitoe 1978, Brown 1979, Golson & Gardner 1990, Feil 1986, Knauff 1990, Langness 1972b). I discuss some aspects in relation to archaeological approaches to warfare later.

The political explanation of warfare is mainly directed towards the role of big men and the absence of effective conflict resolving mechanisms. Sillitoe (1978) advocated that warfare is caused by bigmen "who struggle to maintain their unstable leadership by inducing their followers to fight wars which will weaken their rivals' communities and so diminish threats of their hegemony" (p. 252). The lack of emphasis on political strategies of those who are not big men makes one wonder why the bigmen are singled out as a topic of interest. Koch (1974) demonstrates in the analysis of Jalemo warfare that there is an absence of political institutions for dealing with warfare. These include absence of cross-cutting affiliative ties, the lack of third party authorities to mediate disputes and a particular process of socialisation which emphasises masculine aggression. Koch's emphasis on some aspects of the psychological nature of warfare were discussed earlier.

Adaptive functions of warfare. The ecological functionalist approach was concerned with the adjustment of the society to the physical environment. The cornerstone for an environmentally based anthropology was the application of biological ecology to the study of human adaptation which included systematic approaches to data collection on key issues such as 'matter', 'energy' and 'information' systems (Vayda & Rappaport 1976:20-21, Hodder 1982b, Moran 1979:11-21). The logic of systems theory was at the base of the argument.

In the Wahgi Valley, Paula Brown commenced her fieldwork among the Chimbu people. She examined the societies institutions, the environment, historical relations and how these different elements define the highlands societies as a culture region (Brookfield & Brown 1963, Brown 1973, 1978a, 1978b, 1982). She emphasised the understanding of the total social-ecological system of the people. This includes land, plants and animals, and the climate, as natural resources. She said

> New Guinea people have adapted to this environment so that they could survive and have also introduced or accepted new plants and animals for their use. It is

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essential for the understanding of social and cultural process to see that people have created and acquired techniques, social and cultural practices, and beliefs associated with these resources and their life in this environment (1978a:263).

The obvious research objectives would be to concentrate on ecological populations which were analytically identifiable and therefore highlands fringe regions, with low density population scattered throughout inhabited forested environments, provided the ideal conditions for ecological functional model. (Rappaport 1968, Vayda 1968, Clarke 1977, Sorenson 1972, 1976, Morren 1977, 1986). According to Morren the highlands fringe "is a fairly distinct zone ecologically, although hardly homogeneous over the expanse of the island. The interaction of the typically sparse human population with this forest gives rise to a distinctive set of problems, opportunities, and responses" (1984:177).

Among them, the most influential works are those of Rappaport and Vayda which have direct relevance to warfare. Rappaport went on to classify the Tsembaga as examples of 'living animal populations' and attempted to demonstrate the relationship between how ritual can act as a cybernetic mechanism that automatically adjusts the relationships between a population and resources (Rappaport 1971:25). This regulation of man-environment relationships "helps to maintain the biotic communities existing within their territories, redistributes land among the people and people over land, and limits the frequency of fighting" (1979:28). He provides an interesting hypothesis on aggression and disputes

> If twenty men for example each own one pig and have one garden, there are 400 possibilities for pigs to cause disputes between men by damaging gardens. If the number of men is raised to forty, each of which still has one pig and one garden the number of possibilities for disputes has increased to 1,600 other things being equal...Sources of irritation thus increases at a greater rate than population size. If population increase were taken to be linear, the increases in some cases of dispute, if not actual dispute, might be taken to be roughly geometric. It might even be possible to find some way to express mathematically an irritation coefficient of population (1967:116).

The weakness of this view has been the lack of further multidisciplinary research which could confirm the 'grand functionalist models' (Ferguson 1984:35). I have shown the ideological similarities between the Maring and S. Wahgi religious

values. Whether the ecological model can be used among the Central Wahgi cultures is debatable. Furthermore, the specific discussions on warfare seem to be a cross between the view that warfare is emanating from external forces uncontrollable by human beings and the proposition establishing 'the irritation coefficient' which echoes elements of frustration-aggression theory.

A. P. Vayda made substantial contributions to primitive warfare relating to man land relationship. He categorised the Maring patterns of warfare as adaptive processes (1989:60). Vayda's (1968:88-89) homoeostatic model include (a) diminished food supply, (b) expression of tension in warfare, (c) reduction of pressure of people on the land, and (d) reduction of tension to tolerable limits. As regards the final point he made the following remark

> When the number, frequency or magnitude of offences committed against another group exceeds a certain value, then the group goes to war and thereafter, at least temporarily the number frequency, or magnitude of offences committed declines (p. 87).

This hypothesis has not been empirically tested but it echoes a number of similar points made earlier; (a) Rappaport's irritation coefficient model and (b) it fits the description of frustration aggression theory.

In general the ecological approach links warfare with scarce resources. Groups compete for limited resources. There is a general assumption that in some areas like the Wahgi Valley with a very high population density, a correlation exists between increased population, competition of limited resources and the likelihood of warfare. But as Koch (1974:164) asserts, it is a "kind of famine theory of warfare. Its proponents believe that people seek to conquer territory in order to avert starvation". The overwhelming data suggest that the acquisition of land may be a consequence rather than the cause of warfare (Brookfield & Brown 1963:136, Clarke 1971:192, Vayda 1971:6, Koch 1974:165, Sillitoe 1977:73). Since intense warfare occurs in some of the low population density areas, the population pressure model seems inadequate (Hallpike 1973, 1988:105-109, Sillitoe 1980): Why fight when there is sufficient

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resources for everyone? I will return briefly return to this issue, when discussing the Wahgi social landscape and the origin stories.

Society and Ideology

The other 'camp' of anthropologists who deal with warfare is the 'socio-cultural' one. Here I will briefly present an approach that may be called 'Marxist-ideological'. Karl Marx himself was concerned with the history of class struggle and social conditions in Europe, and he knew very little about pre-capitalist and non-occidental societies (Giddens 1981:230-239). Nevertheless, there has been a number of attempts to build upon Marx's ideas and to conceive of contemporary warfare as pertaining to the relationships between the state and the people (see Paney et al. 1973). To the Marxist or conflict theorists, warfare emerges from competitive and different interests in relations of productions and differential hierarchical power relations. As Sprigg's (1984:4) notes in a review on the application of Marxist concepts to archaeology there would be a general agreement that "contradiction and conflict provide an initial basis for understanding domination, legitimation and change".

The highlands societies have been characterised as being acephalous, with political control, allocation of resources and distribution of products based on kinship principles. But the role of the bigman has been singled out, and for neo-marxists the existence of intensified agricultural regimes associated with pig production and elaborate exchange schemes enabled discussions on lineage modes of production, authoritative leadership and an emerging social hierarchy, gender based social inequality and so forth (Godelier 1982, Modjeska 1982, Josephides 1985). The gender based social divisions are seen as contradictory since women are the sources of production and the products of their labour are redistributed by the men. The women are 'producers' and men are 'transactors' (M. Strathern 1972, A. Strathern 1982:45).

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There has been an emphasis on the emergence of 'capitalists' within the tribal bigman structure. The tribal bigman is an emergent big peasant who dominates the little peasants of the tribal communities (Meggitt 1971, Finney 1973). The emergence of new class groups will create conditions for exploitation and class struggle. Conflict, inequalities and the resurgence of warfare can be interpreted as the struggle between the bigman and the little peasants (Amarshi et al 1979, Clifford 1976, A. Strathern 1984, Brown 1982, Schiltz 1986). This view relates to Marxist dialectics on contradictions arising out of different relations to the modes of production, but it is by no means clear whether the notion of contradiction is indeed useful for understanding all kinship based societies.

A related position is that conflict arises from differential relations to the structure of the society. As a result ideas and values are given new forms, particularly in the domains of style and ideology. Ideologies seem to hide reality or to create an alternative one, so the people are made unaware of their real conditions of existence. Earlier I noted Sillitoe's explanation of the role of bigmen in highlands warfare. He seems to suggest that common people do not realise the reality behind the bigman's actions, which is supposedly self-interest. Under the politics of the bigman's talk, the mass is driven to fight other groups. The changing style of emerging young bigmen brought about by a cash economy can be interpreted as a challenge to the traditional structure. A change in the structure of conflict is brought by new ideas and values (Reay 1982, 1988).

Others have attempted to locate the problem within the structures of the society. The basic view is that the traditional society is disintegrating, as seen in the reduction in cross-cutting affiliations (Podolefsky 1984), and in the decay in ceremonial and traditional exchanges (Feil 1978, Gordon & Meggitt 1985, Gordon 1983).

The past social life is rapidly changing through the impact of capitalism and industrialisation. The emerging capitalism is encouraging the formation of new social

groups which are discontent with the organisation of the new political and social order, and which conduct subversive activities against the state. Warfare would then be a kind of protest against the corruption, economic mismanagement and unequal distribution of resources by the state.

The conflicting relationship between the state and the people may be understood as the the breakdown of law and order or of social cohesion and solidarity. We should not forget however that in the S. Wahgi (as in a number of other places) many of the reasons and conducts of current warfare have been set before any of these western ideas and ideals were introduced. In that respect, the 'archaeological perspective' that I propose to apply here can be helpful. It enables us to take account of the temporal and material aspects of warfare and to integrate them with the religious ones: If we appreciate what was in the mind and the hands of the Wahgi people before the concept of 'law and order' was introduced and diffused through the Valley, we may be in a better position to understand that phenomenon of Wahgi warfare in all its complexity.

Chapter 2. The Wahgi social Landscape and the Origins of war

Introduction

This chapter begins with a discussion on the socio-cultural landscape of the Wahgi people. It should be mentioned at the onset that there are undoubtedly close links between the Wahgi physical environment, group territorial boundaries, and warfare. The crucial question is: what kind of connections? Can we concur with the suggestion, made by so many anthropologists, that warfare occurs as a response to chronic land shortage or nutritional pressures? So far as the Wahgi Valley is concerned, some researchers have proposed that there is a correlation between land shortage and high population density, but others have concluded that warfare may not be a consequence of stress conditions.

Sillitoe's (1978) examination of whether land shortage is necessarily linked to warfare points out something that ecologically oriented research often overlooks; the values placed on the environment by the people who fight the wars (p.75). I follow this line of argument and suggest that assessments as to whether 'land was plentiful' in S. Wahgi (Reay 1959:6-7), or whether there is a shortage of it, or whether it is worth fighting for, cannot be done merely on the basis of hasty empirical observations. The fact is that the S. Wahgi see their own surrounding landscape in certain ways and in relation to certain ideas, notably religion and warfare. I propose in this chapter to discuss some of them, and to comprehend how the Wahgi landscape is divided into three 'ecological zones', owned by the people, the good spirits and the bad spirits respectively.

I will attempt to show that the natural environment and its social counterpart are inseparable entities, deeply entwined with socio-religious concepts of time-space. This inter connectedness is fully expressed in the origin stories - the Wahgi accounts of their own foundation. After presenting selected accounts, I discuss two important themes in the remainder of this chapter: the Wahgi conceptions of time with the 'indigenous

archaeology' that ensues, and the moral and religious attitudes expressed through the origin stories. Thus, I will use here Wahgi sources to highlight the intricate connections that exist between the past, the present, the people, the landscape, and warfare itself.

Social Landscape

Wahgi orientation. To complement the previous discussion on the geomorphology and geology of the Wahgi Valley (pp. 4 - pp. 5), I outline some of the indigenous expressions used to describe the intermontane Valley they inhabit.

In the Wahgi language the terms defining the general directions are: *mi* (North), *ep* (South), *wuk* (West) and *ak* (East). In addition, there exist also terms with clear connotations to population movements and history, such as *Kumu* and *Kombok* which denote west and east.

Kumu means the stones that lie low or flat where the water flows above and makes a buzzing noise (i.e., *ku-mur*; caves, stone holes). From a geographical perspective, it refers to the lower valleys and the flatlands. The flood plains and the grassland of the Upper Wahgi region (west of Kudjip) is therefore called *Kumu kone*. Thus, the groups that live in the western side of a territory, and/or the groups with the prefix *Kumu* in their name are often said to have their origins in the west or upper Wahgi Valley.

In contrast, the region east of the Numants and Ga Rivers (North to South) is called *Kombok kone* (region of the stone people). *Komb* refers to things that protrude into the reaching sky or fall from it (i.e., *Komb - gake*; thunder and lightning, *gilpip*; rainbows, *Komb kupe*; clouds, *kombse*; the gods of the sky and *ku;* the stones reaching the sky). Geographically, the term refers to the high slopes of the Chimbu region and in a cultural sense it indicates the groups that live in the eastern side of a territory, or that originated from the Chimbu. The inhabitants of the north and south side of the Wahgi

Valley are simply referred to as those living on the north and south banks of the Wahgi River.

Ecological zones. Focussing more closely on the socio-cultural landscape, I introduce some of the concepts used by the Wahgi to describe and divide the landscape into various ecological zones. The widest division of the Wahgi landscape is that of the paired relations between the living world known as the 'planted environment' *(Omb kone)* and its mirror-image counterpart the invisible world. The other zones are the 'flood plains' *(Wahgi aak)*, the 'grasslands' *(Kul aak)*, the 'runaway gardens' *(Kek pene)* or secondary forest, the 'tree gardens' *(Ond pene)* and the 'alpine vegetation' *(Kimb aak)*. A section of the Wahgi Valley - from the southern bank of the Wahgi River to the highest mountain tops of Kubor Range - is presented below (Figure 3.1 and Map III), and the terms used to designate different 'ecological zones' are further discussed

3000 m   **KIMP AAK** (Alpine forest)

2000 m **Kipe Tanji** (wild/untamed spirits)   **OND PENE/KEK PENE** (tree gardens)

                              ancestral landscape

1700 m **Omb Kipe** (domestic spirits)   **OMB KONE** (planted/domestic)

                              living landscape

1600 m **Kangi** (bad spirits)   **KUL AAK**(grassland)

                              uninhabited landscape

1500 m **Kangi** (bad spirits)   **WAHGI AAK**
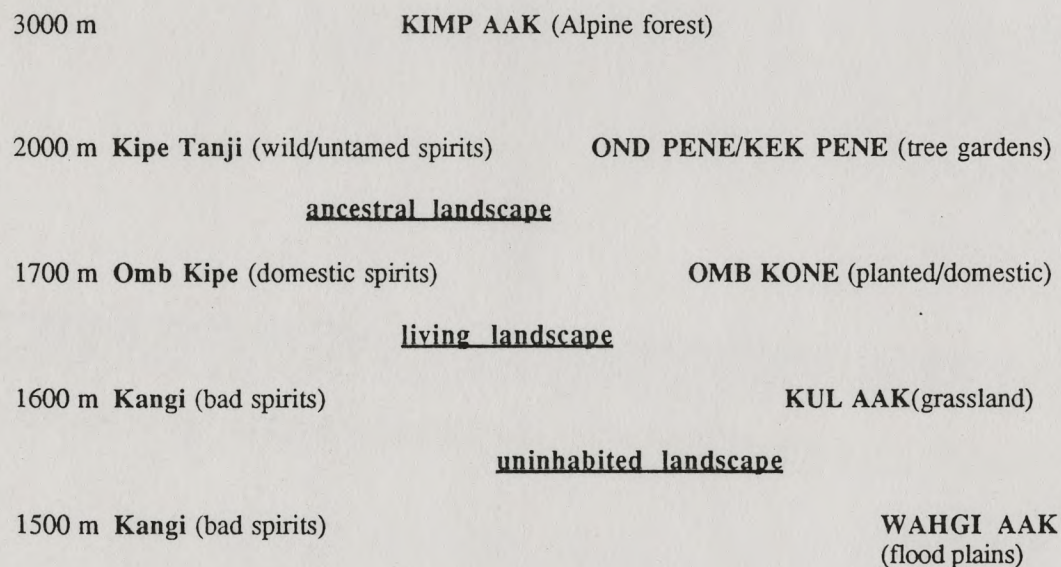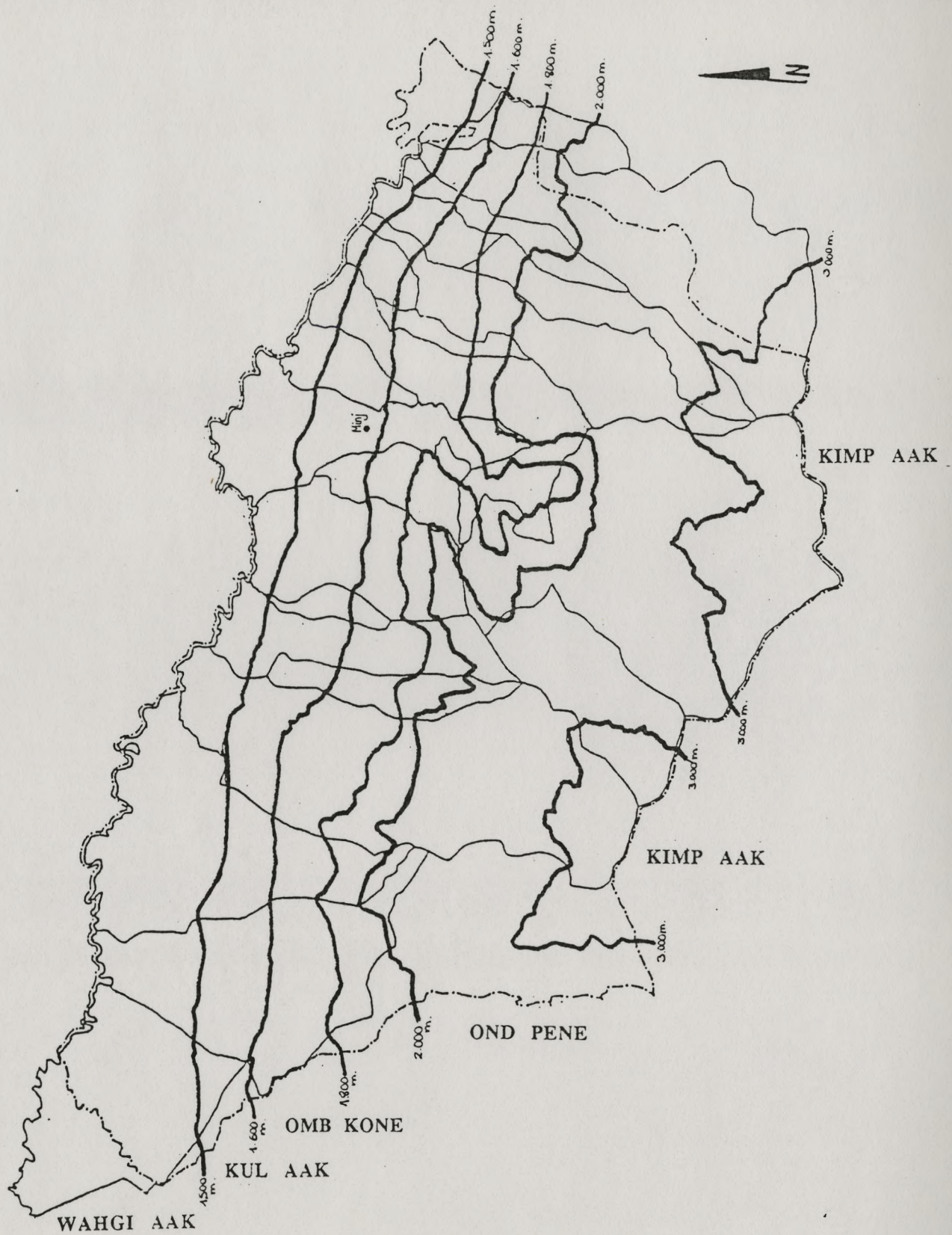   (flood plains)

Figure 2.1 A profile of the Wahgi Valley with (right) terms for the physical landscape and (left) the corresponding gods or spirits that inhabit it.

Map III. **Map** of the South Wahgi Valley with the profile of the social landscape (After Burton 1987).

The Wahgi Valley floor (1500 m-1600 m). The Wahgi River Valley floor and the immediate flood plains emerging into the relic river terraces, between 1500-1600 m, are defined as *Wahgi aak*. The term *Wahgi* (now used to identify the Major River) is generally used to describe the lower valleys of the major river systems. This identification is made on the basis of the type of vegetation growth, the category of spirits present and the ways one is expected to behave when visiting the region. In prehistoric times the area was densely covered by primary forest, and remnants of this vegetation are still noticeable throughout the entire Valley.

Immediately above the flood plains and the banks of Wahgi River, can be found an area predominantly covered by grassland referred to as *Kul aak*. It was often regarded as the 'foraging land for pigs', and it was claimed that these grasslands were bad places, yet to be 'converted' into 'people landscape'. The groups which are known to have lived in the grassland area have died out or have been reduced in size and incorporated into other major territorial populations. For example, specific inquiries about the inhabitants of the Minj-Gun grassland revealed a number of named groups in the following statement;

> The *yi doogum* who inhabited this area were Topeka, Kaimeka, Kuka, Karuka, Balka, Kambka, Minjsnge-Apreka, Singa-Angikemka. This place was a open grassland but the nose of the soil was bad. A thing called *Jingan-Kangi* (the Kangi spirits) who lived on the grass plains killed all the people. When the *Kiap* (Australian Administrators) came they made these things disappear. (K.Mukap T/T 1990, see plate 1 & 2).

Indeed, the origin story of the Minjnge, Singa and Kokaka groups demonstrates how they initially settled at Kormil, at the confluence of Minj and Wahgi Rivers, and how they then either died out or were incorporated into other contemporary groups (Appendix I).

Planted/domestic place (1700 m - 2000 m). The portion of the land in a tribal boundary which is cultivated at the present time by a given local community is classified *Omb kone*. *Omb* means to plant and I shall use the term 'domestic

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environment' to distinguish it from the rest of the uncultivated tribal land. The normal settlement patterns in this environment include such plants as *cordylines*, casuarina trees, bamboo groves, trees with edible leaves such as fig trees, and also structures like men's houses, women's houses, the family hamlets, pig houses, burial places, ceremonial grounds and battlefields.

Any place that has been domesticated and settled by previous generations but left untouched by the succeeding generation is referred to as *Kokma kone*. The domestic place which is left untouched over several hundred years becomes a *akamp se danjip kone* (the place where people stayed and became fathers of). Most abandoned *Omb kone* contain archaeological traces such as ancestral settlement sites; ceremonial grounds and burial places, which were in the past decorated with a wide range of plant species.

Tree gardens and alpine zones (2000 m and above). The term *Ond pene* literally means tree gardens. The mixed gardens are classified as *pene* and require fallow management techniques. The sweet potato gardens are cultivated repetitively and this process reduces the fallow period but at the expense of other varieties of crops which often formed part of the fallow vegetation. Areas that are allowed to rest and regain some vegetation coverage are classified as *pene mapsik* (see Burton 1987, 1988b). They are characterised by secondary regrowth with a mixture of domesticated trees such as casuarina, pandanus and natural vegetation.

A further classification is the term *Kek pene* (runaway gardens) which is a general reference to areas that are covered by extensive vegetation. It gives adequate coverage to hide from someone or something. Hence, the term *kek* means to run away and seek coverage among the vegetation growth. In another sense this refers to the part of the *Omb kone* which has 'run away' to become part of the natural environment. This area is the junction between the outer and more importantly the upper limits of cultivation mainly covered by secondary and primary forests. The general boundary of the *Ond pene* and *Omb kone* is the lower limits of the nut bearing pandanus trees. Some of the major

tributaries of the Wahgi River (Numants, Minj & Kane) provided the ideal conditions for populations to scatter along the narrow vegetated valleys to the upper limits of the cultivated zones (2,000 m). It is also along these valleys that most of the ancestral sites are distributed.

The alpine region, beyond the reaches of cultivation but part of the hunting and foraging grounds is referred to as *Kimp aak*. The approximate boundary between the *Ond pene* and *Kimp aak is* the lower limits of the stunt growth tree.

Ownership of the Landscape

Lands and things owned by the spirits. The separation of the domestic environment from the landscape of the gods categorises the ownership of things within it. Some animals are owned by the gods (see Healey 1990, Rappaport 1984). They can see the invisible world while human beings rarely see it (Harrison 1990). There are animals that are owned by the people but can see the invisible world because they were given by the gods. Human beings can come into contact with the gods but there are some who are possessed by evil beings. This category of people is labelled those who have a 'desire to consume food' (*kum pakisim*) and they are said to turn into animals, visit graves and eat corpses or entrails of the living people. They are the abnormal ones who disguise themselves and travel between the two worlds. This idea connects Wahgi divisions of the landscape and its inhabitants to the wider religious views on moral order and contravention, which I will discuss later on.

Kangi **spirits**. The *Kangi* spirits include *Kondol*, *Kupel*, *Kumberimp* and *Wandin* (Luzbetak 1956:82). Luzbetak comments that "they resemble disembodied souls, the native feels far less dependent on and is far less concerned with such spirits. He may on relatively rare occasion offer or sacrifice to such spirits" (p. 82). It is said that the bulk

of the unoccupied territory such as the flood plains and grassland is inhabited, managed and owned by these bad spirits.

This association of bad spirits with the flood plains is confirmed by the fact that sanctions and restrictions were imposed on behaviour in the *Wahgi aak*. These include prohibition to visit the *Kangi* zones after consuming certain categories of food with aromatic scents, and prohibition to go to the Valley early in the morning or late in the evening. As well, couples were advised not to have sexual intercourse in the flood plains.

Before the coming of white man most of the settlements were restricted to the *Omb kone* where the *Kangi* spirits could not penetrate. Evidence of the abandonment of the grassland plains is shown in two plates (1 & 2) of the flat grassland of Minj; (a) as it was prior to the establishment of the government station and (b) fifty years after contact. Settlements of the main Valley floor, including the flatlands of the *Kumu Kone*, have been avoided by the 'recent prehistoric' communities because of this association with the 'bad spirits' *(Kangi)*. One explanation for this avoidance is that the Valley floor was an ideal breeding ground for mosquitos. Indeed, high fever which resulted from malaria is usually regarded as the works of the *Kangi* spirits (Gorecki 1979). The nearest examples of the classification of the spirit categories are contained in Rappaport's *Pigs for the Ancestors* (1984). Of the *Anopheles* mosquitos, Rappaport says that they were "of greater danger to the welfare of the Tsembaga" (1968:37).

Kipe spirits. The *Kipe* associate with this humanly created landscape and concentrate in the cemetery burial place. They are described as 'the domestic ones' *(Omb Kipe)*. The areas that are not under active management are often credited with the custodial rights of the *Kipe* spirit categories. The tree gardens, secondary vegetated areas and the alpine zones which together form the higher grounds, from the *Omb kone* into the mountain ranges, are owned and looked after by the *Kipe tanji*. Remote ancestral souls

are often categorised as those domestic ones that went wild *(tanji)* and lived in the high altitudes of the Wahgi region.

Following this presentation of the physical and social Wahgi landscape, with its divisions and inhabitants, let us now examine the origin stories that take place within it.

Origin stories.

Akamp se danjip. There is among the Wahgi a genre of fictional stories, social dramas, and myths which integrate the people and their culturally constructed landscape. The creation of the cosmological order, of nature and of its creatures are the features commonly chosen by the narrators. This type of stories, which have an opening refrain *(eimain si)* and concluding statement *(bolt das ai)*, constitutes a form of pure entertainment, as well as constructing cultural messages for the audience. The origin of fire, how birds got their wings, why dogs have long ears, how cassowaries lost their wings are common themes and they can be extended to include the cultivated components of the Wahgi environment. Trees may have specific names because of the particular role they play in the cultural environment and various features of the physical and social landscape contribute specific situations and effects to the art of story telling.

It is possible to distinguish in these stories between those that are purely fictional or mythological, and those that convey 'foundation' messages [very much as Trompf (1991:18) distinguished Melanesian 'tales' and 'myths'].

Here I shall concentrate on the stories called *akamp se danjip*.This term is literally translated as 'how people migrated to a region, settled permanently and expanded into major political units' *(akamp*; people; *se*; take it or stay; *danjip*; become fathers of). The origin stories provide the source for group identity and inheritance. The legitimation of connections between present groups and past ancestors is acknowledged by people themselves and such relations are supported by the Wahgi themselves with reference to archaeological evidence.

Most of these stories begin with the dual lives of the ancestors (half human and half animal/plants), a duality which reproduces S. Wahgi division of the universe into the physical world of the human beings and the invisible world of the ancestors. The dual images of the ancestors allow for the passage of time for them to travel between the time-space of the two worlds. Essentially, the domesticated or cultivated physical environment is regarded as the mirror image of the 'spirit' world. Accordingly, unidirectional time does not exist, rather it is conceptualised as repetitive; a cyclical movement between the two orders of existence, in which the past social configurations are realistically contextualised in the present. I shall use two examples of the origin of the Dambnge Tangilka people to discuss both the links between the invisible and the living world, and their connection to the history of war.

The origins of the Dambnge. The origins of the Dambnge Tangilka come in two forms. The first origin story symbolises the totemic relationships between persons and animals, and the Tangilka are referred to as the 'children of the pigs' (*kong ngaakim*). The second story, an extension of the first one, shows that Tangilka is a segment from the Enduka Guanjs and Tangil people of Central Chimbu language. I obtained these stories from a number of old men during my field works in 1982, 1987 and 1988-1990. Though there are a number of accounts of these stories, for the purpose of this discussion I translated the stories from four elders (the original Wahgi transcripts are available).

The children of the pig. The eponymous founding father of Tangilka and Ta Kup was a character known as Tongel. He lived at Tapia Ku Beku and Dje Bar regions. He married two wives. The first one was from the Kopanka and the second one was from Nene Apka. He is described as a lazy person who left all the domestic duties (fencing, gardening and building) to his wives. Occasionally, he adorned himself in his best decoration and travelled to distant regions (*kong-guka pum*: visiting relatives, in-laws, attending festivities or going on trade expeditions). Following every trip he

returned without gifts *(kong-mogknge*; food; *dje-mongi*; items of wealth). He never gave any explanation of his inability to bring back items of wealth and special food for the family. Usually, he went to sleep and it was only after these trips that he snored, grunted and uttered strange noises the whole night. One day the younger wife discussed with the first wife Tongel's strange habits. They agreed that the Nene Apka woman should follow him and find out what he normally did in these long distance expeditions.

Some time later Tongel adorned himself as usual and left Dje Bar. As planned the second wife followed him. When he reached Tapia Ku Beku he followed a bush track towards Kosamil, rather than going eastward along the main path. In the densely vegetated flat area he took off his decorative items, hung them on the *Kosgak* (Fig tree) and disappeared. The wife reached the scene and noticed her husband's special gear hanging on the *Kosgak* tree. It was apparent that someone had been visiting this area regularly because the soil had been stripped of vegetation cover and it seemed to her as if some one had been tilling the soil to plant crops. Then she noticed some movement in a clearing, and in the middle of the open space was a huge animal: something that she had not seen before. But the noise she heard was similar to the grunts and moans that she often heard from Tongel during his deep sleep after one one of those long trips. Shocked by her discovery of Tongel's dual life she ran back to Dje Bar and told the first wife. In those days there were no animals bigger than the size of possums but the wives decided to conceal the information from the sons of the Kopanka woman: Koingamp and Kaime.

Tongel, in the form of a boar, foraged on the slopes of Kosamil and as usual returned to the put on his clothes. But something immediately went wrong. The bark belts did not fit his hips. The head gear was too big. The rest of the decorative items looked dusty and old. He cried in vain and sensed that some one had discovered him. He followed the scent which led him straight to his second wife's house. That evening he refused to eat any food and went to sleep. As usual the wife expected him to make the strange noise but Tongel was sound asleep.

The next day he was still in bed. In the evening he called his family together and told them that he was feeling ill. He told his wives to return to their brothers and fathers villages for some time. The two sons were to remain with him until he recovered. As the wives went to their relatives' home, Tongel told his sons to convert one of the houses at Dje Bar into a long house and divide the interior into a number of compartments. They were instructed to build one cubicle twice the size of the others on the left side of the door. As soon as the children completed their work, Tongel told them that he would soon go on one of his usual trips. In the meantime they were to send messages for his wives to return with their relatives and prepare food to celebrate his recovery. He told them that

they were to go ahead and kill an animal bigger than possum on the left side of the door. If he did not return early they were to distribute the meat among the visitors.

Tongel dressed as usual, hugged his children and left for his *kong-guka*. The next day the sons went to check the house. In every cubicle there were animals different size and shapes, they had never seen before. All of them were making strange noises, except for the one at the door that they were meant to kill for the ceremony. It was so huge that it covered the entire room that was allocated to it.

Startled by the sudden appearance of these strange animals, they immediately sent messages for the two women to return with their relatives. The wives were taken to the long house. Inside every cubicle were strange animals that no one had seen before and by the door was a boar. They recognised the boar but did not tell any one what the Apka wife had earlier discovered.

At that time no one knew how to butcher an animal of this size and no one had the skills to prepare oven-pit cooking. Koingamp and Kaime followed the instructions left by their father. The sons told the visitors to collect the edible forest plants, chop fire wood and bring the oven stones to Dje bar. As soon as the essential items for pig roasting was ready, the sons killed the boar.

When the pig was ready to eat, the people were reluctant to try something new; however the sons were the first to taste pork meat. They told the rest of the sweetness of the meat and encouraged others to taste it. The news of the discovery of this strange animal spread to other parts of the valley and people came to obtain the 'breeding stock' *(ombom)* from Tapia region.

Koingamp and Kaime became the founding fathers of Dambnge Tangilka and Ta Kup. The two groups are brothers and inspite of the war of the 'bird of paradise' that displaced Ta Kup, the remaining units now incorporated into the Kuma Kondika do not exchange women with Dambnge Tangilka. Thus, Dambnge Tangilka are often referred to as *kong akamp ombom*; the people who came from the pigs (transcripts from Wahgi are available for consultation. T/T O. Alki 1990, K. Kuma 1989, O. Teke 1982, M. Teke 1990).

This story locates Dambnge Tangilka's ancestral sites at Tapia Ku Beku and Dje Bar. To preserve good relations with the gods, the Tangilka sacrificed, offered and performed rituals at these religious sites. The practice continued into the early 1900's until the missionaries conducted a campaign between 1940 and 1950 in which the representatives of the Catholic Church based at Kup in the Chimbu region went through

the Tapia region and desecrated most of the worship sites (T. Alki, M. Teke, O. Alki T/T 1990). What is left of the ancestral living monuments are a few cordyline plants, indicating the circular outline of the worship place (the sacred sites are further discussed in a later section).

The flight of the Enduk Guants-Tangil people. The second story is an expansion of the first one and traces the roots of Tangilka as migrants from Central Chimbu. This was brought about by two historical changes. First, in the late 1950s Tangilka came into contact with the Enduk, Guants and Tangil of Central Chimbu, west of Kundiawa township. According to the informants the Tangilka are said to be a segment of the Tangil people in Central Chimbu. The major tribes include the Enduka: Eku, Tongi, Guants, Tangil, Guri, Kunane, Dokbanjs and Kansbanjs (O. Alki, N. Yuai, Kongi. Bump Ba, Kai Dari T/T 1990). Intensive warfare among the communities of the *Omb kone*, on the southern slopes of Porol ridge, forced the Enduka - Guri Kup and Kunane Kup - to migrate and they settled on the southern bank of Wahgi Ridge (Driuwamil, Kurumuk, Kasbalt). The Tangilka migrated to join these groups, after they were accused of adultery, and then they moved to the Tapia region. I use the second story of Tangilka to demonstrate and discuss some of the clues relating to Tangilka's complex history of war.

Among the Enduk Guants and Tangil people there were two brothers; Ping and Yuants. Ping was said to be a *yi ngom* (men with the voice) and Yuants a *yi rom komok ngom* (person of less social prominence, inarticulate and a bit deaf). Because of these characteristics Yuants spent most of his time setting traps for rodents. One day he caught an animal larger than the rodents. He brought it back to the village and the people could not identify it. They said it was an animal given by the sky gods *(kombse)* and advised looking after it. He named the piglet *wigmaam*. His wife Wauge raised it and soon the pig gave birth to a litter of piglets. Among them was a single male. Since it was an animal given by the *kombse*, everyone requested him to look after the entire stock so that when they were big others would obtain the pigs and breed them. He brought the male to the

men's house. It was regarded as the 'men's house pig'. As the pig population increased, the Enduka, Tilt Kup and Kamane Kup decided to hold a major pig kill (*kong gar*).

Ping as a *yi ngom* participated in most of discussions and came across a wife of a Kamane Kup man. It is claimed that the physical appearance and facial features of Ping was almost identical to those of her Kamane Kup husband. During the preparation of the preliminary pig kill in honour of the *Kipe*, Ping overheard the Kamane Kup husband telling his wife to go into the forest to collect the edible bread fruit tree leaves and the various types of ferns, used for cooking. When the wife was on her way to the forest, Ping decorated himself like the Kamane Kup man and followed her.

Ping caught up with her in the forest. She saw him and complained that if he intended to come to the forest, it would have been more appropriate if he collected the green leaves which was normally done by men. It would enable her to attend to domestic chores in the gardens. However, he replied that his intention was to draw her away from gathering at the ceremonial site so that they could have sexual intercourse. She did not notice that this was someone else impersonating her husband. They laid the harvested ferns as cushion and had sex on top of these greens. After the incident Ping followed a different route to the ceremonial ground. The woman returned later and in the evening complained to her husband about the contamination of the greens. She said

> If you wanted to do the bad thing (*yiap kes*, euphemism for sexual intercourse), we could have done it inside the house and away from the edible leaves and ferns. However, you insisted that we do it on top of the greens. We can cook the greens with the pork but we have children. Are they going to eat these greens with the pork meat or will we eat them ourselves? (O Alki, T/T 1990:3-4).

The husband thought for a moment and then asked her to identify who she had done it with. He was angered by what she said but before the dispute worsened, the brother of the husband intervened. He told the husband the possible suspect and advised him to leave the issue aside and concentrate on completing the ceremony. They would have a dispute settlement talk after the pig kill ceremony.

Meanwhile during the pig kill Yuants killed his boar. In the normal procedure of distribution and sharing of pork meat one is expected to add a portion of meat on top of the fat component. But Yuants was a *yi rom* was not familiar with the exchange principles and kept all the meat for himself and his brother; only the fat portions were distributed to others who looked after the pig of the men's house.

The Kamane Kup were angered by the two wrong things (*yiap aka*) committed by Ping and Yuants of Enduk Tangil. They held secret war meetings (*opo ol senjip*) to attack Ping and Yuants. Soon after the completion of the pig kill ceremony, the outraged

Kamane Kup called the participants together to conduct a procedural hearing known as *amp yiu tangnamin* (we will discuss the woman's talk). This is a form of dispute settlement where the opposing factions amass at their respective battlefields and invite third party groups to arbitrate back and forth until the disputed subject is resolved. The hearing was set up as an excuse for the Kamane Kup to attack Ping and his brother. The husband struck Ping on the head with a stone axe. Ping's skull was fractured and he died instantly. The death of Ping started a major war between Enduk Guants-Tangil, Eku Tongi and the Tilt-Kamane Kup pair. It resulted the flight of Yuants and his wife Wauge.

Yuants told the other Enduka groups that he was going to follow the brother Enduka Guri Kunane Kup group who had migrated to the south bank of the Wahgi river. Yuants and his wife gathered a few of their belongings including a small piglet and came to where Mingende Catholic mission now stands and followed a small track southwards, visible through the burnt grassland. They reached the present Diruwamil bridge. There were no foot bridges and they shouted across to the Enduk Guri Kunane on the South bank for directions to cross the river. The Enduka replied that there were no bridges but they were asked to uproot the 'Kunai' grass *(Imperata termilis)* and knot it into a rope. The Enduka on the south bank of the river did the same and thus constructed a temporary bridge at a narrow gap where the *Amban* trees on both sides of the river almost met across width of the river channel. Yuants and Wauge crossed safely to Driuwamil. The next day the Enduka gathered and gave them a warm welcome *(kor monjip;* rest period). They subsequently told the couple that if they stayed there it would become overcrowded so they were asked to go further into the interior where there were tracts of uninhabited grassland. There the Enduka helped them build houses and provided them with food.

One day the Tuimekup Munduk Kimam Ngaakim, Goi Gapam and Wakim Ngaakim were on their way to Kombok Kone to visit their allies, the Gokom Komban people. At Diruwamil, in the middle of the grassland was a lone hut with smoke rising above the thatched roof. They went to the house and saw two people sitting beside the smoke filled fire place. The Tuimekup asked them to identify themselves. Yuants and Wauge told them their flight from Goi Wai Ku. The Tuimekup sympathised with them and gave the couple two parcels of mashed banana *(tau kilmbe;* usually prepared for long trips and lasting up to five days). The husband ate the banana without a word while his wife spoke in her own language *(yiu koko;* Chimbu language) and told them that

> This banana must grow in abundance at your place. When I lived at Goi Wai Ku I ate a lot of the Tumnamb bananas. One of my husbands (classificatory) was axed to death. I ran away with this simpleton husband to join the Enduk as a refugee. The Enduk encouraged us to grow these bananas in this open open grassland. I

am used to eating Tau Tumnamb and wish to be taken to the source of this banana (Oken Alki T/T 1990).

The Tuimekup travellers sympathised with Wauge, postponed their *kong guka* trip and escorted the couple back to Bangamp. The rest of the Tuimekup organised a welcome ceremony them. Yuants and his wife were asked to wait until the Tuimekup returned from their planned expedition to the *Kombok kone*. After the trip, they told Yuants and Wauge that the Omung Valley would soon be overcrowded and therefore they needed to move further west and inhabit the barren grassland. Furthermore since their name was Dambnge it would be ideal for them join other Dambnge along the Numants River. The Tuimekup brought them to Gurber and told the Dambnge people that

> These two people were on the north bank of the Wahgi river. The elder brother was axed and the younger one ran away with his wife to the south. They were living in the waste grass land near the Enduk home land. Their name is Dambnge. If they were Kuma we would have looked after them but since their name is Dambnge we brought them to Tapia so that they could join the rest of the Dambnge here (O. Alki T/T 1990).

The Tangilka couple lived with a Kopanka old man at Tapia Ku Beku and made their gardens at Dei Bar. They raised the pig they brought along with them. When the animals were plentiful the Dambnge came to obtain the stock from them. Soon Wauge became pregnant and give birth to a son. The old man went to the forest and caught a possum (*Tongel*) to celebrate the naming of the child. The old men said that the child was not to be named after any of the major Dambnge groups. They showed little interest in them at the initial stages of settling into a new environment. Therefore the child was to be named after the possum; he was known as Tongel. Tapia Tongel Mape married a Kopanka woman named Nokbai. They had two sons, Ping and Kondi. Ping was named after the one killed at Goi Wai Ku. Kondi was named after the Kondi Ngaakim of Kopanka. The Pingka are the descendants of Ping. Kondi had two sons; Koingamp and Kaime. Koingamp is the founding father of Kumu and Kombok Kanem of Tangilka. Kaime is the father of Dambnge Ta Kup.

As can be seen, this entertaining account of the flight of Yuants and Wauge also serves to convey the complex and dynamic sequence of warfare of the Dambnge Tangilka, and to document their movements across the physical and social landscape. The

same kind of information can be found for the Minjnge, Kuma, and Konts *gapam* (grand children), whose origin stories are enclosed in the appendix (I).

The knowledge of the origin stories, the stories of migration, the expansion of the clans (Ka groups) and the subsequent involvement of the groups in warfare can all be sources of power when in the wrong hands, and access to them remains extremely selective and restricted. However, I will attempt in this section to demonstrate some of the hidden or concealed meanings of the origin story of the Dambnge Tangilka.

Concealment and condemnation - the Tangilka history of war.

Kul aak; **living in the grassland.** In the story a distinction is made between the discovery of the couple in the grassland *(Kul aak)* and the suppliers of the banana, who came from the domestic settlements on the higher slopes of the Tapia ridge (*Omb kone)*. In the migration of Yuants and Wauge the story implies that the domestic environment of the Enduka was overcrowded and that the migrants were told to live in the grassland, and yet the grassland was generally seen as inhabited by evil spirits and therefore undesirable for human occupation.

Did the Enduka want the Tangilka to die by encouraging them to inhabit the land of the evil spirits? The possible explanation is that the Tangilka did stay with the Enduka for a while but were involved in Enduka's war, either by maintaining a friendly but neutral relationship with the principal fight partners or supporting Enduka's enemies. In either case the Enduka expected a reciprocal payment for playing the host role.

The Enduka may have been involved with a war with the neighbouring groups such as Komban, Kumnge, Zingekup or Komonka at the time of the migration of the Dambnge Tangilka. The settlement patterns were more compact and restricted to the *Omb kone*. Meanwhile a large part of the land was unoccupied and when the Tangilka arrived, the Enduka may have allocated the portion of the land which was part of the frontier or

the buffer zone. The Tangilka created a human defense as a neutral people between the Enduka and their opposite fight partners.

The Tangilka had cultivation rights in the Enduka garden land in the *Kul aak* for sometime but later were caught in a war which involved Tuimekup, Komban and Enduka. There are enough clues to suggest that the Tangilka cooperated with the Tuimekup and attacked the Enduka. There were numerous occasions in which the Tangilka claimed that they have been at war with Enduka and killed a lot of Enduka men (A. Alki T/T 1990).

Wauge's speech; the woman talk. When the Tuimekup sympathised with Yuants and Wauge, they offered them some mashed banana to eat. This type of oven-cooked and mashed banana is typically cultivated at the high attitudes, from the *Omb kone* into the *Ond pene*. They are ready-made, light weight and (when stored under appropriate conditions) could last up to a week. Why, in patriarchal and male dominated society, was it a woman who liked the taste of a banana, made a speech, and requested to be taken to the source of the plant? To answer the question we have to look towards the model of marriage transactions (see Chapter 6). The metaphor used here refers to the refugee status of the Tangilka. It is a kind of war talk that is directed towards redemption from the gods. The Tangilka were like a newly wed wife who must establish her social prominence in a another territory. In the early tender years she is passive, submissive and more often seeks the support and comfort of the connected people.. As she gains confidence and wins trust from others, she plays a dominant role in the community affairs.

In a similar line the accounts of migrants often contain anecdotes of subordination, diplomacy and peace, rather than aggressive war-like statements. The Tangilka ought to be more careful, passive and subordinate to their host groups because the fault of becoming refugees rests upon themselves. It was through divine help that

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others punished them. Some examples of migrant-host relations through marriage are discussed elsewhere (Chapter 3 and Chapter 6).

If we combine the statement on the occupation of the unfriendly environment with the woman's talk of returning to a friendly and domestic one, it is apparent that it was not simply that Wauge liked the taste of the banana and wanted to go to the Tuimekup territory. Quite the contrary, the consumption of banana reflects a secret war meeting between the Tangilka and Tuimekup which led to a war against the Enduka. In that meeting the banana was used as a symbolic representation of the war talk and the reference to the settlement in the grassland is another way of expressing the hostile relations between Tangilka and Enduka. The Tangilka were accused of being disloyal to the Enduka and were chased out. The grassland region in the Wahgi is expressed negatively and the underlying implication is that the Enduka also showed negative attitudes towards the Tangilka. The hostile environment is owned by a hostile group. The notions of migrant and host groups will be discussed in connection with the group structure (Chapter 3; see pp. 188 - pp. 192).

In the reminder of this chapter, I will discuss two important themes that follow from the origin stories and the social landscape and that have direct implications to warfare: First the notion of 'indigenous archaeology', and then the issue of balance and morality.

Pasin bilong tumbuna; S. Wahgi Archaeology

The past behind us (*aling*). In western eyes, the origin stories may be denigrated as fairy tales and false history. For example, it has been possible for Reay (1959:34), working in S. Wahgi, to conclude that "the Kuma have short memories" and that "the generations between the founders of the smallest group and the original ancestor of the clan or phratry are obscure; no one can even guess how many generations have

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elapsed, and none of the intervening names (beside those of the ancestors' sons) is ever known".

Brown's (1972) comments on the Chimbu people's own past are of a similar nature. She argued that the "Chimbus see their lives as forever in change and flux" (p. 5). There are no systematic cosmological beliefs and no stories relating to a fixed natural order. Chimbus do not look upon the past as a lost "Golden Age". They do not see "their history and tradition as an irreversible movement from primitive past to progressive future". The past is not honoured, the aged are ridiculed (p. 6). The "concern for the present is indicated in the patterns social relations' in which 'the use of kinship terms reflects current relations, not genealogical ties" (p. 7). There "are no ever enduring clan and tribal ties" and warfare "against an enemy group was a source of pleasure and entertainment as well as loot" (p. 7). She concluded that

> Without written records and without trustworthy oral history, genealogy cannot be absolutely authenticated; to the Chimbu, the only matter of importance is present reality, cooperation or separation (Brown 1978b:187, Brookfield & Brown 1963:9-10).

However, in recent years, there is a genuine realisation that a special bond exists between yesterday's world and present social strategies. Sillitoe (1981:70) says that what we see today comes from what happened there yesterday, "from highlanders recent past and not from contact with a technologically advanced outside world". Similarly, Groube (1985:52) noted that "the attitudes towards people both within and without the immediate group, attitudes towards marriage, children, pets, towards land, conflict, loyalty and so on have come from the past".

In the Wahgi Valley and elsewhere in the highlands the significant area of interest is the living prehistory which is, in the words of a number of archaeologists, 'the prehistory that was caught alive or ended in 1933' (Golson 1968, 1971, Mountain 1979). Yet a fundamental difference between western (academic) perspectives in studying the past and the Wahgi attitudes to the recent prehistory is the conception of time. In the above examples, western archaeologists would conceive of time as an entity that is

behind them, so that the familiar procedure is to walk back, discover and reconstruct a past that is unknown. The Wahgi conception of time is quite different.

The past in front of us *(yiek)*. For the Wahgi, it is the future that is left behind, and the expression for such a dimension is *mi aling* or *bulto*; 'it is behind my back'. On the contrary, the past is situated in front *(ep yiek)*. This conception of time implies that our past is a living one and therefore that there exists a remarkable affinity between the people and their socio-cultural landscape. For us the things of the past are in front *(yiek)* there to be seen, touched and felt: the ancient burials, the 'living monuments' and the holy worship places with their objects of power said to be left by previous ancestors, the settlement sites with the widest range of forest plants, the social environment, and so forth, all representing symbolic and religious dimensions of Wahgi.

For us Wahgi, the past is not abstract or distant, and nor does it belong to another time or another place. Instead, the Wahgi past has a metaphorical and symbolic quality to it. Hodder's comments in the introduction to *The Domestication of Europe (1990)* may provides a useful analogy to the Wahgi notion of time.

> In writing I create a past to be read but before me is only blank whiteness; an uncertain future. You read the text as structured in time and space... I the writer must spend time reading what I have written and reading what I want to say in terms of what I have already said. And you the reader begin to write the text in the sense that you begin to create patterns and meanings in my text (1990:1-2)

Applying this image to the Wahgi Valley, it can be said that the origin stories have their speaker and listener context. If I am a listener meant to grasp the account of the Wahgi culture as intended by the speaker, I need to share the same cultural background with the speaker and understand the story in its terms. The 'text' is not long gone and distant - it is in front of me and it brings the past to be with me as well therefore the past is here with me.

Two landscapes: time-space. We can better understand now how does the S. Wahgi conceptualise time. Time is almost synchronised into a space-time-space dimension. The opposite ends are marked by two worlds; the living and invisible world. The temporality that connects these two worlds is measured in terms of a distance in which individuals travel from birth to death.

A human life cycle is a distance-time travel from the physical world to that of the ancestral spirits. When individuals die they have reached the end of the path, they leave behind the 'earth skin', and their 'shadow image' returns to the world of the spirits. Both the living and the dead live in the same environment. Whatever is going on in the living world is always visible to the spirit (*Kipe*) world. It is important to stress that the domestic environment (*Omb kone*) is regarded as the mirror reflection of the invisible world. The human experience of seeing the other world is described as 'his eyes change and he saw it'. It is a form of vision where some one instantly visualises trees, animals and natural features as other real human beings. In a different way, the animals and plant species themselves can see the invisible villages. Uninhabited grassland may look empty but this is where the homes of the *Kipe* are situated. The forest regions are the homes of the *Kipe* who's own domestic animals (equivalent of the domestic animals in the human world) are possums, birds and snakes.

The forces of *Kipe* govern nature and its creatures. They enable rivers to run, rain to fall and lightning to strike. The cosmological order of existence is based on stable, unchanging and repetitive patterns. The movements of the sun, cycles of moons, different seasons of flowering plants and tree crops, cycles of the nature and its creatures provide the idea of a cyclical, mythical timeless past.

Harrison's (1989, 1990) analysis of the cosmology and totemic ancestral spirits of the Avatip people of Sepik region bears a resemblance to the S. Wahgi belief system. The Avatip acknowledge the existence of two paths. There is the every day sense of experience in which human beings exist. Behind this visible one exist a concealed

invisible world inhabited by totemic ancestral spirits. They do not reveal themselves but are visible as animals, plant species, rivers and mountains. He quotes from an interview, "You realise that this isn't really a tree. It is actually a man but you and I cannot see him because we are only living people. Our eyes aren't clear. We are not able to see things as they really are" (1990:46).

In S. Wahgi, fertility, abundance, well-being and prosperity in the ordinary world is taken as a sign of harmonious, reflective and reciprocal relations between the two orders of existence. In the domestic environment, the social relations between individuals are expected to centre around good behaviour, harmony, material reciprocity and social equality, just the same as the relationship between the invisible forces and the real world. Man creates the world of the *Omb kone* similar to the world of the *Kipe kone* and the idea of a timeless past is another way of saying that the gods and people live on earth and share the same environment. Therefore the social cycles of the cultural environment are modelled on the greater forces of *Kipe*.

Time to the people is the crystallisation, duplication and repetition of the events of the other world within the daily affairs of those in the real world. Essentially, time of the past can be condensed to make past events real, legitimate and politically forceful as if they happened only yesterday. The origin stories are a symbolic and metaphorical reflection of what happened yesterday in the other world. This conception builds on a temporal dimension which is based upon the generative principles of mutual dependence and social reciprocity. It follows that the Wahgi attitude towards things past will have an almost 'archaeological' character to it, as I discuss in the next section.

The objects of the ancestors. As indicated, the *yiek* things (the past in front of us) are part of the Wahgi landscape. There exist many accounts of Wahgi people discovering, storing and worshiping 'landscape artifacts', which were understood to be the products of prehistoric communities. Just like western archaeologists who are

attracted to artifacts in order to uncover bygone societies and reconstruct the meanings of ancient lifestyles, so are the Wahgi actively aware of the significance of past material culture. For example, Trompf notes

> I think of Koukoiamb, 'the Power behind the Stone', a raised mortar which has been ground and rounded by some long forgotten generation, yet which the Wahgi (New Guinea Highlands) took to be placed by an occult strength demanding pig sacrifices to bring fertility and victory in war (ibid:13).

He includes a picture of such artifacts (plate 1, p.133). These objects had religious meanings; they were the products of the prehistoric communities. Since these objects were thought to be part of the invisible world, the occasional discovery of a mortar, pestle or other artifacts was read as providing evidence of the symbolic representations of the presence of the gods (Luzbetak 1959, Strathern 1971). The gods revealed them to the people for specific purposes. For example, the Tangil Kumu Kanem kept a marine shell as the object that interacted between the gods and themselves (T. Alki, M. Teke. T. Olal T/T 1990). Perhaps one of the most striking relationship between the past sources and the preservation generations is the preservation of the ancestral sites, which have a divine affinity with the origin stories and a direct relation to the history and the conduct of warfare.

The ancestral sites *(Se Danjip Kone).* The preservation of ancestral settlement sites supports the correspondence between the verbal accounts and the archaeological evidence of human activities. The place names as recorded in the Dambnge story like (a) Goi Wai ku (Central Chimbu), (b) Jiruwamil (South Chimbu language), (c) Jek Bangamp (border of Middle Wahgi and Chimbu language communities) and (d) Tapia Ku Beku (Middle Wahgi language) are the physical evidence of a group which migrated from the eastern part to the middle part of the Wahgi region. Every group in South Wahgi has a *se danjip kone.* They are the most sacred places and all clans (Ka group) acknowledge their common identity and inheritance of certain social rules by reference to their physical source of unity.

Elsewhere I explain how ancestral marriages gave rise to such social categories as 'brothers' and 'brother in-law' groups (Chapter 3 & Chapter 4). In brief, all members of Kuma are brothers and trace their common roots to Kumbraagk, the largest ancestral site in S. Wahgi. The Kuma regard Nene as brother in-law groups and they trace this connection to Wagmil. This is the site where Nene groups gave a sister to the migrant Kuma ancestor. Similarly, Tapia Ku Beku signifies the brother in-law relations between Dambnge Tangilka and Kopanka. The Kopanka give a sister to the founding ancestor of Tangilka. The couple's first house was at Tapia. Whereas Kukumb-Kikimil represents the brother clan relationship among the rest of the Dambnge. The following table shows the location of the sites.

Ancestral names	Ka groups	Origins sites	Location
Kuma (east)	Golikup Tuimekup	Omung	Omung River
Dambnge	Kopanka Kamblika Kulna (e)	Kukumb Kikmil	Numants River
	Tangilka Ta Kup (i)	Tapia ku beku	Tapia ridge
Kuma (west)	Kurupka Maiamka Deimanka Kondika Konombka Kugika Aklimka (e)	Kumbraagk	Wahgi River
Nene	Muruka Kusilka Kanjska (i) Apka (i) Taka	Wagmil Tembil	Minj River
	Minjnge (e) Singa (e) Angikim (e)	Kormil Kana	Minj River

Table 2.1. Names of the ancestral places, their locations and the groups that own them (i) incorporated in other groups, (e) extinct; cease to function as political units (see map IV).

Ethnobotany. Ethnobotanical components of the origin sites are another form of physical evidence of the initial migrations and settlement of the founding populations of the contemporary clans (*Ka* groups). The stories themselves are a reference to the deliberate plantings of trees, shrubs and edible vegetables as records of past ancestral activities, but little research has been conducted on their social and religious significance. The nearest equivalents perhaps of this sort of ancestral site are the botanical gardens in the western world, although the planting of shrubs or placing of flowers in graves of Christian cemeteries seems to be an echo of a similar practice.

From the time of the initial settlement, the area which was then a *Omb kone* was over the generations decorated with socially significance plants. Against the background of the Valley floor as an intensively cultivated grassland regions, these sites are the only artificially created forests, and they contain the largest number of plant species. These 'living monuments' were built by the people themselves from the time of the *se danjip kunum* through to the present. Burton (1987:22) describes such sites as Kumbraagk as a "unique patch of rainforest" and "a site of national heritage status". The plants that are planted in these special areas are those that have the capacity to grow and expand after the initial planting. It implies that plants that were planted by the first ancestors survive for a long time. They are the records of the past. The descendants of the founding fathers acknowledge their existence, interpret their meanings and also they will plant additional trees in the course of their life time. The next generation honours, worships or pleads for spiritual strength by conducting ceremonies in the same place. Some of the plants noted in the sites are cordyline trees, bracken and fern plants, breadfruit tree, various beech and oak species, black palm and trees for making weapons, as well as herbal and medicinal plants.

Detailed studies of the social importance of the major cultural plant species, of the age of some of the trees, and of the rituals performed in these special areas should

provide additional information on how the Wahgi themselves create this form of 'archaeological record', and how they make use of it to construct a comprehensible social, religious and symbolic world. It is in those ancestral places that burials are found and rituals of war conducted (Strathern 1972:73). Informants claim that in times of social stress, poor health, hunger or infertility, the owners of these sites went there to honour their ancestral spirits. The Tangilka, for instance, conducted their religious sacrifices at Dje Bar, which is, following the origin story, the initial house where Tongel built his pig house (M. Teke T/T 1990).

This brings us to the last issue to be discussed in this chapter - that of morality. I will show, with the story of the Tangilka as an example, how both the origin stories and the social landscape help us account for the past and present conditions of warfare of this group.

Metaphors and morality.

Moral views. It is obviously not necessary to prove (or to disprove) that Tongel turned into a boar, that Kui emerged from earth worms or that the old woman had an affair with some alien creatures (see appendix 1). The Wahgi are aware of the mythical nature of these stories. Furthermore, they appreciate the possibility of ambiguity and multiple interpretation of these stories, and make good of it when necessary. As Trompf puts it:

> What also becomes important here are the clever or gnomic sayings, proverbs, metaphors, parabolic expressions, rhetorical devices, pointed anecdotes, and the traditions about previous migrations, about exploits, about memorable inventions, about prophecies and so on- all which have their places in the multiple bodies of Melanesian wisdom so sadly neglected by most missionaries and anthropologists alike (1990: 21-22).

In the origin story of Minjsnge, Kui was a handsome man, with plenty of wives, pigs, and long houses and he also enjoyed the cultural life of the world of the *Kipe* (see

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this story in appendix I). He concealed his dual life by wearing a flaky and dusty skin. He was a man of 'less social importance' or rather he pretended to be one, ignoring the cultural manners of South Wahgi people and behaving like a wild person. As long as he had his flaky skin and behaved in a uncustomary manner he was able to enter and bridge the time-distance between the two worlds.

But Kui was trapped by the two girls who found him to betray himself and to become humanised into the Wahgi culture. The girls attempted to help what seemed to be a 'lump of soil' by clearing the space for it to dance, and he defied it by moving away from the clearance and dancing in dirty and dusty places. The girl's trap to find out whether this 'lump of soil' was a human form tempted him into stealing sweet potatoes, and this revealed that he was not an earthworm but an uncultured human being. He was caught defying the rule (do not steal) and he was forced to live in the human world.

Nevertheless Kui continued to conceal his other life (living as a person of less social importance who did care about his appearance so that the girls were not attracted to him) until the time of the taro exchange. The girls told him to stay back in their homestead but he did not, and the clue to his other personality was revealed by the broken piece of taro. Thus the girls finally discovered the secret of Kui's other life. By destroying the objects that gave him 'right of passage' to travel into the invisible world and back, they made him live in the real world.

The old woman in the origin story of the Dambnge Kopanka had many sons and she was beyond the child bearing age (see story in appendix I). However, after consuming a sweet potato tuber known as *nguntswan amp* and after drinking the fresh water dripping from the *Kaman* tree, she became pregnant and bore a son. Here it is a plant that personifies and takes the invisible form of the *Kipe* world.

In the Dambnge Tangilka story, Tongel lived a double life and it was his habitual uncultured manners that led to the discovery of his hidden life. Had Tongel been a real person, he would have shown compassion for his family, and would have brought back

some gifts from his expeditions (food exchange or items of wealth), rather than coming back home empty handed. Was he greedy and consumed everything before he reached the village? Did he distribute the food and items of wealth to someone else? Were the heavy grunts and snores and strange sounds that he made at night a sign of self satisfaction?

Normality and knowledge. What is common to these stories is that they highlight - at a metaphorical level - the dialectical relationships between ideas of righteousness and the defiance of that order of existence. As demonstrated in these stories, the hidden lives of the ancestors would not have been discovered had they acted normally. Instead, they committed a fault that led to their own betrayal. In these accounts, it is the pattern of normality that is distinguished and confirmed.

When normal events do not pair with others, the existing habits and normative structures are brought into question. The normal behavioural expectations are turned into suspicion, discovery and revelation. Given that the Wahgi cosmology serves to interact between the two worlds, it is seen as quite normal for one to enter the invisible world in the same way as animals and trees do. However, for an entity which naturally pairs with another entity, the detour from the normal expectations for over a long period of time becomes rather abnormal. Tongel's dual life, for example, could have gone unnoticed, were it not for the fact that in a marriage partnership he is expected to perform the duties of a husband. While occasional trips away could be considered normal, it is the lack of shared responsibility towards the marriage relations that questions the very existence of the marriage partnership. The moral of Tongel's story, as well as others, is that the habit of doing one thing and neglecting another leads to re-examination of what are normal practices. Upon the discovery of the things that went wrong, the actor is expected to direct his attention to those areas that require his primary obligations.

The capacity of origin stories to reveal imbalance is crucial. Indeed, it is the mythical relationship between the spirits and the named ancestors conveyed through these stories that forms the basis of the 'war talk,' and that explains how is it that it can be said of a man *'Sin bilong em yet i kilim em'*. The fault of the eponymous ancestors, or defiance of the moral, religious and cosmological order of existence, are the most lethal weapons that potential enemies can obtain about their opponents.

Conclusion

This chapter started with a description of the salient geographical features of the Wahgi Valley. These include the open flat landscape of the headwaters of the Wahgi River, the well developed terraces and alluvial fans of the middle Wahgi and the dissected hilly country side of the Chimbu regions. The eastern end of the Wahgi Valley, from Numants River is narrow and the surrounding slopes rise sharply into the Bismarck and Kubor Ranges. The western end of the Valley is characterised by open grasslands and swamps.

It is upon this background that the Wahgi have lived their history, and it is upon it that they have constructed their origin stories. If we draw a section of the Valley from West to East, the Wahgi cultural conceptions clearly identify the Upper Wahgi Valley as the area where 'the stones do not reach the skies'. In conjunction with the spiritual landscape, this environment would be described as hostile, inhabited by bad spirits (and mosquitoes). In contrast, the Chimbu region of the Lower Wahgi Valley was the domestic environment, the *omb kone* fit for human settlement.

The origin stories, for their part, demonstrate a population movement from the *Omb kone* into the *Kul aak* and *Wahgi aak*. The Tangilka story indicated that Wauge came from the domestic zone of the high slopes where she grew the *tumnamb* bananas along the slopes of the Porol Ridge. Then she was given the rights of cultivation by the Enduka in the grassland which is referred as the barren and depleted land which was not

suitable for growing the bananas. She wanted to move back into the higher slopes of the

Omb kone. Brookfield and Brown also recognise this pattern among the Chimbu

> We have seen the Chimbu traditions recount a migration from the side valleys and higher ground to lower attitudes and latterly, into the short grassland. The Chimbu have no long- term history, but it seems that this expansion and migration took several hundred years (1963:72).

Thus we see in the Wahgi Valley as a whole a movement from the higher grounds down closer to the river. What is it that led the Wahgi people to leave the domestic environment for the land of the *Kangi* spirits? Upon the evidence of the origin stories on the one hand, and that of archaeological research conducted in the Valley on the other (e.g. Golson 1982a), it may be suggested that this crucial shift was brought by the introduction of the sweet potato into the region around 1600 AD. Being a grassland tolerant crop, the sweet potato enabled repeated cultivations, and this sudden fertility lead to an increase in pig and human numbers. In the origin stories, this period of intensified religious and ritual activity is referred to as *moss kunum*. This period without war did not last, but it is clear that to understand subsequent warfare we need to take account of the Wahgi social landscape and the origin stories that occur within it.

Chapter 3. Conceptions and Practices of Wahgi warfare

Introduction.

An analysis of the many aspects of Wahgi warfare requires a brief account of the recent contact period. In particular, the historic relations between the early gold explorers and the indigenous people provides essential background to both the speedy phase during which colonial administrators and missionaries abolished warfare, and to the resurgence of warfare after the political independence of Papua New Guinea in 1975.

Following this brief account, an attempt is made to comprehend how some English expressions such as 'aggression,' 'violence', 'hostility' and 'warfare' are defined in the Wahgi cultural context. A discussion of the language of war and of the social relations of warring groups such as 'fight root men', 'dead men', 'opposite fight partners' and 'bow bird', provide some background to the organisation and conduct of war.

The cycle of war is divided here into two sequences. The first presents an overall view of warfare beginning with the non-war period through to the escalation of war talks and the ending of a formal war, which involves peace ceremony and compensation payments. The second sequence involves the period of formal combat itself. In the final part I discuss some aspects of the daily conduct of war such as the climax of the war which involves close-combat spear throwing, and the rituals of war deaths.

The Wahgi encounter with the 'red gods'

Contrary to what has been widely reported in the ethnographic literature, the highlands regions were not totally isolated from the rest of the Island of New Guinea.

Leaving aside the archaeological evidence, there are many ethnohistorical testimonies to the movement of new plant crops and exotic material items into the interior, at least from the 1600s onwards (White 1972, Hughes 1977, Burton 1984, Healey 1990, Heaney 1982). For example, a piece of cloth reached the Wahgi and was used by a Kondika at the climax of their pig kill before 1933 (K. Mukap T/T 1990). Likewise, people from East Kambia are said to have brought steel axes to the head waters of Minj and demonstrated their superiority to stone axes to the S.Wahgi people (K. Mukap T/T 1990). The introduction of sweet potato and other new cultigens was widely recorded within remembered history (Watson 1965a:440, Nelson 1971:208, Sorrenson 1976:79, Bowers 1968). Although archaeological evidence appears to suggest that the pigs were introduced as early as 6000 BP, it is certain that the combination of the pigs and sweet potato brought wealth, fertility, prosperity and abundance of food sources to the Central Wahgi cultures (Bulmer 1975, 1977, Watson 1965b, 1977, Golson 1982a).

Where do the S. Wahgi themselves think that these things came from? On the whole, the sudden appearance of these things was regarded as miraculous, directly associated with gifts from the sky gods. In recognition of these gifts, the people went to considerable length to honour the 'source people', and the fertility rites associated with pigs and sweet potatoes are well documented in the Wahgi and elsewhere.

Thus, the sudden appearance of 'red men' (*yi bang*) could only be interpreted by the S. Wahgi in a religious context dealing with 'unnatural events'. The Wahgi people compared the white men with their gods from the distant regions. They were the divine source which enabled groups to win wars and also the creators of the objects which the indigenous people stored as 'fire taboo substances' in the 'fight eye houses'. Hageners, like the Wahgi, interpreted "Europeans as manifestations of light-skinned beings, spirits, carried tools, valuables, social customs; the ultimate source behind such things and behind the power of social groups to reproduce themselves" (Strathern 1984:20-21). Strathern also says that the success the "white people had in swiftly pacifying

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populations who were engaged in chronic fighting, had much to do, throughout the highlands, with the fact that they brought steel tools and valuable shells, *and* also that they were credited with being the 'origin people' (in Melpa; *pulk-wamb* the true owners) of these items" (p. 21, also Strathern A 1970). According to Connolly and Anderson (1987), the general explanation used by the higlanders was that "the strangers were spirits-either reincarnated relatives and ancestors, or some other spirits disguised in human form" (1987:36, Leahy 1936, Leahy & Craig 1937).

It is worth noting here that while the "first encounter" photograph between Wahgi and white men show both of them armed (Connolly & Anderson 1987:196-197), they actually shook hands, as the old Wahgi custom dictates. Given Wahgi ideas about the protection of neutral people, the white men never came under danger, and this attitude enabled a handful of gold prospectors to travel in the Wahgi Valley at that time with honour, dignity and respect that was not matched elsewhere in Island Melanesia.

Missionaries; Christian God vs ancestral gods (spirits).

The goal of Christian evangelism, after first contact, was to preach the word of God to the very last highlands tribes. The missionaries were led to believe that the interior was inhabited by savage tribes practising cannibalism, multiple marriages, headhunting and endemic warfare. It seemed only natural for the missionaries to save lost souls and to prepare and lead them to the progressive path of civilisation. While the Wahgi people remained sceptical of these new religious beliefs, they nonetheless blended them into various aspects of their traditional life - including, as we shall see, warfare.

One way of interpreting the current resurgence of warfare is that many social practices that were seen as evil or as a kind of social disease by the administrators and the missionaries had been in fact suspended - and not abolished.- by the Wahgi people.

Furthermore, this resurgence shows that Wahgi warfare is not a consequence of contact with the outside world. Rather, it is connected to past relations and situations, as well as being deeply rooted in the belief system. In order to assess some of the historical, religious and ethnographic dimensions of warfare, I shall attempt to define what war means to the Wahgi people themselves.

Wahgi Concepts of Warfare

In outlining the concepts, practices and theories of warfare (Chapter 1), words like aggression, violence and warfare were discussed. The specific example on the imaginary Punk fight in a Cambridge Pub, as well as actual references to anthropological perspectives of warfare, served to demonstrate how persons within the same socio-cultural environment interpret in many different ways the same phenomenon. Certainly, the S. Wahgi phrase *opo kumbo* does not carry the same acts, images and meanings as the western anthropological definition of warfare noted previously. The concepts, beliefs and reasons of warfare used by the people themselves will be different from western anthropological perspectives. An essential component of indigenous contribution to anthropology would be to translate words in their own language which might share the same meanings to concepts like aggression, warfare and violence; a task I propose to present in the next section.

Aggression; 'the stomach is hot'. An aggressive person is labelled as the 'one with short intestine' (*enjsru singam paim*). A person who is engaged in the context of 'they do the bow talk' (that is arguing with someone which may lead to physical harm), is one who's 'short intestine gets hot very quickly' (*kumbuk mugk enim*). The result is that the words come out violently, in spasms like vomiting. However one does not expect a stomach to ache forever and nor does everyone feel the pain - it is the

individual who claims that he or she has an upset stomach. One can only blame oneself for eating the wrong types of food, so that by avoiding this food this condition can be avoided.

Those individual behavioural patterns which are described from a western point of view as violent and aggressive are related by the Wahgi (through the process of thoughtful discussion and the art of persuasion and consensus decision-making) to the process of food consumption, and this is why the analogy between food consumption and individual behaviour will be used to discuss the art of war talks. Individuals who are short tempered are described as lacking thoughts, compromise, and consensus, and unable to rationalise an opponent's words: They create imbalances with the community (see Melpa ideas of *popokl,* Strathern M. 1968).

Violence; to hit. The Wahgi word used to describe bodily contact with the intent of injuring another person is is to 'hit' *(toem)* or 'bodily contact' *(nginmaak).* To hurt someone is referred to as 'hitting with a stick' *(kapil toem).* The killing of individuals outside a formally declared war and away from a formal engagement in the battlefield is symbolically classified as 'they killed him with sticks' *(kapil toem).* This is illegitimate and improper by Wahgi standards. In some cases, it is often regarded as cold blooded murder and some of the ethnohistorical accounts (to which I will return) reveal that bitter wars were started by such actions.

The infliction of injury to another individual covers physical, spiritual and psychological harm. However, it ought to be mentioned that the individual behaviour is rarely seen from the self or ego point of view because there is no specific Wahgi term for describing the individual. A person is addressed as an *akamp* and this expression refers to a group of people. In other words, an individual's action is also a group phenomenon. For this reason, when an individual's intestine gets hot, it is often done for an 'underlying reason' *(yiu mem)* and it is often labelled as 'trouble-making' *(pund*

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esim). The group support for individual actions lead to organised stick fights known as *ngnmaagk kapil*. This type of fight is restricted to component units of a clan (subclans or Kanem groups). A third party within the same clan intervenes and prevents it from escalating into a proper war. When bows, arrows, spears are used in conjunction with the wooden fighting shields it is regarded as *opo kumbo*.

Warfare: Bows-protective walls. The S. Wahgi phrase *opo kumbo* stems from two words. *Opo* literally refers bows but in wider context it means to be aggressive, to provoke, to direct the offensive 'split talk' *(yiu pasik)* or 'smell talk' *(yiu murang)* at others with the intent to harm them. The term *kumbo* means structure that are erected for protection and safety. These include pig fences and house walls. In the context of war it means to protect, respond, defend and reciprocate war talks. The binary relationship between the two words require a wider culture definition and for the purpose of this research S. Wahgi warfare is defined as offensive (provocative; *opo*) and defensive (protective; *kumbo*) socio - political strategies.

The S. Wahgi warfare is also concerned with the moral debates and assesments. In a sense the bow talks *(opo yiu)* becomes a symbolic contest for restoring imbalances within the living world (among the people themselves) and between the living world and the divine spirits of the invisible landscape. To understand how the Wahgi war talk leads to physical confrontation, I shall outline the underlying themes of balance and imbalance.

Qualities of Wahgi life.

The definition *opo kumbo* stems from the underlying moral distinction between good and bad qualities of the Wahgi life. On the one hand the good qualities *(mambinem kaa)* represent the spiritual harmony between the people *(akamp)* and their

Kipe (spirit). On the other hand are the views about disharmony, imbalance *(mambinem kes)* and defiance of idealised relationship between people and the *Kipe*.

Good qualities. Among the Wahgi, the balanced relations between the self and the gods are often described as *mambenim kaa*. A detailed discussion of the conditions which separate good from bad is beyond the scope of this research, however *mambenim* means how one behaves in a culturally approved manner towards the others. Spiritual equality and balanced relations are the criteria for defining good qualities. The S. Wahgi conception of such relations is illustrated below

(a). Spiritual balance.

	Kipe /Minmaan		Spirit World
Akamp	Balanced relationship	*Akamp*	
Mambenim kaa		*Mambenim kaa*	Physical World

(b). Spiritual imbalance

	Kipe/Minmaan		Spirit World
Akamp	Imbalanced relationship	*Akamp*	
Mambenim kes		*Mambenim kes*	Physical World

Figure 3.1. The relationship between the people in the physical world, and between the people and the gods or between the physical world and the spirit world.

A threefold relationship exists between the individual *(akamp)*, the shadow-image *(minmaan)* and the gods *(Kipe)*. The term 'balance', to clarify, means the active interplay between the self and the invisible self or shadow-image. It is therefore a religious or spiritual equality, rather than a dialectic interplay between productive processes and the specific conditions of social relations.

Bad qualities of Wahgi life. In a different way the idea of wrong things becomes the opposite pair of good things, right ways of behaviour and proper talks. The term *mambinem kes* (bad or wrong) or *aka* (detour) refers to things and patterns of behaviour that are odd, illegitimate, unacceptable, and abnormal. When things go wrong, it is an outward expression that somewhere in the context of social relations, something has gone wrong. Any social behaviour that falls outside the boundaries of balance between people is seen as a temporary disruption between two individuals. It is also said to be a mirror reflection of the self's defiant attitude towards the gods and to create disharmony between oneself and one's shadow image. That individual drives the spiritual essence away from his own physical body, and this constitutes an act of sin against divine authority.

When crops fail, women do not have children, the people face misfortunes and the health is poor, the Wahgi go to every extreme - including *opo kumbo* - to reveal the things that are wrong *(yiap aka)* and to restore the things that are imbalanced. The binary relationship is that at one end is the cultural elements that constitute *yiap aka* (wrongdoings, detour talks and moral defiance), and at the other end is *yiu ni penim kesim* (revealing the talk to an audience, public confession or restoring the contrast in the process of pairing). These elements of balanced and imbalanced cultural conditions are explicitly recalled and debated in the context of war. Thus the ultimate objective of the war is that each of the opposite fight partners aims to seek divine justice and guidance in order to punish the opponents for creating imbalances. Against this background, I shall attempt to discuss the importance of warfare, given that - seen in a broader perspective - warfare is a way of restoring the unbalanced relationships that may exist within the community itself, and between the living and their gods.

Types of Warfare.

A further point needs to be raised about the types of warfare discussed in the anthropological literature of the Central Wahgi Cultures. The Wahgi *opo kumbo* is the only major form of formal combat that occurs between the maximal sovereign units (clans or Ka groups) on a designated battlefield (*opo pen*). However, in the anthropological literature a distinction is made between permanent and temporary wars. The first type of war is classified in the anthropological literature as 'major wars' (Strathern 1971), 'axe fight' (Rappaport 1968), 'permanent hostility' (Reay 1959) and/or war of the 'bird of paradise' (O'Hanlon 1989). The second type of war is often described as 'nothing fights', 'minor enemies', 'friendly war' and /or 'we fight against those whom we marry' (Vayda 1962, Strathern, 1971, Meggitt 1977, O'Hanlon 1989).

A division exist in S. Wahgi but it originates from historical relations. One is classified as the 'war of bird of paradise' (*opo karai*) or the 'brother war (*angam angam opo*) and the is described as the 'shadow brother' war (*yi gukum*) or 'nothing/temporary' war (*opo woi*). I shall outline the historical implications of the divisions.

The war of bird of paradise. In the origin stories, the association between the high level group names - Kuma, Dambnge, Nene - and the ancestral sites was demonstrated. It was proposed that all contemporary clans or Ka groups that orginated from a single ancestral parents classified each others as brothers. All the sons of Kuma Akmaagk are brother groups. Tangilka and Ta Kup are brothers. All Ka groups of Nene are brothers.

A war between a clan (Ka) of Dambnge & a clan of Dambnge, a clan of Nene & a clan of Nene, a clan of Kuma & a clan of Kuma is a 'brother war' (*angam angam opo*). It is also classified as 'war of the bird of paradise' (*opo karai*). I suggest that the

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term *karai* has more than a literal meaning (that of red Raggiana plumes) when applied to a war between brother clan groups. The secondary meaning of the expression stems from the idea of separation *(yiem yiem)*, to hide *(pu rai punem;* it has disappeared) and to disperse *(sike to si rai kesim;* they change them out to oblivion).

Since the word for bird *(kai)* is often used to describe maleness (terms for rats and possums are often used to express feminine qualities), it is clear that *opo karai* does not have a direct link to the warfare. My view supports O'Hanlon's additional suggestion that

> Raggiana wars are often said to have been between formerly closely related groups, and in describing them informants sometimes spoke of a Raggiana plume and splitting it, and wearing the split half. It might be argued then, that the relevant aspect of the use of these plumes in warfare is not their redness, but the fact that they are split, paralleling the division between two sides (p. 117).

Indeed, the war of bird of paradise is fought between the groups that share the same *minmaan* substance. One of the conditions relevant to the conduct of war is the imposition of stringent rules of 'separation' *(dop mapil)*. The brother Ka groups are meant to separate *(tai;* disappear) and maintain permanent relationship as opposite fight partners.

The symbolic importance of birds emerge from the signification of birds as males. Brothers are seen as the pair of wings of birds. As pairs of a single entity they are not expected to fight against each other. Birds cannot fly when their wings are broken. In the event of a war, the rituals and sanctions that are drawn to terminate any connections is referred to as 'the wings of the birds of paradise are broken' *(karai bake dom)*. The unison of brotherhood as a framework of equal status through the notion of inheritance of common substance from grandparents is not balanced. The notion of brotherhood associates with religious harmony and unity.

The ancestors in S. Wahgi are treated as gods, the source for all the social practices conducted by a succession of generations. Brothers have stronger connections with the divination substances and they share the sacred sites. If brothers do not like

each other, the source from which they obtain their commonalty and identity is questioned. Since they share the same worship objects, sacred sites and war talks which were meant to protect them from others, the difference between them is considered as the highest form of betrayal. It is then through the aid of the ancestral gods that the defiance of the common religious values contested in the battlefields. The ancestral gods will favour one of the groups and will force the others to migrate elsewhere. Since, brother groups do not exchange women, the initial *moss* war cannot be diffused through web of personal social relations and there were too few functioning social groups to act as deterrent to all out war. The disputes between brother Ka resulted in the bitter war of annihilation which involved permanent hostility; no regulations on the social conduct of war, rigid social taboos and indiscriminate killings which extended outside the formal battlefields.

The splitting of the inheritance of the common life giving substance has some association with the red colour. I would suggest that red signifies the religious aspects of Wahgi life. For instance, red cordyline plants and other plants with the natural red colour are often planted in the cemeteries. It is argued that red associates with the *Kipe* and *minmaan*. They are key elements which ensure the power among the individuals to judging the good and bad qualities of appearance and performance in warfare and other communal activities. The pervasive practice of pairing extends to colour combinations. I discuss some aspects of the colour symbolism in relation to the wooden fighting shields elsewhere (Chapter 7).

The phrase 'war of the bird of paradise' often refers to the state of permanent hostility between two brother groups. It basically means that two groups with the 'same base' formally try to lose or hide their inheritance of the common life giving substance (*minmaan*). In order to achieve this position they enforce permanent separation rules.

The 'shadow brother' war. The Ka groups of Nene, Kuma, Dambnge, Kisu, Minjnge and Singa, as indicated in the origin stories, emerged into sovereign entities after a initial *moss* period in which the affinal *(yi gukum)* relations were converted to metaphors like root, base and transplants (Chapter 4).

In Wahgi the expression *yi gukum* is derived from the root word *guk* which means to peel off the outer skin and /or provide a coverage for another object without a protective skin. For instance, the technique of splitting the timber to make a wooden fighting shield is often labelled as *kumbo gusim* (they peel the shield). I use the term 'shadow brothers' (comparable to outer skin brother) to differentiate it from the 'real brothers' *(angam angam)*.

The social status between the migrants and host groups are defined in a context in which a migrating group is said to be like a woman who leaves her own home and takes up residence elsewhere. But she rarely goes to an area of total hostility because the *yi gukum* groups carefully check out the possible 'routes' and negotiate a marriage through 'connected paths'. These connected people are normally the transplants of previous marriage transactions. In a similar way the migrations of a defeated group to a host group normally follow selected paths. Here I return to the origin story of the flight of Yuants and his wife (Wauge). to demonstrate how the Tangilka participated in a number of historical *yi gukum* wars.

The parallel between the expressions that describe war relations and the marriage transactions is demonstrated in the flight of the founding population of Tangilka and Ta Kup. Previously, I stated (Chapter 2) that the woman's talk regarding the consumption of banana was a metaphor which symbolised an alliance between the segments of Tangilka and the Tuimekup against the Enduka. A war may have been initiated and this resulted in the Tangilka being expelled from the former host group and the moved on to the Tuimekup territory. As recalled in the origin story, when Wauge (Yuants' wife) reached the source of the banana, she did not settled in the

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Tuimekup territory. Instead the Tuimekup acted as the 'connected people' and handed the Dambnge migrants to the other groups with similar names along the Tapia region. The Tuimekup explained that the migrants were not Kuma but they were Dambnge and they must join other Dambnge at the Tapia region. Certainly, one would assume that a migrant group would strengthen the size of host group's fighting force, yet the accounts seem to suggest that group identity and inheritance seemed more important than the politics of warfare.

In this case, the fragile relations between the Enduka and Tangilka that led to the migration of the Tangilka, may have been repeated between Tuimekup and Tangilka. It is possible that the Tuimekup may have fought against the Dambnge groups. Since the Tangilka was 'by virtue of birth' a Dambnge, the Tuimekup used this element of identity as a legitimate issue to expel the Tangilka and they joined the rest of the Dambnge in the Numants Valley.

Quite the contrary, whether the Tangilka are real Dambnge is questionable because the Kopanka were the path people who 'held the hands' of the Tangilka (*angik ambik to mogkim*), allocated land and initiated marriage transactions. The Kopanka was the donor and Tangilka the recipient in the religious transactions of the *minmaan* substance. A number of generations later, the founders of Tangilka and Ta Kup (Koingamp/Kaime) regarded themselves as transplants of Kopanka.

The Kuma people owe the Nene groups for (a) acting as path people and allowing them to settle down and (b) providing them with their sisters. Akmaagk married a Nene woman and therefore, the descendants of Akmaagk regard Nene people as shadow brothers. The Kuma inherit their *minmaan* substances from Nene and as transplants may have returned their daughters to the Nene people in order to balance moral debts. Meanwhile on the male line, they act as (a) root people to their father's sister's children (i.e., Kalambe Kup and Kugika) and (b) regard those who are

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agnatically related as brothers. Minjnge, Singa and Wilimbka were shadow brothers. The relations between Nene and Dambnge is classified as shadow brothers.

A war between a clan of Kuma & a clan of Dambnge, a clan of Nene & a clan of Dambnge, a clan of Kuma & a clan of Nene and so forth is defined as 'shadow brother war' (*yi gukum opo*). In anthropological literature it is often described as 'we fight against those whom we marry' (Vayda 1962, Strathern, 1971, Meggitt 1977, O'Hanlon 1989).

Some aspects of the difference between 'brother wars' and 'shadow brother wars' will be discussed in conjunction with S. Wahgi ideas on procreation, inheritance of divination substance and the notion of being in debt to the past sources (Chapters 4 & 5). In the next section , I outline the organisation and the conduct of the S. Wahgi *opo kumbo*.

The organisation of Wahgi Warfare

In order to simplify the various combat procedures, I shall outline some aspects of the relations between the fighting groups, including distinctions between the political units and the fighting forces, the composition of the shield carriers and arrow men within the force, and the role of the fight root men.

Political units. Generally tribal warfare lacks a centralised war-making unit. The common view is that the acephalous societies in the highlands recruit every able man within a political unit to participate in warfare. Every man is a warrior, engaged in what could be described as 'total war' (Fuller 1968:31, Hallpike 1988:112, Koch 1977, Brown 1972). In most cases, ethnographers assume that the partilineal clans are also territorial and war making units. However, Feil (1987) acknowledges that the size of the groups that usually engage in warfare is difficult to determine in the highlands. He

notes that "despite the existence of large political units the effective fighting forces in Western Highlands (including S. Wahgi), under regime of a restricted warfare, are likely to be small" (p.73). Indeed, in S. Wahgi there is a difference between the maximal war-making political units and the minimal social units in which the fighting forces are recruited. I discuss the S. Wahgi group structure elsewhere (Chapter 6).

Opposite fight partners. The term enemy is translated into the S. Wahgi language as the 'other part of the bow' or described as standing at 'the opposite end of a bow or represent split parts of the same bow' (*opo yiem yiem*). The paired relations are illustrated in the following diagram.

Fight partners

Clan A (Ka)	Clan B (Ka)
Opo yiem (one part of the bow)	*Opo yiem* (the other part)
Pund puk yi (trouble root man)	*Pund puk yi* (trouble root man)
Gom yi (dead man)	*Gom yi* (dead man)
Opo kaijen (bow birds; allies)	*Opo kaijen* (bow birds; allies)
Yi ka (man of another base)	*Yi ka* (man of another base)

Figure 3.2. The war relations between principal combatants and their allies. This model links to the idea of paired relations.

Although it may be two Clans (A & B) who organise a war in a ceremonial context, the actual combat responsibilities are carried out by some of their component units. These social groups stand in relation to each other as 'fight root men' (*pund puk yi*) and 'dead men' (*gom yi*). The allies are described as 'our bow birds' (*opo kaijen*). When warriors from the ally clans are killed they are labelled as the 'death of a man from the other base' (*yi ka gom*) and this leads to subsequent compensation payments described as 'we take man's head' (*akamp yi simen*).

It should be stressed that not all of the ally clan provides support to a principal fight partner. Rather, those are only some fighting forces within the sub clan groups

which form partnership with the fighting forces of the major initiator of war. Unless the ally group shares adjacent territory with the opposite fight partners there is not central support such as the creation of a battlefield by the allies themselves to draw the fight away from the principal opposite fight partners. The allies will have their own battles with their principal enemies. They expect the previous warring groups to reciprocate the kind of support they were able to give at the time of the previous war.

The 'fight bundle' forces. The fighting forces are much smaller than the size of *yi doogum* units (Kanem 1+2, see Chapter 6). Only a handful of men constitute a fight 'bundle' (*opo kupan*) and this term recognises the need to reduce a *yi doogum* unit into a small, effective, well-coordinated and controlled fighting force. Hence the fighting force is like a bundle of things which the individuals will be able to transport from one location to another.

In differentiating the socio-political units from the fighting forces, I also stress that the majority of the population is not actively engaged in any physical combat or confrontation. On the other hand (and as we shall see later) the role of the public in approving or disapproving the shield presentation made to them is fundamental. For lack of space, I will not be able here to consider in any detail the substantial role played by woman and wives, with their various expectations and contributions, to the ceremonial and practical aspects of the *opo kumbo*.

The shield men. The fighting force itself is divided into a number of categories. The broad division is between the shield carriers and the arrow men. Within the shield men category, there are the right hand and left hand men. The two other categories are the 'fight husband' and 'the bone men of the wooden shields'. These are the shield carriers who constitute the frontline men and they engage in combat fighting. The fight husband is the leader of the fighting formation which leads or the 'one who drags' his

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own force to meet the opposite fight partners (see plate 19). The bone shield man is one who attempts to provoke the tactical manoeuvres in response to the opposite number's actions in the shield formation. More information on the material and symbolic aspects of the shields will be provided in Chapter 7.

The arrow men. There are two categories of arrow men. The first category consists of no more than 10 arrow men who fire arrows at each other and allure the shield carriers to move close to within spear jabbing distance. They are known as *mor moki* and they accompany the shield carriers. The second category consists of all the able warriors who may be seen to be carrying spears, axes, bows and arrows. This is more an indication that a group is in the process of making war with opposite fight partners than an actual fighting force. The implements used then are more part of the decorative attire than lethal weapons. I have noted and encountered many arrow men who have not fired any of their arrows during the entire sequence of a war. They are often classified as the 'base' of the fighting force. Having set the general military structure and relations between political units, I return now to the chronological context of Wahgi warfare.

The cycle of Wahgi warfare

The presentation of the cycle of *opo kumbo* is divided here into two sequences; the overall organisational strategies which last for several decades, and the conduct of war as a major cycle with its own rules of presentation and codes of behaviour.

Stage 1. Preparations for War

1.1. Period without war (*moss kunum*)
1.2. Dispute resolution (*yiu tangim*)
1.3. Secret war meetings (*opo ol sim*)
1.4. Wealth reduction ceremonies, moral debates (*opo yiu kosim*) and production of weapons

Stage 2. Conduct of war: Actual confrontation in the battlefields.

Phase 1. Pre war preparations.

    1.1. Cause trouble (*pund esim*)
    1.2. Eating the bow banana (*opo tau ngom*)
    1.3. Public confession (*yiuni penim kesim*)
    1.4. Revelation of opponents wrong doings (*opo yiu posim*)
    1.5. Wooden shield displays (o*po kumbo ngom*)

Phase 2. Actual engagement

    2.1. Arrow men fight (o*po mor moki esim*)
    2.2. Techniques of shield fighting (*opo kumbo ngunts pum*)
    2.3. Final duel: cross jabbing spears (*opo kugang manga*ke)
    2.4. Chase and run technique (*opo tumbuk pum*)

Phase 3. War deaths

    3.1 **Mourning ceremony.** Death man's group *(gom yi)*

    3.1.2. Call the shadow image *(minmaan wi toem)*
    3.1.3. Funeral: Eat the shadow image possum (*minmaan kamp ngom*)
    3.1.4. Public confession; shield displays (*opo yiu gusim*)
    3.1.5. Paint war *(tol opo esim)*

    3.2. **Victory Ceremony.** Killer's group *(toem yi)*

    3.2.1. Victory dance *(wi konjspik enim)*
    3.2.2. Purification rites *(akamp tosip ngonem)*
    3.2.3. Shield displays *(manger ori kerim)*
    3.2.4. Paint war *(tol opo esim)*

Stage 3. Peace Ceremony

    3.1. Third party peace negotiation; taboo substance (*opo milt toem*)
    3.2. Beat the bow drums (*opo gising toem*)
    3.3. The nose rubbing ceremony (*ngumb kaimb esim*)

Stage 4. Compensation payment

    4.1. Pigs for the wooden shields (*opo kumbo kong*)
    4.2. They take the men (*kamp yi sim*)
    4.3. Rewards (*yi memekem esim*)
    4.4. They tie the pigs at the stake (*kong makal esim*)

Stage 5. Festive ceremonies associated with the *moss* period (wi *angiep, wubalt* and *kong gar*).

In the above sequence, the conduct of war is limited to the second stage and involves the ceremonies associated with battle plans, public confession, rituals of war death, and general organisation as well as collective participation in the daily military and social strategies. I shall describe the overall pattern of warfare and then focus on various themes relevant to combats in the battlefields.

Stage 1.1. The *moss* period. A period without war is often described as *moss panjip* and this cultural expression refers to a particular period in Wahgi history (1600 AD-1700 AD), and more often the term is used to refer to periods in which the rules of avoidance between the warring factions are lifted after a period of war. The former enemies travel freely and participate in various ceremonies organised by either one of the groups within their tribal and religious boundaries. I shall define the contextual and historical implications of the *moss* period elsewhere (Chapter 4 &5).

Stage 1.2. Dispute settlement. During a *moss* period, conflicts, hostility and confrontation occurred among individuals from within the same group and also between the clans (*yi doogum;* see on that Chapter 6). There were, however, ways of resolving such conflicts. Basically it was understood that *Kipe* (spirits) would punish the wrongdoings through poor health, poverty, hunger, infertility of breeding animals and women, poor soil nutrients, and death. When the symptoms of concealed moral defiance were visible to the community, the members felt that inner moral imbalance rested upon the individual's own fault against another individual, his *minmaan* (shadow-image) entity and the past divine sources. The resolution of the problem was that the injured parties discussed the underlying faults, then dedicated offerings to the gods and ate the 'same food' prepared in the 'same fire' for the occasion.

If the imbalances occurred between *yi doogum* units, the common conflict resolution method was through a public debate known as 'we do the talk' (*yiu

tangnamin). It could be a woman's talk, or a pig talk and would be dealt with whatever way the source of the dispute between two debating parties. Some aspects of the conflict solving procedures are described.

The victim group and the offender' group assembled at their own central activity place and invited a third party group to act as arbitrators. This group consulted the principal protagonists and then carried back and forth the confrontational debates between the two groups. Depending on the proximity between the disputants, such negotiations lasted a day or for several days.

If the peace mediators were successful, a compromise was reached and some form of damages payments were exchanged. However, the amount of compensation that was accepted or awarded to the injured party was often determined by two contradictory factors. On the one hand, the victim's group assessed its own moral conditions before taking retributive actions in some form of aggressive and hostile behaviour, to force the offenders to compensate. On the other hand, the offenders group's decision to pay may be based on the fact that the victims deserved to be punished, owing to previous breaches of divine equality. But in doing so, the offenders also upset their own balanced relationship with the *Kipe*, and were likely to drive the *minmaan* away from it's co-existence with the physical self. This paradoxical situation created a self-restraining condition and indeed it was pointed out to me that compensation payments were not paid for the sake of resolving the problem but because the fear of punishment from the gods was such a powerful mechanism that ensured a compromise. Thus, applying this principle to the nature of warfare, groups were not prepared to stage a war unless they felt that there was a legitimate and divine justification for it.

Stage 1.3. Secret war meetings. The moral debts created by individuals or groups, which went beyond the acceptable means of resolution, became the concealed

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source of knowledge. It was classified as 'they hold the war talk' (*opo yiu ambisim*) and once there was divine grounds to punish the wrongdoers, the possibility of a war was signaled by the conduct of the 'secret war talks' *(opo ol sim)*. The members of the potential *opo kupan* forces assembled in their sacred sites, normally where the divine fighting objects are stored (Chapter 3 & 8).

The objective of the meeting was to assess whether in the course of the war, the gods would help secure a moral victory against the opponents. In the event of an approval of a war, the rest of the members of a sovereign group were told to prepare for wealth reducing ceremonies.

Stage 1.4. Wealth reducing ceremonies. After a long period of *moss* and before the staging of a *opo kumbo*, the normal procedure was to organise major wealth reducing ceremonies. The pig kill ceremony was often seen as an indicator of a possible war. The two rituals in the *kong gar* ceremony which had direct relevance to war were the initiation of the young men into the warriorhood and the special offerings made to the gods in recognition of the harmony and peace enjoyed during a *moss* period. The ceremony called 'the pigs for the gods' *(Kipe kong)* is discussed by Lutzbetak 1959, Reay 1959, 1988, O'Hanlon 1989, Adams 1954, and Trompf 1990.

Furthermore, during the course of the above activities orators released war statements at the public gatherings. The deliberate process of warning the enemy in advance was known as 'they knot together the war talks' *(opo yiu kosim)*. There were other connections in which the war talks were exchanged. The 'root' and 'transplant' kinship connections provided the 'path' for throwing the message back and forth. Also the females married into the potential enemies acted as messengers and spies. The exchange of information was known as the 'war has vines' and 'connections' *(opo kondom kanem)*.

Once all the wealth reducing activities and the debts between the potential enemies have been balanced (or at least one of the two groups thinks that it had repaid all the material as well as moral debts), there was a dramatic change in settlement patterns; from scattered ones to compact and defensible ones. Villages scattered along the boundary regions were moved to the interior and to more strategically secured places, while new gardens were planted away from the battle routes, and sometimes even in the ally's own territory.

The preparation for war intensified and the exchange of war talks between the two groups escalated into the 'word of wars' (*opo yiu tangim*). At that stage, the potential fight partners were already prepared for war, and it was only a matter of time before the fight root men initiated the combat. Some of these aspects are discussed in the build up to the Konombka and Kondika war (Chapter 8).

Stage 2. The conduct of war.

A simplified way of viewing the conduct of war is to extend the notions of paired entities to the conditions prevalent to combat and physical engagement: during that time some practices have reciprocal elements, while others are based on complementary relations.

A reciprocal relation means that during a battle session both fighting factions perform identical rites. If a fight partner's ceremonial site is destroyed, one will try to inflict the same amount of destruction on the opponent's ceremonial grounds. If one destroyed the other group's sacred sites, the other group will respond in a similar manner. If one group performed a rite on the battlefield the other will reciprocate with similar performances. A display of wooden fighting shields by one group is followed by a similar display from the opponents.

A complementary relationship is a condition in which one group performs one set of rituals and the other group responds by conducting slightly different rituals. While for most of the war period the battle rules based on reciprocal relations are used, the occurrence of war deaths leads the victim and offender's group to follow different patterns of performance and public appearances. The conduct of war from Phase 1 to Phase 2 is based on reciprocal relations, while Phase 3 is based on complementary ritual performances.

Phase 1.1. Causing trouble. Once a warring group has assessed that its fighting force is ready for a war, there occurs a further war meeting in which the role of 'fight root men' is allocated to a particular fighting force. The phrase *pund puk yi* (fight root men) refers to the *Kanem* who will deliberately provoke and initiate the war. To be selected as a 'fight root men', a group needs to meet a number of conditions: (a) this group must have minimal connections to the opponents in terms of the root and transplant kin categories; (b) it should not share the same root or divination substance and (c) it must be evaluated by the other fight bundle groups to have a balanced relationship with the gods. Besides that, the group chosen to be the fight root men must have concealed enough war talks or wrongdoings of the opponent so that they can lead the war knowing that the gods are on their side.

Based on some of these features the fight root men are allowed to cause trouble and this was referred to as *pund enim* (interacting with another individual with the purpose of bringing misery and unrest to the community). The excuses for the initiation of war carried out by the fight root men can be anything from adultery, theft to land disputes and deliberate provocation by killing someone outside the battlefields. A particular instance of such deliberate 'trouble-making' will be discussed in connection with the Konombka and Kondika war (Chapter 8).

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Phase 1.2. They eat the bow banana. Soon after the fight root men from Clan A and Clan B caused trouble, a third party (knowing that war was the likely outcome), still attempted to negotiate peace by conducting the *yi tangnamin* procedure (Stage 1.2). If the protagonists want to use this occasion to start a war, the orators would exchange provocative messages known as *yiu pasik* (split talk) with each others. For instance, the victim's group would deliberately demand very high compensation, anticipating that the offender's group would not be able or willing (on the grounds of divine justification) to meet these conditions. Obviously, this would make it impossible for the third party to secure a compromise and to defuse the explosive situation.

The debates led to heated exchange of verbal abuse and at the end of the day, the injured party declared its intentions in a war statement; 'the boys are coming, you meet them at the battle space'. The opponents normally accepted the challenge, and the two groups returned to their sacred site. The fighting forces from Group A and Group B conducted their pre-war rituals for the formal declaration of *opo kumbo* in the battlefields the following day.

The pre-war rituals are conducted in the respective subclan's 'war eye houses'. These round houses stored the sacred objects of war, which included materials that signified previous war deaths, prehistoric artifacts (stone mortar, pestle, marine shells) which were revealed to the present generation by previous ancestors, and curative medicinal items for psychological and physical injuries. There were two enclosures to the sacred round house; one was the inner circle which surrounded the house and the other was the larger enclosure with an open space for conducting the rituals of war. The individuals who were classified as 'bow netbag man', 'fire taboo person' and 'keeper of the objects of war' were permitted to enter the inner enclosure of the scared site.

The activities in these sacred sites included the painting of the wooden shields, rites of public confession, the recalling of the opponents divine imbalances and the revelation of such concealed war talks to the *opo kupan* unit, and the dedication of pigs

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to the gods for assistance in the forthcoming war. The most important ceremony was the transformation of the non-war social conditions of the community into a period of war. The objective was to grease the fight objects and change the image of the wooden shields from their ordinary position into symbols of divine power; in which they were meant to interact between the people and the gods.

A pig was killed and cooked in a pit oven. The raw heart, liver and some of fat were handed to the fight guardians. They roasted them inside the house to extract the liquid and then greased the objects. The charcoal from burnt wood inside the 'war eye' house along with a portion of the grease were handed to the warriors outside the small enclosure. They greased their fight weapons and smeared their bodies with a mixture of charcoal and fat, for the first shield display to the audience. While the pork was still in the oven the war talk session commenced. I shall elaborate in detail the war of words (Chapter 8, Konombka & Kondika war). The principal components of war speech categories are 'wrongdoings' (*yiap aka*), 'they hold the war talk' (*opo yiu ambisim*) and 'they peel the war talk' (*opo yiu gusim*).

Phase 1.3. Public confession. There are two social practices which from a central part of the conduct of war. The rituals of public confession and the displays of wooden shields continue every battle day for the entire duration of the war. At the initial opening ceremony of a war, and thereafter, each warrior is required to confess his own sins or any thing he had done during the *moss* period which come under the conditions of *mambinem kes*. These accounts of individual or group immoral behaviour can be a few hours old during a war such as boisterous acts or swearing at the opponents and/or they refer to historical moral disorders when can be traced to the time of the origin stories (Chapter 3).

Every time a warrior revealed that he committed an act of defiance against the Wahgi notion of *mambinem kaa* standards, the fire taboo person shredded the stock of a

banana or a straw of *esik* plant as a tally for counting the individual confessions. After all the confessions have been heard, the items that represented the sins of the groups were bundled together and tied to an 'arrow' (*opo ngamb*). This ceremony was described as 'they cut the sugar canes and bananas' (*omb to dje toem*). The reason for public confession is summarised in the following statement.

> Em olsem mipela i autim sin, na ol birua ino ken kilim mipela. Sapos mipela ino autim sin, ol bai i holim toktok i stap na kilim mipela.

> We confess our sins because we do not want the enemy to kill us. If we do not confess they will hold the talk against us and continue to kill us.

The ritual that surrounds the war talks is almost like a hide and seek game, but underlying this game are the issues of balanced and unbalanced relations among the people themselves, which is also seen as a mirror reflection of relations of domination and subordination between the groups and the people.

Phase 1.4. Revelation of the concealed talk. The next stage of the war talk required the revelation of the moral wrongdoings done by the individuals in the enemy clan. The war guardians revealed these wrongdoings through war talks that were held over many generations. They enlisted the gods to assist them by stating that the opponents had violated the balanced conditions and must be punished for their wrong doings.

As well, the fight partners were well aware of the existence of various social deviants during the *moss* period within their respective fighting groups. In some instances, there had been plots and counter plots on both sides to get rid of those who bring problems and misery to the community. It even happens that undesirable social deviants are deliberately selected as prime targets, either because they are known to the opposing fighting force, or because they have been betrayed by their own clansmen. The design and decoration of the particular shield that these 'social deviants' will use

singles them out, and in some cases this information is exchanged across the fighting opponents for their mutual advantage.

After the public confession and the revelation of the sins of opposite fight partners, people went to the battles to punish those who had contravened the accepted principles of harmony, goodness, sharing and an ideology of equality. In this manner warriors said that the weapons had eyes and reached their targets. This was made clear after an interview conducted among the Melpa people, asking whether they were afraid to die.

> Mipela ino pret long i dai. Ol samting bilong pait igat ai. Sapos man i dai long ples bilong pait, em ino dai nating, sin bilong em yet i kilim em. (G Roimb. Minimbi Ropkae T/T 1989).

> We are not afraid to die. The weapons of war have eyes. If a man dies in the battlefield, he does not die because of the fight. His own sins punish him.

Though my primary research was conducted among the S. Wahgi people, the intensity of warfare during the research in the region prompted me to look at the nature of warfare at a regional or cross-cultural level (Melpa, Chimbu and Middle Wahgi). The above statement reinforces the views I gathered from the S. Wahgi and Chimbu people. The underlying message is that in the event of a war death, it was the victim's group that pleaded guilty. Deaths in war are justified by blaming the victims or their immediate group for their own faults. In short, to die on a battle field was to be punished because of the wrong doings of individuals themselves in their life time, by the extended family and by the sins of the ancestors at every generational level.

The pre-war ceremony concluded with the consumption of the pork and the food prepared in the sacred site. The period of war was officially recognised. I distinguish a formal war from other minor skirmishes due to the fact that the wooden shields, as religious objects were formally introduced into the public and thereafter they were constantly used in the battlefields.

Phase 1.5. They show the shields. The next stage involved the formal presentation of the wooden fighting shields to the enemies and to the crowd of spectators. The sacred sites were often placed in strategically visible areas so that after the completion of the 'bow banana' ceremony, the performing group burst out of the enclosed area and charged along the ridges. Their appearance was visible to both the enemies and the spectators from neighbouring groups.

If the audience assesses that the shields look bad (in terms of decoration, movements and synchronisation - see Chapter 7) the performing group is told to withdraw to the back lines to allow another *opo kupan* to commence the war. The groups whose public appearance was not war-like returned to their sacred sites and dug deeper into their history, and confessed underlying causes before they faced they opponents. The wooden fighting shields were used after the public confession rites, and this was done in order to assess the moral qualities of *mambinem kaa* and *kes*. The spectators, whose assessment of the pre-combatant performance was an important contribution to the outcome of a potential victory or defeat, were more concerned about appearances in the battlefield than about the combats themselves (see Chapter 7 & 8).

Phase 2. Actual engagement.

During combat each *opo kupan* unit assumed different responsibilities; one unit fought in the front line; another took the role of 'suprise attack' or a decoy (*opo bamin*) and a third group acted as a standby or backup unit *(opo pinam)*. Each fighting force took turns in various war responsibilities throughout each of the battle days.

Before the fighting force was engaged in war, the war leader announced a summary statement of the lengthy public confession carried out previously in the scared site. Before the war chants, cries and songs intensified, a warrior who was chosen as the war caller (*opo wi toem yi*) chanted the cry and the group advanced forward to meet the opponents.

The *opo kupan* which was to confront the opposite number, moved forward with the shield carriers forming in two rows, in which the left hand shield carriers were on one side and the right hand men on the other. The guardian of the divination fight objects led the *opo mor moki* and *opo kumbo dam* into the battlefield. When his *opo kupan* was face to face with the enemy, he fired two arrows in the direction of the enemy (one represented the confession and the other the concealed war talks). Also the *opo kupan* unit may take a live animal and kill it at the spot where it intended to do the *kugang mangake* duel. The club used to kill the animal was layed across the path and then the *opo kupan* unit retreated to their end of the battleground. This ceremony is called 'they kill the war path pig' *(opo koko kong toem)*.

The opponents conducted their confessions, allowed the war caller to initiate the war, then the group responded with collective war chants *(wi konjspik)* and advanced forward to the position reached by the opposite *opo kupan*.

Phase 2.1. Arrow men. After the guardians of the wars objects completed their rites the actual fighting commenced. It was normally started by the *opo mor moki* supported by a young group of shield carriers often categorised as *kumbo doog* (straight shield runs) because of their ability to run back and forth with the shields, and sometimes operating in partnership with the arrow men. The arrow men ducked behind the shields and fired arrows at the opponents direction. If one group of arrow men gained territorial advantages and moved the opponents back in to their own battle space, it often invited the shield men to form a wall, and push back the advancing force. In this hit and run situation, the primary objective of the arrow men was to draw the shield carrier to come closer and closer to within spear fighting distance.

Phase 2.2. Techniques of shield fighting. There are a number of shield formation techniques. These include the 'square' *(kumbo ngom)*, U shape *(kumbo kaum)*,

the circle *(kambin kumbo bosim)*, and the triangular formation *(kugang mangake esim)*. Each of these formations is associated with a particular aspect of the war ritual and the main fighting technique is the close combat duels. But it needs to be clarified that the way the shields are produced as protective devices, allows one shield carrier to execute a minimal attack on the opposite number. Of course, the objective is to restrain the individual from going beyond the protocol of coordinated fighting and at the same time prevent the opponent to reciprocate any offensive spear strikes.

The two common movements are (a) to move the shield vertically back and forth along one side of the body and (b) move horizontally across to face towards the exposed side of the body. The first and most important rules that a novice learns about shield fighting techniques are (a) cover the entire half of the body, (b) use only one eye (the exposed side) to judge movements and (c) control the upper segment of the shield without moving the leg of the shield *(sipin)* forward or backward while the shield is in upright position. Other set piece moves are not widely recognised but individuals can adopt suitable ways of moving the shields while they are in upright positions.

The shields cover one side of the body. It is the shield formation itself which gives the entire coverage for most shield men. The warriors block one eye with the protective coverage of the shield and therefore their full visibility is distorted. The shield formation and tactical manoeuvring at close range requires close cooperation between the left hand and right hand carriers at the frontline. In fact the direction of spear throw is guided by either the left or right hand man depending on who is to throw the spear and in accordance with the rules of 'cross-jabbing spears' *(kugang mangake)*.

The natural position for jabbing the spears at the enemy's shield is to aim at the leg. It is bodily movement which ensures that the carrier retains maximum protection from his shield. To lift the shield above the knee and to throw it parallel to the hand or above the head would require body movement in which the frontal part of the shield carrier is exposed to the enemy (see Plates 7, 8, 17 & 18). Since the spears are thrown

towards the leg of the shield, it is often the case that the opponent will try to deflect it by lowering the shield to the earth surface. A black colour painted at the base of the shield can often blur the aim of the spear thrower.

When the row of shields is in formation, the shield men behind the front line depend on the judgement of those who face the opposite fight partners. In order to retain a continuous form, balance, harmony and co-ordinated movement each shield carrier follows the movements of the leading left and right hand men. Falling out of the formation can result in chaotic withdrawal at the time soon after the duel defined as 'cross jabbing spears' against the opposite shield men in the frontline. In circumstances where one group was in hot pursuit of the other, the carriers of the withdrawing fighting force discharged the shields and ran back into their own battlefield. The price of 'stealing shields' (*kumbo kunumb sim*) from the opposite fight partners is often seen in terms of either a success in a combat or a failure for those who have lost the shields. But the winners gain only a few metres of territorial distance and in the next battle they may loose it to the opponents (see Chapter 8).

Phase 2.3. Cross-jabbing spears. The climax of the shield fight is referred to as *kugang mangake*. This is an attacking formation. The shield carriers from both fighting forces close the gap to within spear throwing distance, either in a 'U shape' or 'triangular formation' (see Plates 9. 10. & 19). The line up of the shield formation involves the pairing of left and right hand shield carriers. As they move close and are no more than two metres apart only the right and left hand persons of each group must face each other for the challenge. In the duel the right and left hand persons are expected to co-ordinate simultaneously so that their exposed sides are covered by each other's shields. The rule is either to jab or throw (if one has an extra spear) diagonally- cross pattern -like the cross at the mid point of the surface of the shield, at each others shield

in an attempt to expose the body or dismantle the opposite challenger's shield off the shoulder.

To lift the spear above the head or to hit the opponent in front rather than across is to expose oneself and the other partner. This unexpected move will require re-adjustment of the set piece formation of those who are lined up behind the front row. This can be disastrous. In most instances, spears are thrown at the bottom of the shields which provides coverage for the thrower and allows the opposite number to reciprocate the action.

In order to counter-balance the shield and break the spear tip or instantly deflect the blow at the moment of impact the recipient pulls the hand rope towards the exposed side so that the shield must rotate. The curling or swirling movement allows less penetration of the spears and enables the carrier to counter balance the disproportioned upright shields. The shields are carried on one shoulder of the body in upright positions. The weight has to be balanced on one side by the hands on the control ropes. The range of fighting weapons that carriers are able to hold in their free hands is limited to a spear and an axe. Essentially, the carriers are trapped behind the shields by the weight (one hand is stationary and must always be at the control ropes) and they are in an inadequate position to use the free hand to throw spears at opponents shields in any desired position. The close hand to hand, shield fighting encounters are very brief (not more than 10 minutes) and arrow men also fire arrows in each other's direction for a short duration.

At the end of the day the wooden shields are displayed and the 'war call man' signals two chants known as (a) 'he yells and releases the air through the throat' (*wi to ekepu dom*) and (b) 'he yells and contains the words in his throat' (*wi to ngomin aak mim*). The first call indicates that the warriors in the war chanter's group have received light injuries. The second call is to inform the opponents that there have been some serious injuries and in the case of a death, the victim's group will release the names later

(see genealogy of war death, Chapter 5). If a death had occurred in the battlefield, the victim's group is expected to announce it at the end of day.

Phase 3. War deaths.

If a death occurred in the middle of the shield fight, and the victims group retreated without the body, a third party group returned the corpse to the relatives for funeral rites (see Plates 23 & 24). In the traditional fights, only a few men were killed in a single encounter and in some instances, the war lasted for several months or even years without war deaths. I describe some aspects war death and victory ceremonies.

Phase 3.1. Victim's group. For the victim's group, the first rule is to formally announce the name of the warrior, the group which was responsible for the death and the revelation of the likely cause, which is thought of as the concealed talk that has been used by the killer's group, as a source of divine justification for killing him. This was carried out during a ceremony in recognition of the deceased warrior which involved the deployment of shields in a circular formation at the scene of the killing. This is often described as 'they form a circle wall'. It is believed that when a warrior is killed instantly, the shadow image escapes suddenly and stays where the incident occurred.

The objective of the victims' group is to form an enclosure at the scene of the death and invite the shadow-image to come with them back to the proper burial place. An animal was taken to the battlefield, and while the shield carriers formed a circle, the person who was to be appointed as the spirit bearer burnt a bit of the hair of the deceased in an attempt to allure the *minmaan* to smell the smoke and follow the the trail back to the burial place. The spirit bearer ate the animal dedicated to the *minmaan*, and later was referred to as 'the man who ate the *minmaan* possum'. During the entire war,

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and for most part of his lifetime, the shadow-image bearer was in no circumstances allowed to come in contact with the enemy. If he died the responsibility was passed on to another person, and then the war death was represented by material objects.

Phase 3.2. Killer's group. Meanwhile, the killer's group showed their jubilant mood and humiliated the opponents by singing abusive war songs, chants and dancing with the normally square shield formation (see plate 12). After their victory ceremony in the battlefield, they also returned to their scared site to perform a series of rituals known as 'they killed the person and are eating them'. The main objective was to purify the killer from the *minmaan* of the deceased enemy from haunting him and to honour the gods for assistance. A huge pig was killed during this ceremony. The liver and heart of the pig was removed and cooked on a specially prepared platform. The fresh meat was steamed and was given to the warrior who struck the first blow. The rest was oven cooked was distributed among the crowd, but portions of the meat were not given the rest of the population. After the ceremony they displayed their shields to an audience and then waited for the victim's group to conduct all the funeral rituals and then stage the next battle known as the 'paint war' *(tol opo)*.

Stage 3. Peace ceremony.

It is difficult to define the duration of wars between the fight partners. In some cases (like 'the brother' groups) there exists a permanent hostility that lasts for several hundred years. In other cases (as the wars against the 'brother in-law' groups) wars were fought for a short duration: Each brief bout of war was brought to an end, followed by a period of *moss,* and back again. In both cases, however, it was the intervention of a third party group that brought a formal war to a end.

Stage 3.1. The taboo substance. The formal stage of war lasted several years and/or even decades. The formal way of ending physical engagement was the intervention of a third party group which set to erect the taboo substance *(milt)* throughout the battlefields. An interesting example of such intervention is presented here (Plate 3). The placard, `planted' in the battlefield, is written in Tok Pisin. It reads;

> Pinism pait bilong Kondika na Konombka. Olsem na ol man i sakim tok bilong Gavaman, ol i sakim tok bilong God tu. Olsem na bai ol i kisim pe nogut bilong ol yet (Rom 13:2).

> The Kondika and Konombka fight must stop. Those men who disobey the government, also disobey God. Therefore they will receive their bad rewards (Romans 13:2).

This placard is interesting because of the unique combination of authorities and belief systems it refers to. Most obvious is the presence of the Christian God. Warfare is disapproved of by God and its missionary envoys, and it is God's divine justice that will punish the wrongdoer. Unequal relationship between God and man is inherent to Christianity because it is believed that god created man.and that man must worship the divine creator. Moral order and disorder are based on the philosophy of 'original sin' (Montagu 1971:33). At the same time, the authority of God extends (or is extended) to the government, which has its own system of laws and sanctions. Lastly, the placard displays also an indigenous symbol of peace. This is the taboo substance known as *milt bol* (ferns), often erected by a neutral group at the boundary of the battlefield. This taboo substance, of the highest order of moral and religious sanction symbolises the willingness of the third party group to bring the opponents together by conducting a peace ceremony which would bring the war to an end.

Indeed, opposite fighting forces would not dare to break the sanctified rule established by a neutral group with divine guidance. The first group which crossed the battle zone divided by the taboo substance disobeyed not only the order of a third group but committed an act of moral defiance. The opposite fighting force would use this occasion as a divination trial to achieve a divine verdict, and in the event of an ongoing

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war the offender group was expected to face defeat and out migration. In addition, the neutral peace-initiator group that erected the defied taboo substance was obliged to join force with the groups that obeyed the peace truce and attack the trouble makers who violated it.

Stage 3.2. Beat the bow drums. While the taboo symbols were in position the peace making groups returned to their own territories and initiated a ceremony known as 'they beat the bow drums' (*opo gising toem*). This ceremony is similar in nature to the organisation of the *kong gar; wubalt, wi angiep and mogknge bilt* festivals. There exist excellent accounts of the organisation and conduct of these ceremonies (see O'Hanlon 1989), and a detailed discussion of this topic will not be undertaken here.

The main feature in the *opo gising* ceremony was that the peace making group performed their *gol* dances at their home ceremonial dance grounds and during each dancing day, they advanced or reduced the distance between their dance ground and the battlefield where they had placed the *milt* substance, until they reached the proximity of the battlefield. For instance, in the early 1900s, the Tangilka participated in the *opo gising* ceremony to end the Kusilka and Konombka war. The Tumba-Tapia region is more than 10 kilometres from the Kamang battlefield, at the headwaters of Minj River. In order to reach Kamang, they performed their *gol* dance and advanced westward, across the territories of the Kamblika, Muruka, Kugika and Kondika groups before they reached their destination (Galinga T/T 1990, Alki T/T 1990, K. Waipek T/T 1990). It must have taken more than a year to complete the ceremony.

Furthermore it should be emphasised that the distribution of the pork meat is quite different from the *kong gar* ceremony. While in a *kong gar* ceremony the pork is filtered by the individuals to their own network of kin relations, in the *opo gising* ceremony the peace mediating team distributes the pork meat and the other items of wealth only to the former enemies.

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Stage 3.3. The nose rubbing ceremony. The climax of the ceremony was determined by availability of three items; sugar cane stocks, salt and pigs. These were presented by the peace-makers to the former enemies and the general phrase for the peace ceremony was 'they rub together the war nose' *(opo ngumb kaimb esim)*. Again the accumulation of the items of wealth by the peace-making groups required time. The sugar cane plants had to grow to a certain height before they were ready for distribution. The salt was brought in through trade and the pigs had to be fattened. This involved labour intensive crop production, pig raising and trade expeditions to salt making regions.

When all there items were secured in quantities all the peace making groups presented themselves in their *gol* attire and progressed to the battlefields. Then they took down the *milt* substance and knotted it around stocks of plants. The symbols of a peace truce were given to each of the former fighting forces and these plant cuttings were planted in the sacred sites. On some occasions divination objects were exchanged. I noted a similar process among the Melpa in which the objects which are associated within a group's divination substance often categorised as *mi melt (*taboo substance) were exchanged (also see Strathern 1971).

The bundle of sugar cane stems was distributed in a ceremony called 'they give the sugar water' *(omb ngok ngom)*. The ceremony was completed with the mass slaughtering of pigs which were distributed the next day in a ceremony called 'they eat the salted pig' *(kong ap ngom)*.

The former enemies sat side by side in two rows facing each other; in which a warrior from one group sat next to a warrior from the other group. The individuals from the peace-making group delivered the salted pork to the warriors, by walking along the two rows and allowing every individual from the two warring factions to bite a portion of the salted pork. Soon after the consumption of pork the peace making groups visited

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the scared sites of the warring groups and destroyed the 'men head houses', thereby symbolizing the lifting of avoidance rules. It needs be emphasized that the peace ceremony has a cycle of its own, one which required numerous preparations and substantial accumulation of wealth by the peace-making groups.

The above peace ceremony brought an end to the war because both warring groups were in debt to the peace making groups. In order to fight, they had to repay the amount of wealth invested in the peace making process. Since the two groups have already reduced their wealth to stage a war, they were not in a position to repay immediately and stage another war. It was often the case that a *opo gising* ceremony enable peaceful existence for a number of generations.

Stage 4. Compensation payment. The next phase of the organisation of war was associated with the debt payments by the opposite fight partners. The first ceremony was referred to as 'the pigs for the wooden shields' (*opo kumbo kong*). It was a process in which the fight forces raised pigs, mass slaughtered them and redistributed the pork to the allies who participated in the war. The other debt payments included (a) internal compensations *(akamp yi sim)*, (b) payments to the enemies in the form of bride exchange, if the death was classified as the 'termination of one's own transplant' *(elim ond omb kekep toem)*, (c) the major payments to the allies for deaths or injuries, and (d) rewards for killing an enemy. The compensation to a major ally war death is referred to as *kong makal* and reward payment is defined as *yi memekim esim*. Since these ceremonies have their own rhythmic patterns and may take several generations, it is suggested that a period without war is a condition in which the communities return to a *moss* period (Stage 1).

Conclusion.

The above descriptions cover only selected aspects of the conduct of war, and space does not allow further discussion of such issues as the management of battlefields, the payments demanded by the root people for the loss of their transplants, the events leading up to a formal defeat and subsequent destruction of the planted environment (*Omb kone,* Chapter 8).

In discussing the organisation of warfare, I outlined the preparations for it and its build up to the confrontation in the battlefields. Warfare is more than a dispute resolving mechanism, in which two bad tempered individuals incite others to engage in stick fights and resort to using lethal weapons when things get out of hand. Likewise, the objective of a set piece battle for the S. Wahgi is not all-out war, but a well planned and organised campaign. It is in part a ceremony and operates in much the same way as other ceremonies, and in part a religious phenomenon. It takes years to plan and stage a war, beginning with the war of words and ending with the display of wooden shields and the actual confrontation Thus every battle has its own cycle which includes also public performances and discussions of the information thrown in by spectators. It is upon this information that the community as a whole and the fighting forces in particular evaluate the possible consequences of the day's engagement, even before they cross the line into the enemy territory.

It is this local and deep knowledge of warfare by the Wahgi themselves that I shall discuss in the following chapters. After presenting the crucial issue of group structures in both their long term (genealogical) and short term (war marriage) aspects, and after providing a detailed analysis of the wooden shields as a material and symbolic component of warfare, we will return to 'ethno-history' in the conclusions and try to understand the war that went on between the Konombka and Kondika 1989.

Chapter 4. Genealogy and history of war

Introduction

The intricate relationships between social landscape and origin stories can lead us further towards an archaeological goal - that of reconstruction the history of warfare. In particular, I shall use in this chapter the genealogy of the Tangilka group to discuss the major phases and events of Wahgi warfare, starting from 1600 AD (the 'sweet potato revolution') and ending in 1933, the end of 'prehistory' in the Highlands.

The standard ethnographies suggest that the genealogical depth of the Wahgi people - their memories of past ancestors - is shallow. This established view provides little comfort to the proposal that Wahgi oral history goes back to 1600 AD. However, the underlying reasons for this apparent lack of interest in lengthy genealogies among the S. Wahgi people has its explanations: The memory of the ancestors is linked to the divine source of power, and it is religiously immoral to call upon individual names of deceased relatives for reasons other than religious.

The individuals who died through unnatural causes have a special place in history. There are various ways of preserving these records. These include (a) the names of the ancestors reconstructed in succeeding generations (somewhat similar to the attempts made by previous researchers, Reay 1959, Brown 1972), (b) the incorporation of the names of the warriors killed in warfare within the genealogical charters and (c) the general marriage patterns associated with the consequence of a known war, which creates the sequential root-transplant relations.

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Time.

The issue of time is of central interest to archaeology. The interpretation of past human activities involves the intentional systematisation of events into a sequential time-scale. When time fades beyond the threshold of the human memory and beyond the antiquity of writing, archaeology can provide various scientific methods through which to give absolute chronological dates to material remains of past cultures. With these sophisticated dating techniques, archaeologists and anthropologists aim to approach the facts in a scientifically abstract and objective manner. Within this framework of intellectual thinking, it is felt that the analysis of oral history should either be rejected or made to stand up to the same sort of scientific standards.

It is the case that oral historical accounts can rarely fulfil such empirical expectations. At the same time, these externally oriented approaches do themselves undermine the source of indigenous knowledge, and in particular those pertaining to the religious connections between the present communities and the prehistoric ones. While the origin stories are part of a war history that stretches back to the 1600's, the interval of time between the present and the *se danjip kunum* cannot be verified from a single source such as the genealogies of the groups.

In a social landscape where time is crystalised, condensed between two time-space zones (the real and the invisible world) the informants I talked to found it difficult to understand why I wanted to create a time scale. They drew my attention to the ancestral sites, the names of children which had been handed down from previous generations, the specific plants and material forms that represented the past cultures. For them the physical objects of past communities were divine representations, rather than the things that ought to tell us about technology, subsistence, economy and lifestyle.

As discussed in the previous chapter, time for the Wahgi is everywhere, to be interpreted from many possible angles. It can be constructed from the present to the limits of the human memory, as will be demonstrated in the construction of proper genealogical

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names paired with idioms associated with group structures. It can be ordered from the bottom to the top as in kinship structures, and such an ordering may be metaphorical, derived from botanical idioms to describe the ideal growth of a plant. A pressing issue, adding to the many ways of conceptualising the past, is the emotional, symbolic and religious association between the material objects left by the ancestors and their descendants at every succeeding generation.

A further point of interest to archaeologists is the variety of methods by which the totality of a culture develops an extensive capacity to record past activities, beyond the spoken words and into the realms of material culture. A living past exists in the present and the strength of its continuity is seen in the forceful interpretation of the authenticity of spoken words by drawing examples from indigenous forms of archaeological evidence. These include, as I have already mentioned, preservation of ancestral skulls which provide a charter for manipulation and extension of genealogies of war deaths; recording of root talks or war talks through the use of special plants normally planted in specifically designated origin sites, owned at various group structural levels. Undeniably, time elapses in a sequential way in all societies and in S. Wahgi where prehistory is much alive, "the process of social reproduction is interwoven with different forms of awareness of the past, present and future" (Giddens 1986:200).

Genealogies. Genealogies are appropriate areas for designating chronological sequences. The striking pattern throughout the highlands reported in the early ethnographic literature was the lack of lengthy genealogies. It provided little encouragement for subsequent systematic analysis of the culture history of the area. Understandably, the objectives of the kinship studies of the highlands were in property inheritances, succession to office, rights, obligations and kin relations. A reconstruction of a genealogy would help a general understanding of the overall kinship relationships, in

which the basic research methodology is based on functional models rather than diachronic relations.

In S. Wahgi Reay asserted that the people had "short memories" (1959:34). She based her observations on the assumption that the informants were able to trace genealogies up to four generations but no one could guess how many generations has lapsed between the living persons and the various hierarchical structural levels in the Ka sequence. In addition other anthropologists offered suggestions why there is a lack of interest in lengthy genealogies.

Some ethnographers claimed that the highlanders "clip", "patch" and "telescope" ancestral names in an attempt to 'convert outsiders or non-agnates into agnatic status when they become residential members of other groups' (Feil 1987:130). Others suggested that the lack of interest in cultural sequence associated with "lack of interest in property and succession to office" (Strathern 1972:215). Where genealogical revisions take place, "they may be simplification of characters" and they may be "metaphors used by big men to mask" instability, migration, endemic warfare to produce "an appearance of stability" (Strathern 1982:35, Salisbury 1956:6, Barnes 1962:13). An additional reason is proposed to explain the lack of interest in genealogies.

Memories of war deaths. As already mentioned, the highlanders avoid references to names of past ancestors because the dead are collectively granted the status of the divine source of power. To recall the individual names is seen as blasphemous. The simplification of characters and creation of sanctified idioms like *Kipe* is of the highest order and it implies that they are used in the same manner as if someone used God and Jesus in Christian religious ceremonies. The people are aware of their own past. It has a religious meaning. It is created to be worshipped and honoured. The prayers as well as gifts were offered. Why should an indigenous person want to call upon a particular ancestor when all ancestral names are collectively classified as *Kipe,*
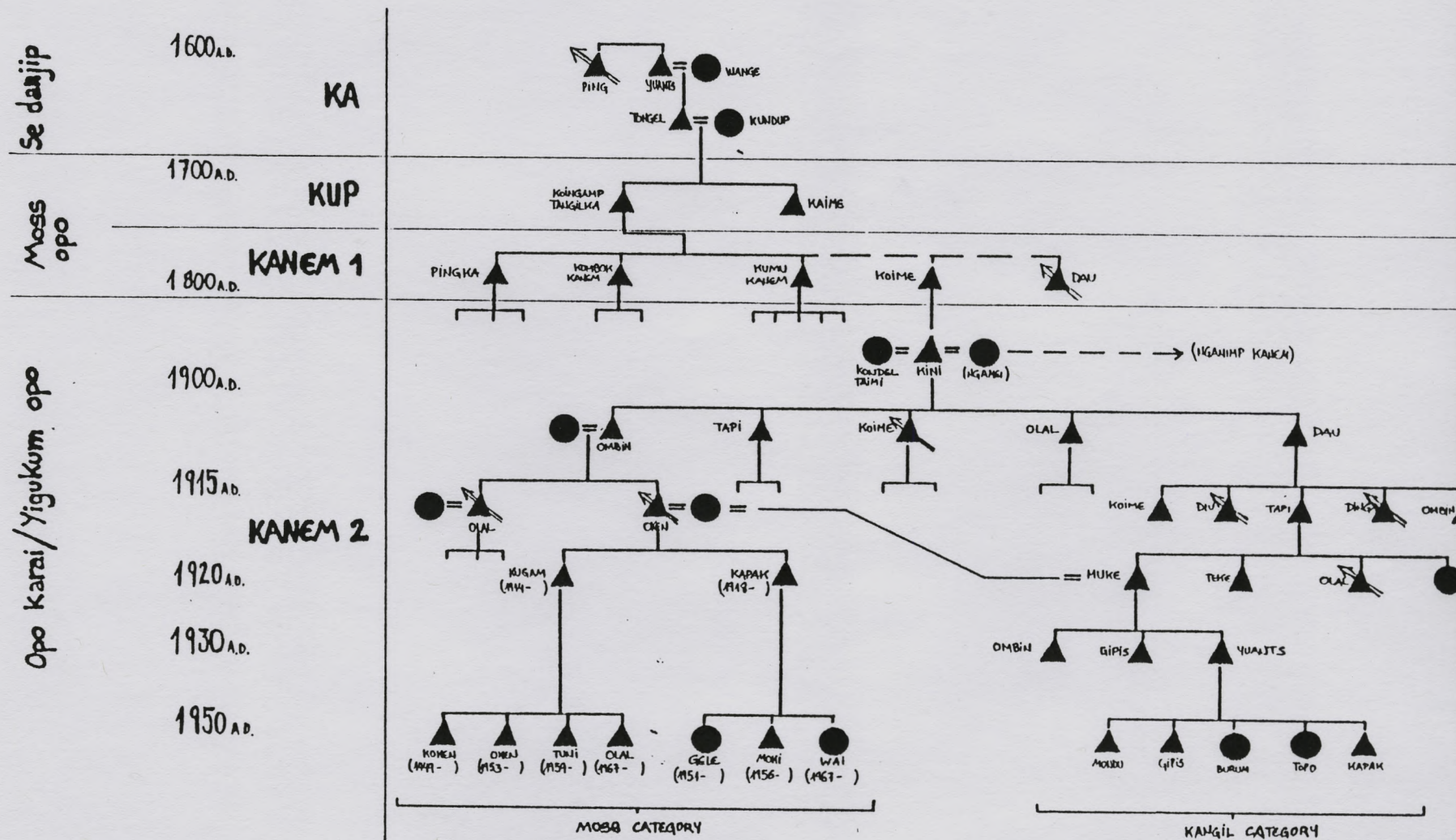
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Figure 4.1. Partial genealogy of the Tangilka (Kondil Kanem segment) showing the relations between the ancestors (origin stories) and the present generations, and their correspondence to the Ka group structure (⬈ = killed in battle).

which defines the existence of a past world? Does it not resolve the problem of having to recite lengthy genealogies?

However, the attitudes towards the ancestors create a paradoxical situation. As noted, all the *minmaan* of the dead enter the invisible world and become the divine *Kipe* but within this framework there is a distinction between those who are said to die of natural causes and those who die of unnatural causes.

The individuals who live an entire life-cycle from childhood to old age are often described in terms of the cyclical patterns of plants, animals, nature and its creatures. Someone who reaches old age is classified as the one who had 'fallen off from the main source' (*tuk pum*). It means someone who dies in the same way as the leaves that wither from the branches or nuts/fruits such as pandanus species that fall off from the trees. It implies that there are no compelling reasons to remember all the names of the ancestors. Generally, it is not a custom to call upon the names of the deceased relatives and such acts will be considered as a form of betrayal in the presence of the spirits of the ancestors. The ancestors were acknowledged but the real names were substituted with names like *Kipe* (gods), *minmaan* (shadow-image) and/or *minenga* (the sky gods).

On the other hand, it is religiously immoral to forget the names of those who died under unnatural circumstances. These include (a) murder (*kapil tonjip*; they killed him with sticks), (b) through anti social causes (*kum enjs kongo tonjip*; poison, witchcraft, sorcery) and (c) combats in the battlefields (*opo aak tonjip*; they killed him in the war). The primary consequence of war is the death of young men who would have otherwise gone through a full life cycle, had they lived in accordance to the principles of harmony and good relationship with the gods. The death of a young warrior is thought of in terms of a sudden termination of a plant that had not reached in its full maturity. In S. Wahgi the expression is 'they killed my young man' or 'terminated my emerging shoot' (*yi kup toem*).

The detailed recording of the names of the war deaths includes also (a) the principle fight partners, (b) the Kanem fighting force which officially acknowledges the responsibility of killing the opponent, (c) the particular battlefield in which one was killed, (d) whether the skeletal remains were stored until appropriate revenge procedures had been completed and (e) whether the memories were stored in the forms of material objects (skulls, weapons and symbolic plants). This elaborate process qualifies and engages the victim's group in a new reciprocal interaction; the retributive actions are often labelled in the literature as 'revenge' or 'payback killings'.

However, it must be accepted that revenge procedures are part of the wider network of the principles of reciprocity. Researchers rarely make a connection between religious views of morality, order and war deaths because such terms like revenge and payback killings express their negative cultural views. I argue that war death is part of a religious phenomenon. Trompf makes a similar point

> The heart-beat of Melanesian religion, I estimate, lies in that constant round of give- and-take - or of payback, both vengeful and conciliatory- from which has been generated great warriorhood, the excitement of ceremonial exchange, the anxiety felt during funerary and healing rituals, and most prolonged intragroup discussions over why events turned out as they did (1991:19-20).

Furthermore, he suggests that the successes or failures were explained in terms of a 'retributive logic';

> that is, each culture has its repertory of reasons to explain why a death may have occurred, why sickness has struck, why one family or person is more prosperous than others, why trouble has arisen between two parties, and the like (p. 21).

The implication is that deaths must be explained before retributive actions are taken against the enemies. These retributive actions are often delayed, and may take up to a number of generations.

Explanations are central to Wahgi warfare. They are centred around the principle of the defiance of religious values. The fear of punishment from the gods is a necessary rule for ensuring that testimonies such as the preservation of ancestral skulls are concealed knowledge and not accessible to outsiders. The exposure of specific war

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knowledge on the moral conditions of one's own group is an act of betrayal; he betrays himself and is likely to bring bad omens upon himself, his group and the future generations. It is the victim's group who normally pleads guilty for not maintaining good relationships between humans and the spirit order. In the Wahgi the sins have to be confessed. This pressure to explain the causes of death ensure that the records are kept alive whether within a brief period of war or across several generations.

Given such fundamental attitudes and beliefs towards death, the process of recording the names of the war deaths is not simply a question of recalling specific names for their own sake. Quite the contrary, the rituals surrounding the war deaths during the conduct of war and the various ways of keeping these in record enable the names to be passed on from one generation to the next, thus providing crucial material for explanation (some war rituals of death were presented in Chapter 3, Stage 2; Phase 3).

Bearing in mind that warfare has its own language, it is highly questionable whether the people were prepared to reveal their secret knowledge of past warfare and in particular the 'genealogy of war deaths' to those who are a potential threat to the concealed source of knowledge. A war specialist can easily distort the information, simplify characters and conceal the root reasons from those who have connections with the potential enemies. To conclude then, as far as the S. Wahgi war historians are concerned, the records of the war deaths going back to the time of the *moss* wars are accurate enough.

Genealogy of Tangilka.

I discuss the genealogy of Tangilka in two stages. The first stage shows the relationships between group names, the suffix idioms and how they are structured into various social groupings. This covers the period from the *se danjip kunum* to the time of *moss opo* between Tangilka and Kopanka. In the second stage, the genealogy of the Kondil Kanem segment of Kumu Kanem is reconstructed. The objectives are (a) to list

the war deaths that occurred since the beginning of the Tangilka and Kopanka *moss* war, (b) to demonstrate the marriage of widows within the victim's group and (c) to outline some aspects of the history of war marriage contained in the genealogy.

Phase 1. *Se danjip kunum,* **1600 AD.** Based on the Tangilka origin stories, one way of establishing the chronology of warfare is by listing the proper names of the ancestors beginning with the parents of the founding population. O'Hanlon notes that "groups at each successive level down are said to be found by eponymous sons of the father above the level" (1989:23-24). According to this framework Wauge gave birth to a son and Tongel is said to have married two wives. One from Nene Apka. The other wife was from Kopanka and she gave birth to three sons; Ping (named after the brother killed in Chimbu), Koingamp and Kaime. The descendants of Koingamp are Tangilka and the children of Kaime are Ta Kup (now incorporated into the Kuma Kondika). The children of Ping are the Pingka a component of the Tangilka. The relations between the founding ancestors and the current Kondil Kanem generation are shown in Figure 4.1.

1600 AD. Death of Ping. The previous chapter discussed the migration from the Central Chimbu after Yuants' bother Ping was killed during the war between the Central Chimbu tribes. The skeletal remains that represent Ping are said to be kept in rockshelters in Central Chimbu region. The following recorded statement demonstrates this point.

> They hit him with a stone axe and the edge (blade end) is broken. Where it hit the skull, the stone axe penetrated inside and the fractured skull with the stone axe is still at Goi Wai stones (Porol Ridge). Before we organised the last Pig Kill (1965) we were invited to go and see our ancestor. So that during the ceremony we would be able to court girls, attract women and conduct a successful pig kill. Ask Nerowai (Luluai) Yuai (if you do not believe me), he will confirm it (Oken Alki T/T 1990).

Whether the remains are actually those of Ping can never be established but the skeletal remains examined belong to the Guants-Tangil group. The Enduk Guants-Tangil of Central Chimbu and the Dambnge Tangil of South Wahgi acknowledge their common inheritance through the skull of Ping stored at Porol Ridge. The last time the Tangilka

sighted their ancestor brothers' skull was in 1960. I did not sight the skull and despite my persistent attempts to ask my elders to prove its existence. Oken asked me to check the information with all the participants in the expedition to the Central Chimbu in the early 1960s. Most of the informants confirmed the sighting of Ping's skull. Assuming that the antiquity of the origin stories is contemporaneous with the introduction of the sweet potato, the above skeletal remains may be three hundred years old (1600 AD).

There are other skeletal remains of those who died of unnatural causes more recent in history than the above example. They are stored in the Tangilka territory (see table 4 .1). I obtained permission from the elders for one of the skulls to examined by a physical anthropology student in 1985 (M. Green, from Australian National University). The Kopanka and Konombka war historians provided similar accounts of the preservation of their ancestors. It was brought to my attention that a number of skulls of warriors killed during the 1979-1986 war were removed from the burial places and stored in sacred sites (K. Olal, D. Olal, M. Teke T/T 1990).

Although the detailed information is available, the pressure from missionaries and from those who did not have a high regard for their ancestors to abolish such practices makes the presentation of the evidence a sensitive issue. The informants disclose the information in confidence. I have agreed not to disclose in print the location of the sites, which of course would provide useful archaeological evidence of a social practice that is still alive.

It is doubtful, however, whether the protection of the peoples' interpretation of the past will be respected by 'interest groups' in the Wahgi Valley. Archaeologists have often been classified as 'grave diggers' but behind this gross accusation is the realistic dispute regarding the return of skeletal remains including those of the Aborigines and American Indians from the Western museums to their appropriate ancestral burial places. Historically these objects may have been of scientific interest but now they have become tools for political and ethnic debates (which I shall not discuss here).

Phase 2. 1700 AD. First formal wars *(moss opo)*. Having established that the migration of Tangilka begins around 1600 AD, it is important to fill in the history of war between this period and the present. The obvious source is the narrated accounts but word of mouth sounds speculative to sceptical archaeologists. By archaeological standards, the evidence may be less than sufficient, but the richness of rhetorical and expressive linguistic accounts must be analysed in such a way that the realities of the Wahgi people's intimate interactions with the past can be recovered.

I bracketed a period of hundred years between the time of the movement and settlement of the founding populations of the contemporary groups and the first known wars. This period of increase in population is described as 'they stayed as *moss* people'. The term *moss* comes from the age grading of the nubile girls. Those girls that had reached their puberty but had yet to be formally initiated into the courting ceremony are referred to as *ambik baril*. In contrast those that are formally engaged in courting men are *ambik moss*. The period that a young unmarried woman participates in a courting ceremony is drawn as an analogy to describe a period without a war. However, there is no direct connection between girls and the first wars, rather it refers to the freedom and conformity that surrounds the social practices.

It is perhaps appropriate here to acknowledge that Reay's title of the book *Freedom and Conformity* (1959) does essentially captures the expression *ambik moss*. The girls are free to entertain and court a number of young men, but they must nonetheless conform to the expectations of the parents and groups when it comes to choosing a partner as an husband. The freedom includes (a) the right to have more than one boy friend *(yi maan ngom)* and sleep with any of them during and after the evening courting sessions *(kanand)*, (b) perform public courting sessions during the major festivities in which they are allowed to court married men during the day sessions *(yi gising sim)* and (c) spend very little time in the gardens or carrying out domestic duties.

More often the girls are allowed to choose and marry one of the courting partners that they have been dating on a regular basis. When they formally leave their parents residence and go to their lovers' village the above freedom is restricted. They are married women and are expected to remain loyal to their husbands.

Returning to the origin stories, we see how these rules are implemented. In the story of Kui (see appendix I) the difference between the social relations of the wife of the Kamane Kup and the two Wilimbka girls is apparent. The girls did capture Kui and tamed him into the Wahgi life. They were living together but none of them were married to him. Thus, they told Kui that were entitled to attend the food festival and court publicly with the male participants. If one of them was married to Kui such practice would have been impossible.

In Ping's story, his affair with someone else's wife (on the grass during the ceremony) was considered as an adultery. In Wahgi it is referred to as 'stealing some one else's touched partner' (*amp kunump toem*). When it is a case of mistaken identity, the fault is not with the woman for she assumed that the person she had sex with was her husband. However, had she not told her husband about the contamination of the edible greens, the incident may not have been known. Ping was the guilty one in this affair, and he was punished for his own sins.

Freedom to Reay was 'sensate'. She said 'The Kuma have no idea of freedom, but their aggressive pursuit of power and advantage is, as it were, an experimenting with reality' (1959:194). Contrary to her view, I shall argue that freedom is a reality, a condition of life and the conceptual reality is historically constituted. The following extracts, for instance, describe the analogy between the freedom associated with courting girls and historical war relations.

> When they say the people lived during *moss* period, it means that they initially came and inhabited an area *(se danjip kunum)*. During this period they did not fight It is like the girls who live during a *moss* period. When we give them to men, they go and have children. The initial settlement was a period where the people did not fight but when they had plenty of children *(ngaak kangik punjip netonge)*, they realised that there were plenty of people. The children would argue

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and when their intestines got hot (*kumbuk mugk*) they went to war (Galinga T/T 1990).

Another understanding of the *moss* period can be found in the following account.

> People in the past *(yiek akamp)* stayed and took the *mun gau*, this thing that you find on the tree trunk. They cut them into pieces. They shredded the feathers of the wings. They took the 'pig's tongue' *(kong arbik)* and tied them around their arm. The front apron was made from garments known as *kunjap maap* (different from the present *kunjap*). The ancestors split the *waiang* plants, peeled them and made them into belts. They did all these things and these decorative aspects made them become *moss* people.
> There was so much pig grease *(kong kopong)* on the cane belts and the armlets. The maggots were breeding there. The grease was dripping on the *Kai kon* (feathers woven into a cap, usually, cassowary feathers, eagles and parrots). This was how the boys *(ngang)* decorated.
> The girls skin had a lot of grease *(kopong)*. Their armlets *(dong)* and cane belts were saturated with grease. The *kopong* was derived from the pigs and whenever they killed pigs during the *kong gar* the fat *(kong kili)* was converted into grease. The boys took their bamboo mouth harps and played along with the girls. Also they went to the ridge tops, sat down and made noises known as *kon pup toem* (composing tunes in their mouth into various tones, which could otherwise be done by air-blown instruments).
> When they did these things, they people did not conduct 'war' *(opo)* or 'stick fights' *(ngmaagk kapil)*. They addressed visitors as age mates or equal partners *(yi kom)*, peer mates *(tapyi)* and brothers *(angnan)*. The unknown visitors were invited by the *moss* people to their house and were fed. During this period the people did not fight. The *opo* is said to be a very recent event (M. Teke T/T 1990).

The roots of this religious festival are linked the idea of a period without warfare *(moss panjip)*. Soon after the settlement, a lot of *kong gar* were held and people were free to attend these ceremonies. Each Ka group in S. Wahgi celebrated their own pig kill ceremonies. The period of *moss* is almost like the the temporary unrestrained life of the courting girls. It was a period in which the potential fight partners did not impose strict rules on how to behave towards each other. It means that there were no fire taboo restrictions *(dop mapil)*. Exchange of food was not prohibited and the *geru kulba* rules were lifted. The *moss* period perhaps was considered the highest point in the religious lifes of the Wahgi people and the supporting evidence for this ceremony is linked to the cultural ideas on grease *(kopong)*.

Grease is a substance that provides the ingredients for procreation and continuity. Well being, good health, prosperity are said to be the reflection of good grease among the

women, pigs and the soil. Examples are drawn to demonstrate the idea of grease and its connection to marriage ceremonies (Chapter 5). Grease is taken to mean the substance that is 'planted' by women's relatives. The formal conclusion of a marriage payment is often known as 'they grease the woman'. O'Hanlon and Frankland (1986) noted the difference between taking the 'ghost away from the transplants' *(Kipe si)* and 'greasing the transplant' *(kopong gasim)* by the root people. Grease is said to reflect the blessings from the gods, like a prayer that has been answered and is a way of ensuring that the individuals are not punished by the gods.

The source of real grease closely relates to pig fat *(kopong, taming, kilyi tandaming)* and the abundance of grease, as described above, must surely involve the slaughtering of a lot of pigs: the Wahgi pig kill *(kong gar)* is at the centre of this religious worship. The period without a war is marked by intense religious ceremonies.

The Dambnge people are said to have introduced the pigs into the central Wahgi culture but this view does not conform to evidence for the archaeological antiquity of the pigs (Bulmer 1977). Nevertheless, if we assume that both the pigs and sweet potato were the gifts from the gods *(komb se)* we begin to see why most Wahgi scholars have described the *kong gar* festival as a ritual of fertility (Reay 1959, 1986, 1988, O'Hanlon 1989). The introduction of the new crops and perhaps pigs forces me to think of *Kong gar* not so much as a ritual of fertility but as a religious response to the sudden increase in children, animals and food crops. Trompf (1991:18), a specialist on Melanesian religion, notes the the Wahgi *Kong gar* "is surely the greatest expression of religious life" and at the centre of the ceremony is the worship of the *Kipe* (Lutzbetak 1956, Reay 1959, O'Hanlon 1989).

Going back to the Tangilka's first origin story, the first pig kill is linked to migration and subsequent political survival. The Tangilka realised that their previous wrongdoings since Ping's adultery case were forgiven and they not did die out politically as the other major units expected. Their success in their political and military survival had

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to be understood in terms of the blessing from their gods. The gods were on their side. These food crops and animals were given to them. In order to acknowledge these things they worshipped the *Kipe* through the pig kill ceremony. The strength of their continued political survival depended on maintaining good relations with their gods as well as the neighbouring groups. More importantly as *geru kulba* people, the first pig kill that they conducted at Dje Bar was one way of decreasing the rules of separation. It would enable them to obtain wives and engage in other exchange activities such as the exchange of food *(moknge bilt)* noted in the Minjnge story.

For more than three generations after the initial settlement, an interval of approximately hundred years (1600 AD-1700 AD), there was plenty of food, women gave birth to many children and the sudden appearance of sweet potato revolutionised the pig rearing techniques. If not, in the S. Wahgi society, there was a process of adjustment of the societal structures to equate with the sudden religious blessings from the gods. The combination of pigs and sweet potatoes perhaps marked a period of abundance of food, rapid population expansions and this was accepted into the social strategies by an intensive religious worship.

Phase 2. Moss wars.1700 AD. Por Koki and Kum Kumai War. During the 1700s there were two major sequences of Wahgi war which affected the entire S. Wahgi speech community. It was a kind of 'Wahgi World War 1' (Reay 1982), referred to as *Por Koki* and *Kum Kumai*. It is claimed that all the groups east of the Minj River (Minj and Kup regions) were involved in the *Por Koki* war. This war was initiated by the Sengelap and Beiman groups of North Wahgi. It spread to the South Wall of the Wahgi Valley affecting the eastern half of the Wahgi speech community. The Beiman groups were defeated and chased southwards. The fight eventually reached the Tangilka territory.

According to the genealogy of Kondil Kanem, one of their ancestors (Dau) was killed during the war. It is claimed that he was burnt by the enemies. Whether Tangilka participated in this particular sequence of war remains obscure. Dau's charred remains are stored in a rockshelter in the Kumu Kanem territory.

The Beiman groups migrated to the Chimbu region. Later Tangilka made a war expedition to the Chimbu region and attacked the Beiman for burning Dau's body. In the course of the war they brought back a Beiman woman and gave her to the Pingka. She is the founding ancestress of the Beiman Kanem. Beiman as a major political unit died out but the branches of Beiman are incorporated into other Ka groups. The *Kum Kumai* war was fought by those groups between Minj and Kudjip region. I shall return to the *Kum Kumai* war in the final chapter.

1700 AD. Kopanka vs Ta Kup *moss* war. The first formal war that the Tangilka were involved after their flight from Central Chimbu was influenced by conflict between the Kopanka and Ta Kup. The Ta Kup routed Kopanka eastward to the Chimbu region. No known deaths are recorded during this war but it seems that Tangilka remained as a neutral group. The Tangilka's first organised war was with their brother group Ta Kup. The sovereign hostility between the two groups is classified as the 'war of the bird of paradise'. Between 1750 and 1800 the Tangilka invited the Kopanka to return to Tapia and both groups chased Ta Kup. The Ta Kup migrated and joined the Kondika. The allies of Ta Kup during this period were the Kondika and Konombka. Whereas the allies of Tangilka and Kopanka were Kurupka and Maiamka (Appendix I).

1750-1800 AD.Tangilka vs Kopanka *(moss war)*. The Tangilka fought against Kopanka in the first war *(moss opo)* regarding a dispute over the 'fresh leaves of tobacco plant' *(toko kolnge kamni opo enjik)* but the truth behind this metaphor (see last is that some young men raped an *ambik moss*. The detailed accounts of the first formal

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war between the Tangilka and Kopanka are left aside, but transcripts of the history of the Kopanka, Ta Kup and Tangilka *moss* wars are available in the original S. Wahgi language. The first death recorded during the Tangilka and Kopanka war was Kombok Kanem Utenga. The Tangilka migrated to Minj. They sought refugee among the Konombka.

1800 AD -1850 AD.Tangilka vs Kamblika; shadow brother war. While Tangilka were at Minj the Tuimekup were involved with the war against the Kopanka, Kamblika and Komonka. The Tangilka and Nene Apka went to watch the war. It is claimed that the Kamblika laid an ambush at Maia ridge and murdered Kumu Kanem Koime and an Apka man. The political status is often classified as 'shadow brothers' and it is possible that the death of Koime was a killing carried out by Kamblika on behalf of Kopanka. The fight root man responsibilities are important in warfare and the Kamblika shifted that responsibility from the Kopanka. They became the principle opposite fight partners of Tangilka and it is possible that Kamblika's action was influenced by an underlying 'root' reason. The pattern may be similar to the one leading to the formation of Tangilka and Kopanka as single fight partners. The Tangilka were accused of killing a number of Konombka for Kopanka and it is claimed that this event cemented their alliances.

It should be emphasised again that among the many rules of the conduct of war, it is unconventional for members of sovereign groups to be killed outside the battlefield. Once such action is initiated by one group the opposite fight partner will initiate a similar action. But revenge killing does not imply that everyone ambushes any persons belonging to the enemy camp. Since the start of the 'shadow brother war', the Kondil Kanem lost three men outside the battlefield. These include Kondil Kanem Diu and Dinga (late 1800s). As far as the Kondil Kanem are concerned the Kamblika killed them with sticks or 'stole three of their men' (*na yi kunump toem*; he stole my men and killed them)

(D. Kimp, B. Dari, P. Teke, O Teke pers coms. A. Alki T/T 1990). In the formal war the Kambilka killed Kumu Kanem Olal Tuni, who was married to a Kamblika, Bendik Kup woman (see Chapter 7).

Phase 3, 1920- 1940. Tangilka and Kamblika; *yi gukum* **war.** The Tangilka regularly moved between Minj, Tapia and East Kambia region. During the course of a hundred years (1850-1950) they made several attempts to return to Tumba Tapia. The first resettlement of the Tumba Tapia region was formally organised by Tuimekup. They stepped in as a third party peace-making force and performed the 'they beat the bow drums' peace ceremony. The Tuimekup neutralised the formal status of opposite fight partner between Kopanka and Tangilka.

Around 1920 Tangilka and Kamblika fought again. Tangil Kumu Kanem Oken (Kondil Kanem), Kuruam (Ngumai Kanem), Kapen (Nganimp Kanem) and Bake (Nganimp Kanem) were killed at Tumba. Between 1935 and 1940, the Tangilka fought the Kamblika but none of their warriors were killed. In the 1940s the Catholic Church was established in the Kup region and the missionaries wanted to built the 'horse trail' from Kup to Minj. The Tangilka went back to the Tapia ridge to build the horse trail and settled there permanently during the post-contact and Independence wars (after 1975).

Tangilka's war history continued after the 1950. They lost four men between 1979 and 1986. In 1982 Kondil Kanem Pinge Oken (1937-1982) was killed at Karpa. Tapi Manjip (1938-1985) of Ngumai Kanem died a few years later after receiving a spear wound. A warrior from Tuimekup, who fought along side Kumu Kanem was killed at Molka in 1985. Mange was a transplant of the Kumu Kanem, the grand son of the daughter of Koime (see genealogy).

Gun warfare between the Tangilka and Kambilka erupted (December 1991), while I am in the process of completing this thesis. Kombok Kuma of Kondil Kanem was shot by the Kambilka in January 1992. The effects of gun warfare and the changes

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that it will bring to the nature of traditional Wahgi warfare will be returned to in the general conclusions of this work.

Conclusion

A comprehensive list of all war deaths in most of the second order Kanem groups of Tangilka is beyond the scope of this work. Research on this issue will require extensive genealogical information from the 12 Kanem units: not only on the figures of the war deaths but also on the history of marriage, within the social group, between the opposite fight partners and between the allies. Let us not forget that for the 20 contemporary clan (Ka) groups in the S. Wahgi speech community, there are 84 second order Kanem groups that function along the same segmentary level as the Kondil Kanem (see details of group structures in Burton 1987, and table 4.1 here).

The important issue to keep in mind is that each group (with political and military status similar to the Kondil Kanem) has particular access to the general history of warfare. The war deaths and marriages that are important to their lifes are often demonstrated in their verbal statements. The records of the war deaths are part of the restricted knowledge which form the cornerstone in the language of war. The knowledge on the locations of ancestral skulls retained from those killed during war, the battle sites and the artifacts of war are kept alive by the Wahgi people. Thus I argue against the commonly held view that the Wahgi have short memories. Any general assessment of the present Wahgi lifestyle and condition will have to take into account the fact that the people's idea of their own history is both specific and important.

The skeletal remains of individuals dead in past wars could contribute to a more 'scientific' archaeological or anthropological study of the issue. We know however that knowledge of past event can be used by the Wahgi as source of power in the present (just

like in the western world). This knowledge is restricted, and I have felt it important to respect the wishes of the Wahgi people and to withold specific details. Moreover, there are other ways of supporting the general chronology of warfare, such as the history of marriages resulting from warfare and the general process of the segmentary division of the Ka group structure (sources I will discuss in the next chapters).

In any case, various researchers have argued that an analysis based purely on genealogy for the reconstruction of the recent past is less reliable and purely conjectural, often seen as mere metaphors used by informants to construct contemporary social and political realities. Certainly, there is a divine relationship between the present and the past, and the masking of the past realities provides standards for interpreting the meanings associated with the metaphors. At one level, it safeguards and provide additional check for the members of a group so that they do not offend the history of their ancestors because they are the divine source of power (*Kipe*). At the other level, an open dialogue is maintained so that the community has access the its own past, in the form of both origin stories and of material remains (such as skulls, instruments of war and 'living monuments'). This is why I conceive of the Wahgi as 'archaeologists' of their own past.

Chronology	Type of War	Name	Nature of death	Evidence
1600 AD	Se danjip	Ping	Killed, Goi wai ku	Skull/preserved
1700 AD	Por Koki	Dau	Murdered, Tsigmil	skeletal remains
	Kum Kumai	Gelenge	Killed, Kudjip	Kaman tree
	Ta Kup vs Kopanka		Killed, Tapia	burial/plants
	Tangilka vs Kopanka	Utenga	Killed, Tapia	burial/plants
1800 AD	Tangilka vs Kamblika	Koime	murdered, Maia	burial/plants
		Olal	Killed, Tapia	burial/plants
		Diu	Murdered, Tapia	burial/plants
		Dinga	Murdered, Tapia	Skeletal remains
	Konombka vs Muruka	Olal	Killed, Pugamil	burial/plants
1915-1920				
		Oken	Killed, Tumba	skeletal/ objects
1935-1940	Tangilka vs Kamblika	no deaths		
1950	Tangilka vs Neneka	no deaths	1 Neneka death	
1967	Tangilka vs Kamblika	no deaths		
1970-1971	Tangilka vs Kamblika	no deaths	1 Kamblika death	
1979-1986	Yi gukum opo	Pinge, Mange	Killed, Molka	burial/
		Tapi	Killed, Munapil	buried, Molka

Table 4.1. Summary of the history of war deaths of the Kondil Kanem.

Chapter 5. War marriage

Introduction

An understanding of marriage practices and terminologies provides us with a way to approach Wahgi warfare. As many other aspects of Wahgi beliefs, warfare and marriage are often seen as paired entities. The cultural expressions associated with marriage are said to owe their existence to past sources (O'Hanlon & Frankland 1986, Trompf 1990, Reay 1959, Lutzebtak 1959, Aufenanger 1956). In order to establish the close links between contemporary marriage patterns and historical war relations, I explore the concepts, meanings and patterns of the contemporary marriage practice and demonstrate how the vocabulary of marriage is used by the S. Wahgi to describe the war relations. Some of the terminologies like 'grease', 'planting substance', 'root', 'base', 'stock' and 'transplants' are derived from the people's understanding of the biological principles of stability, gradual change and cyclical patterns observed in the socio-cultural landscape.

Other fundamental principles of marriage which have direct influence on the patterns, changes and the conduct of war include the distinction between shadow brother *(yi gukum)* and brother wars *(angam),* the inheritance of the divine substance *(minmaan)* and the recognition of the cyclical patterns of a breeding population *(kopam kambin)* between family units of independent origins which in time are transformed in into socio-political *(yi doogum)* and fighting forces *(opo kupan)*. This would unable us to understand such fundamental expressions like 'we marry those whom we fight' (Meggitt 1958:278, Salisbury 1962:25) and /or we fight against our brothers.

War marriage.

In the ethnographic literature Reay (1959:62, 1967) described the political functions of marriage. Affinal group relations are often expected to diffuse and alter conflict, hostility and opposition between the fight partners. The relevance of contemporary marriage to warfare is often read at the individual field of social relations. For instance, a warrior may not fight against his root people and he is not expected to eat fresh animals dedicated to the revenge of a clansman killed by someone from his mother's brothers group. These restrictions, according to O'Hanlon and Frankland,

> seem to symbolise quite sharply ego's diminished commitment to his own agnatic groups in cases where aims of the latter are at odds with the special relationships ego has with his mother's brothers, 1986:184).

Similar social practices have been noted among the Chimbu and Melpa societies. In the Chimbu, brothers in-law may avoid direct confrontation when their own agnatic groups are at war (Brown 1964).

At the group level, the consequence of war is the alteration of the marriage partnership. These changes need to be assessed against the spatial distribution and /or territorial ownership of the sovereign entities. It is normally the case that groups that go to war share adjacent territories, so that the change from friendly relations between marriage partners to that of opposite fight partners cuts off the existing cross-cutting marriages ties and limits to choice of marriage partnership among unmarried individuals.

The alternating ownership of the clan territory, in which an enemy's territory runs between two fight partners, defines historical marriage transactions at two levels. First, during a *moss* period the friendly relations between the neighbouring clan groups involves the transactions of women between the former enemies. The marriage exchange partners are often defined as *yi gukum* (see definition, Chapter 3). Second, at the time of war the marriage relations are terminated with the opposite fight partners. But at the same time, the 'fight root man' recruits allies, so that the formal military alliance provides

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necessarily links for new marriage relationships. Thus young people exploit the host and migrant relations and seek partners beyond the boundaries of the previous marriage partner groups.

In addition to these social, political and military aspects, I suggest that marriage practices are connected to the religious interest in fertility rites associated with grease. This interest is part of the religious response to the sudden increase in population and abundance of food particularly coming from the grassland, a landscape that was considered to be owned by the devils and hence unproductive prior to grass tolerant crops (see Chapter 2).

The direct consequence emerging from the religious values of harmony, and good relationship with the gods is that the war deaths do not substantially decrease the population. The decrease in population is read as a punishment from the gods for the breach of moral and religious values. Therefore one of the religious expectations and or/ moral pressures on the married women is to have plenty of children. This practice is extended to warfare in which the S. Wahgi people draw an equation between the loss of the warriors and the potential capacity of the female population to replace them. The informants argued that the women are the potential 'base' *(maam)* for reproducing a young 'stock' (*yi kup*) who's life was instantly terminated (M. Teke T/T 1990). To kill them in war is to destroy the source of fertility and expansion of the 'men within a grid system' (yi *doogum*). Thus the general rule is that females should not be killed in the battlefield (M. Teke T/T 1990, K. Waipek T/T 1990).

There are a number of ways in which the consequences of war enhances the marriage practices to replace war deaths. First, the widows of the war victims remarry within the husband's clan and this practice raises the expectations of having children from the woman's *moss* and *kangil* status. Second, the offender's group normally gives a pool of women to the victim's group after the ending of a war as a form of compensation for the loss of life and (more significantly) with the view that the females will produce

stock/transplants who will replace the sudden termination of a growing plant. Third, the central concern in the Wahgi warfare is to prevent individuals getting killed through public confessions. But when if an individual is killed, the normal procedure is for the victim's group to plead guilty to an offence carried out either by the individual or by the group prior to conduct of war. Ironically, the very act of public confession would allow the victim's root people to impose a heavy fine, and in most cases the victim's agnatic group pay compensation to mother's brother's group. This includes the return of 'a planting substance'; a daughter of the deceased warrior or a unmarried woman from the war victim's immediate fighting force to the individual's root people. The reason is that their transplant was terminated by the victim's agnatic group's own sins, rather than the divine curse often imposed by the root people on the transplants known as 'they take the gods away' (*Kipe sim*). This return of the moral debt is described as *omblom* payment (O'Hanlon & Frankland 1986). I shall elaborate on this point later.

The reproductive unit. In the origin stories, I introduced a number of high level group names to demonstrate the movement of the founding populations of the contemporary social groups. Among the S. Wahgi, Reay classified the names Dambnge, Kuma and Nene as Phratry groups and argued that they "provide an historical rationale in terms of a claim to common agnatic descent, for existence and structure of functioning groups" (1959:25-26, see also Burton 1987:4). Among the Melpa speakers group names like Jika, Mokei and Minembi were labelled as Great-tribe and Tribe-pair. A Melpa Great tribe, according to Strathern, is

> a loose linkage of a number of separate tribes in terms of a myth of common origins...often share a single mystical divination object...Their linkages may carry no political implications at all of contemporary alliances (1971:19).

However among the S. Wahgi these core group names do define contemporary war relations. In fact the distinction between 'brother in law wars' and the 'war of bird of

paradise' are directly linked to the historical relations between the Kuma, Nene and Dambnge groups.

Before I discuss the moral credit and debt relations between the roots and and transplant kin categories, it should be point out that the difference between the two social categories is that the shadow brothers groups are those who do not share the *minmaan substance* and the 'brothers' groups are those who share the same divination source. In the first case the individuals can marry each other's sisters and in the second case the rule of exogamy is applicable.

In the S. Wahgi history this distinction is traced to the initial migrant and host relations of the founding populations. When informants refer to ancestral parents such as Yuants and Wauge, Akmaagk and Minjsmaam, Kui and the Wilimbka bride, they think of the family units as a *kopam kambin*. This term is often used to describe both the founding ancestral parents at successive group level downwards of the contemporary social groups, and the breeding population which is engaged in the transactions of the 'planting substances' based on the religious notions of inheritance, transformation and the balancing of divine *minmaan* entity between donors and recipients.

The word *kopam* has dual meanings; it signifies (a) the grand father and grand child relationship and (b) the relationship either between the wife and her parent in laws or the husband and his parent in laws. *Kambin* means circular units and the idea comes from the root word *kambim;* the core thing, a central idea or a practice that emphasises the importance of centrality, roundness, secretive and sacredness. For example, the shield formation for conducting the revenge ritual is referred to as the 'circular shield formation' (see analysis of the designs of shields later). The thing that occupies inside a circular enclosure such as *min* would be regarded as the 'core object' (*kambim*). Rats and birds nests are referred to as *Koi* and *Kai min*. The *min* is the round nest and the rats and birds are the *kambim* that live inside it. The storage of ancestral worship objects and skulls inside the a round house is often referred to as the 'people's round house' (*akamp min*

gar). In a similar context the skull of the individual is the round house that harbours the *minmaan (kambim)* substance.

Underlying these related examples, is the importance of the reproductive capacities of females who are initially described as the 'touched partners' and once they have children, their status is converted to that of the 'base' or 'key source'. Therefore, a *kopam kambin*, as the minimal reproductive unit, consist of two sets of nuclear families; on the one hand is the descent group *(kopam)* and on the other hand is the pool of women *(kambin;* the possible inclusion of the agnates of the women) who are capable of exhausting the flexible rules of marriage and producing offsprings who will form a socio-political unit. The widest inclusion of the individuals are grand father-grand child *(kopam)*, shadow parents *(kopam)*, brothers *(angam angam)*, wives *(ambim;* the one he touched), brother in laws *(gukum;* shadow brother) and sister in-laws *(kamim)*. Normally a set of unrelated individuals take up residence in a locality and there are no historical divine source that prevents them from marrying the women within the group, except when the root and transplant connections are fully established. At least, we can assume that the founding population as shown in the origin stories is a breeding population between 15 - 20 persons. I shall draw evidence from the contemporary marriage practice to suggest how a breeding population is granted the *yi gukum* status and later transformed into brother groups.

The 'connected people'. An initial marriage between unconnected persons *(pulum napaim;* there are no roots) involves two transactions; (a) exchange of bride wealth *(amp kolme)* from the husband's group, and (b) 'they grease the woman' *(amp kopong gasim)*. The reciprocal payments from the wife's group along with the formal body decoration of the woman is related to the idea of 'grease'. As already mentioned grease is a general concept which covers attitudes towards fertility, procreation and material abundance. The act of greasing a woman symbolises the process of transferring

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and replanting the spiritual substances. The women are more or less the stock of transplants of previous stocks which become bases for further growth and continuity. Greasing woman is a process of making her fertile. She is meant to produce offsprings who will inherit the maternal substances planted by the root people.

The symbolic process of transplanting and transferring of the planting substances from a donor to a recipient group are mediated by selected 'paths' (*kep*). There are two sets of connected representatives. One represents the link between the husband's relatives and the wife. The other between the wife's relatives and the husband (husband relatives-*kep-kep*-wife's relatives). At the conclusion of the ceremony the bride is handed over by her brothers to the *kep* person between herself and the husband's group. Then the *kep* person from the husband's group acts as the person in between and hands her over to the male line. These *kep* people act as wife givers and takers.

The path people are described as those who 'led the hand of the woman and planted her in another area' (*amp angik ambik tu mogkenjip*). Essentially their 'biological connections' (sharing of the same divination substance) provide the initial path for social/ religious and material exchange between the two sets of unrelated people (affinal connections).

The diagram below shows the paired relations in the context of marriage transactions. Husband and wife (*yiam:ambim*) are equal partners and their relationships are formally cemented through the connected persons. The woman leaves her natal group and resides in here husband's residential locality and the immediate support she gains come from the connected persons on the husband's side. They act as shadow parents. If marital disputes occur the connected people act as the intermediary between the affinal groups. The affines regard each other as 'shadow brothers' (*yi gukum:yi gukum*).

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(a)   **Marriage**

YI (man)		*Amp* (woman)
Yiam (husband)		*Ambim* (the one he touched)

Kep (connected person)   *Kep* (connected person)

Husbands group   Wife's group
Angam/ Dam   *Kolme* (bride wealth)   *Angam/Dam*
brothers/fathers   *Kopong* (greasing woman)   brothers/fathers

Yi Gukum (shadow brothers)   *Yi Gukum* (shadow brothers)

                                            ROOT PEOPLE

(b)   **Becoming a person**   (*se danjip*)

Fathers contribution   Mother's contribution
Kopong (grease)   *Kopong* (grease)
Ngokom (liquid)   *Maiam* (blood)
Dam (Father)   *Se danjip*   *Maam* (Mother)
                    (joint together)

                                     BASE

Kipe (ancestral ghosts, gods)   Returning the planting substances
Minenga (persons from above)   dead/ head payments
                                    cross-cousin marriages

(c)   **Inheritance of divine substance (minmaan)**

                         Minmaan

Min   *Maan*
above   below
round   shadow

                   Minmaan/Akamp

(shadow image)(people, physical self)

                                   TRANSPLANTS

(d)   **Death**

Maagk Ngants (earth skin)   *Minmaan (*shadow image)

*Kipe Ming (*cemetery burial place)

KIPE

Wahgi aak (the grassland)   *Kangi* spirits
Omb kone (domestic environment)   *Omb Kipe* (domestic gods)
Ond pene (Tree gardens)   *Kipe Tanji* (untamed gods)
Kimp aak (Alpine fores)

Physical world   **Spirit world**

Figure 5.1. The paired partnership in (a) marriage transactions; (b) the process of procreation of the physical self and the shadow image; and (c) the transformation of the shadow image into the ancestral spirits.

It should be noted that the paired relations can be viewed vertically (diachronic links between the present and the past) and horizontally (synchronic relations). For instance, a sister's husbands group and the wife's agnatic group regard each other as shadow brothers, but when the wife has children, the mother's brothers are regarded as the root people. Similarly, the 'earth skin' and the 'shadow image' are seen as paired entities but after death the earth skin is said to decay and return to the physical landscape, and the shadow image inhabits the invisible landscape. The above model can be used to discuss a range of social practices, including that of warfare.

The inheritance of the divine substance. The contributions of the father towards the act of procreation are categorised as 'liquids of the skin' (*ngants ngokom*). Whereas the mother's contribution would be described as 'grease' (*kopong)*

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and 'blood' (*maiam*). However the primary concern here is the planting of the divine substances. The act of spiritual procreation is described as the union of paired entities (*se danjip*; they stay as pair but join to from an entity). The father's contribution is *min* and the mother's contribution is *maan*. These words are paired to become the 'shadow image'.

I make this distinction by separating the paired word *minmaan* into separate meanings. As we already saw, *min* is derived from the idea of roundness and circular features or a protective circular unit which harbours other things inside it (*akamp min*; see also Lutzbetak 1956, Aufenanger 1959). Thus a skull is the circular protective enclosure that contains the thoughts, rationale and social conscience. It is inside the head that the thinking aspect exists but in a transparent form; a shadow image. The *min* is the aspect that a person receives from the father's line or descent group after the naming of a child.

Shadows are often described as *maan*. It also means things that are peripheral but essential to the functioning of the central things. It could represent below, exterior and or it refers to the object that lives as a transparent form inside the head. The term is undoubtedly connected to the mothers status of being a 'touched partner' (*amp*) to a 'base' or mother (*maam*). The expression *maam* (base or core thing) and *maan* (shadow) are inseparable entities. The shadow is the image that lives inside the head. Often the former term refers to the biological recognition of the base of the transplants and the latter word is the spiritual contribution of the maternal substances but in main the expression *nim maan-im* (your mother or your base) also implies your shadow image (*min/maan*).

There is another term for defining base, that of *mem*. The moving things which become the base are described as *maam*. Thus a mother is a *maam*. Her spiritual contribution is the shadow *(maan)*. Static living things, specifically the botanical component of the cultural landscape, are referred to as *mem*. Plants like bananas, taros and sweet potatoes have a *mem* (see the definition of *mai* among the Maring; Healey 1990:44, Rappaport 1968). The shadow image lives in the head *(peng min)* and by

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implication takes up residence in the fathers house, but the offsprings acknowledge the role of the mother's people. The pairing of social groupings in the marriage transactions are linked to the expressions associated with the act of procreation.

Becoming a person. I noted that for the S. Wahgi, human beings are said to pass through a life cycle and that death only marks a transformation from the ordinary world into the spiritual world. Individuals see themselves as being planted by mother's agnatic group and the human life-cycle is conceptualised as akin to the growth and decay of the cycles of plants and creatures. When a baby is born it does not have the thinking aspect. After the hole at the top of the skull has closed the child is given a name and said to inherit the divination substance. The naming of the child involves the reference to the person from above the skies, by the parents as an acknowledgement of the child as a gift from the gods.

The ceremony is usually conducted in the afternoon just before the sun sets. The namesake of the child dresses himself as a *Kipe* and hides behind the house. The child will be held by hand, facing towards the sun set, and the person incharge will state; 'the one from above the skies (*minenga*), I give this child (name of the child is formally announced) to you. Provide him with thoughts (*bu*), deeds, wisdom (*numaan*) so that he can become a good person (*mambenim kaa*; straight behaviour) within the community and enable him to live a long lasting life' (*mogk ond bek tuk pund*; he will stay and rot, decay like a tree). The namesake, imitating the role of the *Kipe*, rushes out and gets the child.

This social practice concludes the first phase of the initiatory rites where the child's *minmaan* enters the body. After the ritual the people make a distinction between between 'earth skin' (*maagk ngants*) and the 'shadow image' of the child. The other invisible self is that entity that gives thought to persons (*numaan*) and enables the

individual to adopt a personality. It is said to have identical appearance and behaves similar to the physical self (see Strathern, A. 1970).

While a person is sleeping, the soul leaves the body temporarily and the dreams are often interpreted as the shadow-soul's encounters with other beings in the world of the *Kipe*. One is not allowed to disturb a person who is asleep; the shadow image is wandering off into the external world and may not have enough time to return back to the person. Sleeping is almost seen as dying. When a person is sick the root persons come to see him and tie the hair together so that the shadow image cannot escape through the skull.

As soon as a person dies, the other self is said to have departed the earth skin *(maagk ngants)* and the *minmaan* escapes through the hole through which it initially entered *(pen min)*. A extended period of mourning corresponds to the time given for the shadow-image to settle down in the other invisible world. The corpse is buried in the communal cemetery. Normally, food left at the burial places and crops that were planted by the deceased persons are allowed to rot and decay. The understanding is that the souls have to make new gardens and before their crops are ready in the other world, they have to live on the food supplied by the living relatives. After the mourning ceremony is terminated in a ritual called 'they take the platform down' *(pake se mene kesim)*, the mourners will return to their normal life and the *minmaan* of the deceased person which lives in the communal burial places is granted the status of *Kipe*. Thus, the death of individual is seen as the return of the physical body or earth skin to the soil and the departure of the invisible shadow image to the world of the spirits.

The root people. The sister's child is the 'cutting or transplant material' of previous source, which is traced through the mother *(maam)* to the mother's agnatic group. They are labelled as the root people. The S. Wahgi say, 'You as a person you stay because you have a base. The roots are spread out so that you live' or as 'a branch

attached to the base' (*Nim akamp min-eh pulum paim. Dumbuk kere min*). The mothers brother's subgroup are often credit for providing the growing substances which include 'grease', 'blood', 'thoughts' and 'knowledge'.

The children are expected in their life time to make return payments to their root people. A mother's brother makes claims on his sister's children on the grounds that it is his sister's bag (*kon*) that begets the children. Since the *minmaan* or mother's shadow is contained in the child's *peng min* (head house) returning the *minmaan* substances to mother's brothers group which include prescriptive cross-cousin marriage (one of a woman's grand daughter should marry into mother's brother's subgroup) is often phrased as 'I put my head in the net bag and return it'; *Na peng kon to ngond* (see O'Hanlon & Frankland 1986 for details).

Lack of consideration of this principle is interpreted as a religiously immoral act and the failure to return the planting substances to the root persons can result in sickness, defeats in war and infertility (food shortages, soil depletion and low birth rates among female population). The curse of the mother's brother is summarised as 'taking ghost away'. The gods can punish them, or the 'root people' have the power to take the *minmaan* which they planted through their sisters. Mother's brother conceal their anger and a unpaid moral debate can be used as a source of war talk when the shadow brother groups become potential opposite fight partners.

In the context of warfare the moral justification for the Tangilka's defeat during the *moss* war with Kopanka is that it was not right for Tangilka, as a transplant of Kopanka, to fight against its own base. Therefore the Tangilka were haunted by the mother's brothers' curse and they were punished for fighting against their source people (*Kipe sim*, see O'Hanlon & Frankland 1986). According to the Kopanka, the Tangilka was a migrant group and because of the continued involvement in other peoples' wars, they were condemned by the principal fight partners and had more enemies than allies.

The transplants. 'I return the skull in the netbag' is a Wahgi expression used by O'Hanlon and Frankland (1986) to discuss prescriptive cross-cousin marriages. This is a practice widely reported among the Central Wahgi. While the description of such a practice and the explanation for it have been offered by various authorities, the primary objective in this analysis is to assess the importance of the above expression, returning the *minmaan* substances, which would enable an understanding of the history of warfare. O'Hanlon and Frankland's perceptive attempts to extend indigenous perceptions of the mother's brother (MB) and sister's children (ZC) relations to broader structural patterns also provide ideas of interest to prehistoric kin relations. Some aspects are summarised in the following statements.

> The MB and parental maternal kin are prior to their descendants who are thus indebted to them. Similarly plant stock is prior to the cuttings taken from it, which owe their existence to it (1986:187).

They continue that the crediting of power to MB and parental maternal kin is only one manifestation of a fundamental concern of Wahgi

> - health, group size and strength- are generally felt to lie back in the tangled social relationship of *the past*, where the actions of the ego and his forebearers have established a complex set of moral debts and credits (ibid:187 italics mine).

In the previous discussions, I noted the difficulties of organising the Wahgi attitudes to time in a chronological sequence. It is influenced by the understanding that the past and the present represent two different landscapes. They are dependent on each other in that one is the mirror reflection of the other. As paired entities, the past actively interacts with present social strategies.

Apart from the attitudes towards the past as a timeless landscape, the difficulties of using genealogies, in this case the relationship between the ego and his forebearers, is that they do not predict the number of generations that elapse between the various ancestors. I provided a contrasting explanation for the absence of accurate ordering of the genealogies. At the same time I argued that there is a more substantial chronological

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framework that not only summarises the ordering of names in the descending order but reverses the links between the past and the present in an ascending order. This is the key chronological framework which preserves aspects of the history of warfare. O'Hanlon and Frankland highlighted this central issue by stressing that the individual is planted by previous stocks.

Achievements as well as failures are measured in terms of the various stages a plant grows and reaches maturity. The individuals trace ancestral connections through such idioms like base, stock, roots; shared thoughts, deeds, maternal substances and engage these kin-category idioms in contemporary interpersonal or group relations. Drawing an analogy from the biological notion of growth, it is often expressed that a plant survives because it sustains its food from the base. Similarly, individuals honour and respect the previous generations, namely the mother's group, for providing the *minmaan* substances. The *omblom* payments are made two generations below the initial *yi gukum* relations .

From an historical perspective, one way of understanding the history of Wahgi people is to use the passage of human life as a unit of measurement. I shall attempt to establish the interval of time it takes for the conclusion of moral credit and debts; the returning of the planting substance to the root people. In order for the religious principle to operate the 'touched partner' has to go through her *moss* period, to be formally 'greased' and to be transferred by the connected people to her husband's home. Then she has to become a 'base'. This procedure requires more than 20 years. She marries between the age of 18 and 20.

The transplants or children (males) make their head payments to their root people either by contributions of material wealth or by returning a daughter back to their mother's people. Normally the sons get married and have children before they make the 'bone' *(omblom)* or 'head payment' *(peng kon to)* to their root people. On the average, males reach between 22 - 25 years and to establish their social prominence in their

father's agnatic group before they return the *minmaan* substance. A daughter becomes an *ambik moss* before she is married. One has to convert the marriageable age of the daughter as an extension to the life cycle of the root, base and the transplant sequence.

In terms of age, the mother is between 18 to 25 years before she has children. A son reaches approximately 20 - 25 years before he gets married. The daughter is between 18 - 20 years before she gets married. When she becomes a base, the previous transplants (her father) now consider themselves as root people. Another 18 - 20 years elapses before the next *minmaan* transactions commences. The average cycle is approximately 80 - 100 years and based on the following equations; (a) mother *(base)* = 18 - 20 years, (b) son *(ombom)* = 20 - 2 5 years, (c) grand daughter *(gapam)* =18 - 20 years and (d) transplants of the grand daughter = 20 - 25 years (end of a cycle). The table below shows flow and reverse flow of the *minmaan* substance across the years.

Interval of years	Wahgi idioms	Meaning	Kin relation
	pulum	root people	Mother's group
18-20 years	*maam*	base	Mother
20-25 years	*ombom*	transplants	Sons
18-20 years	*ambik*	touch partner	Grand daughter
18-20 years	*maam*	Base	

Table 5.1. The cyclical patterns of moral credits and debts.

A breeding population is engaged in the transactions of planting substances, based on the religious notions of inheritance, transformation and the completion of *minmaan* between donors and recipients. If the social interactions between two unrelated groups *(yi gukum)* works within the cultural expectations of spiritual harmony' the obvious manifestation of the good relations between the gods and the people is that there are plenty of children. There is a realisation of the intimate religious connections between the past *(Kipe kone)*, the present *(Omb kone)* and the future (dependent on the complete

transactions of *minmaan* substance) and in order to acknowledge the importance of fertility and abundance, the members of the emerging social units adopt phrases which symbolises the important religious connections to the past sources.

The brother and shadow brother group relations. The previous discussion indicated that social category that defines initial marriage transactions between unconnected groups is described as 'shadow brother' *(yi gukum)*. A woman is a 'touched partner' but is also a potential 'base'. The choice of marriage partners between the two groups increases and in time the status of 'migrant' and 'host' is converted into that of shadow brothers and /or marriage partners, and further in time into root and transplants.

The wider implications are that the transactions of the planting substances (which basically means the exchange of women) involves a pool of women in their prime age of reproduction between *kopam kambin* units over a number of generations. These units are defined as shadow brothers and by rule do not share the same religious substance.

When the base and transplants relations are well established, the transplant people which consist of the sons of a pool of women from a group use the names of their mother's groups to acknowledge the inheritance of the planting substances. They identify themselves as the 'base' (Ka) of the core breeding population, the 'stock/ shoot' (Kup) and 'vine/ branch/ ropes' (Kanem 1+2) of the previous cuttings. Therefore words like, Ka, Kup and Kanem, which are used to define the various group levels, respectively from the biggest (the base) to the smallest units (vines) in ascending order, not only condense the genealogies into an interval of 3 - 5 generations but also religiously signify the balanced transactions of *minmaan* substance.

The suffix idioms associated with the group names are symbols of a group's *omblom* payment. What started as a single marriage transaction between a pair of

unrelated family units increasing the size of the population within 1 - 2 *minmaan* cycles reach the carrying capacity of a 'grid' within a field system.

Therefore a distinction is made between *kopam* and *kambin*. The *kambin* category represents the woman's social position and role in the reproduction process. Whereas *kopam* refers to descent kin categories, and that is a 'relationship mediated by a parent between himself and an ancestor defined as genealogical predecessor of the grand parental or earlier generation' (Fortes 1969:281). The Ka groups emerged after the *yi gukum* relation were established and these groups often assume a patrilineal descent dogma, which based on the notion of 'one blood' (*maiam endi*), 'one father' (*kopam endi*) and /or the inheritance of the divination source from same ancestral parents. The descendants regard themselves as brothers and out of this relationship that the war of bird of paradise emerges (see Chapter 3 & 6).

I shall now return to the genealogy of Kondil Kanem discussed in the previous chapter. It contains evidence of the marriages brought about by the consequences of war and shows that in fact the population of the war-making units has increased, rather than declined (as reported by several researchers such as Vayda 1968, 1971, Chagnon 1983, Harris 1984).

Three examples are used to demonstrate the effects of war on the marriage patterns; (a) the marriage of the widows of the warriors within the victim's group which gives rise to two kin categories; the *moss* and the *kangil* children, (b) the exchange of women between the Kanem units of the opposite fight partners that ought to provide a links through the root, base and transplant connections and (c) the exchange of women in the context of host-migrant relations as illustrated in the origin stories.

1. The *moss* and *kangil* children.

The practice of polygnous marriage is a preference in Wahgi culture but when a husband is killed in a war, the reproductive capacity of his wife is taken over by someone

in his own group. The widow of the deceased warrior should by rule marry a man within the dead man's Kanem group. This is to ensure that the social responsibilities of raising the children of the previous marriages are shared within the community by the dead warrior's relatives.

Under the social principles of multiple marriages, S. Wahgi warfare does not reduce the population but encourages a primary biological function; to increase the potential for the fertile widows to produce children from two husbands. It opens up the biological potential for the fertile females to breed to replace themselves and the husbands killed in the war, and to have more children. When a woman gives birth to children from two marriages, the siblings from the first husband are described as the 'children of the *moss* woman' *(moss amp ngaakim)* and those from the second marriage are classified as 'the children of the *kangil* woman' *(kangil amp ngaakim)*. Whereas the children of co-wives are known as 'children of the opposite or rival pairs of the same sex' *(kiam kiam ngaakim)*.

The genealogy of Kondil Kanem demonstrates how the death of a warrior enables the widow to marry a second husband and therefore she creates two social groups; the children of the woman after her *moss* period formally ended and the children she had after she became a *Kangil* woman (Figure 4.1). The latter social category emerges from the early death of her husband. Warfare is one of the causes and it should be noted that the names of the individuals killed in warfare associated with war marriages noted below are taken from the Table 4.1 in Chapter 4.

Olal Tuni (1890). Olal Tuni married a Bendik Kup woman of Kamblika. She gave birth to two sons (Gipis and Dop) before her husband was killed. The widow remarried within the Kumu Kanem (Alki Koiam) and she gave birth to another son. Oken Alki (1910), one of the Kumu Kanem war historians, married a Konomb Gaime Kanem woman. She gave birth to three sons (Pinge, Dop, Gal). The first born Pinge (1937-

1982) married a Kamblika Bendik Kup woman. He had two sons and three daughters before he was killed in 1982. The widow remarried a Kumu Kanem and she has another daughter. If she has a son in her *Kangil* status this would add to the two she already has from the *moss* marriage. It means that she is capable of replacing the war death. The second son Dop (1939) has three sons and three daughters. The last born Gal (1948-1985) died of natural causes. A hundred years later the widow's descendants of first *(moss)* and second *(kangil)* marriage constitute the minimal reproductive and the potential socio-political unit described as *kopam kambin*.

Oken Tuni (1920). More than 20 years after Olal's death, his brother Oken was killed along with the three other Kumu Kanem at Tumba. Oken Tuni married a Nene Mandaim Kanem woman. She gave birth to two sons; Kugam and Kapak before her husband was killed. Kugam (1919) has 6 children (four males and two females). The first born son, Koken (1948), has three children (two sons and a daughter). Kapak (1917-1975) had three children (two daughters and a son). After Oken's death Mapse Kuni married Muke Tapi and gave birth to three sons. The first born, Yuants Muke (1930), has five children (2 daughters and three sons).

During the two bouts of war (1890-1900 and 1920-1925) Tangilka lost two warriors. The loss was replaced by the two widows in their social category as *kangil* women. Between them they give birth to four males. Out of the four, the current population of the *kangil* category is more than twenty people. When the children of the two women in the *moss* category are included the population is twice as big as it would have been under *moss* circumstances without a war. It therefore seems that war deaths do not lead to a decline in population. Rather a positive correlation can be expected; the more married warriors with children who are killed in the battlefields, the greater the opportunity for the wives in their prime age of reproduction to bear children in the *moss* and *kangil* category of marriage.

In short, there are more than fifty people among the Kumu Kanem who would otherwise not have been alive today, if S Wahgi practiced monogamous marriages and if there were heavy casualties in the battlefield including the breeding population.

2. War against the donors of the divine substance.

The distinction between brothers and shadow brothers, as described above, also defines the two types of wars. The 'war of the bird of paradise' between the brother groups involves a permanent ban on creating cross-cutting ties, notably the exchange of women. The 'shadow brother' category, on the other hand, implies by definition that 'we fight with those groups we exchange women'. Under this type of war, one of the rule is for the offender's group to send a 'pool of women' to the victims group after the termination of the war to compensate for the loss of lifes. The objective is to 'plant' their daughters in the opponents groups so that they become 'bases' and replace those killed in previous wars. Obviously, the relationship between the root people and the children of their sisters is expected to serve as cross-cutting ties which ideally should diffuse future hostility and warfare. This is not always the case because the rules are meant to have a reciprocal or balance effect.

If one group like the Kondil Kanem maintains cordial relationships during the conduct of war with the transplants in the enemy side, the other will reciprocate similar actions. If one side promotes hostility, the blood ties on the other side will response in a similar manner. I shall draw some examples from the Kondil Kanem genealogy

Kamblika and Tangilka became formal opposite fight partners after the Tangilka and Kopanka *moss* war. But root and transplant connections between Kugim Kup and Kondil Kanem are traced back to the marriage of Ukum Koimenga brother of Dau who was killed in the Por Koki war. Koimenga married two wives. One of them is said to have come from the Paka people of Kerowagi. As a *moss* woman she stayed with her

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sister who was married to the Kugika. She courted the men from the neighbouring groups and subsequently married Kumu Kanem Ukum Koimenga.

Kini was the son of the Paka wife and he also married two wives. Minwasni was a dark skin woman from Goigapam of Tuimekup. Kondil Taimi was a light-skin woman from Kugim Kup of Kamblika. The Kondil Kanem and Nganimp Kanem pairs maintained their identity by referring to the skin colour of their female ancestress. The Goigapam of Tuimekup act as the root people of Nganimp Kanem. The Kugim Kup of Kamblika are the root people of Kondil Kanem. There is a general understanding that Kondil Kanem and Kugim Kup must avoid killing their own people (or root people on both sides) but when one group terminates it own transplants, the other carries out a similar action. Two examples are drawn to demonstrated the reciprocal actions usually taken by the people share the same substance after their political unit on this fathers' side officially becomes a opposite fight partner of their mothers' group.

In the enemy territory: first contact 1933. I established that the Tangilka migrated to Minj Ngok in the 1920s. However a decade later some of the Kumu Kanem were living in the Kamblika territory. They elders recalled with accuracy the flight path in 1933 (Burton 1984). They claimed that they were making a communal garden in the Kamblika territory when they first saw an aeroplane flying into the Wahgi Valley. The Kumu Kanem had lost four men in last war and therefore one would expect that the relationship between Tangilka and Kamblika would be very hostile. What were they doing in the enemy territory after they a suffered heavy loss and defeat? Was it not more safe and more secure for the entire Tangilka to return to their abandoned land?

Two of the informants Oken Alki (b. 1910) and Kamne Mukap (b. 1908), who participated in gardening activities in the enemy territory, said that it was at the invitation of their 'root people' and/or 'our mothers' (*manjina*) that they returned to the enemy territory. They argued that it was much safer to live with the donors of the *minmaan*

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substances than maintain a political status as opposite fight partners. They had to return to their father's territory, that is the Tangilka territory, through the connections of their mother's people.

The sovereign relations of Tangilka and Kamblika as opposite fight partners defined a formal period of hostility and the actual fighting was conducted by the segments below the clan groups. In particular, the Kanem group built up their own diplomacy with their opposite numbers and in some cases, they maintained open links with the enemies, This was principally based on the notion of root, base and transplants. Since the Kondil Kanem are the sister's children of Kugim Kup, those who returned to the enemy territory were, in S. Wahgi kinship classification, the were true 'owners of their mother's brothers land' *(maagk dam)*. In other words, they were granted a political status (independent Kanem unit) but their presence in the enemy territory was classified in terms of the mother's contribution towards the inheritance of the *minmaan* substances.

The 'father of the land' social category means that the Kondil Kanem who took up residence in the enemy territory in 1933 were by virtue of birth 'Kamblika'. Any attack by other members of Kamblika could have created divided loyalties among the Kamblika themselves. More importantly if the Kondil Kanem chose to remain in the Kugim Kup territory and participate in many other social activities they would have to be granted the status of 'woman's children' *(amp ngaakim*, for detailed discussions on affiliation to groups, see Strathern 1972).

1979-1986. Death of Pinge and Komoltai. In the most recent war, Kumu Kanem and Kugim Kup created and fought on the same battlefields along the common border. As owners of the battlefields they were always under pressure to start every set-piece battle but it was normally the case that they opened the battlefields for the other fighting forces of the Kanem groups. During the 8 years of formal relationship as opposite fight partners the Kondil Kanem did not kill any of the Kugim Kup. Similarly

Kugim Kup did not terminate the life of their own transplants. Except when Pinge of Kondil Kanem (his father's root people were Bendik Kup of Kamblika) was killed, the Kumu Kanem responded by killing their own transplant or their sister's son, Komoltai of Paka Kanem (Komoltai's mother was from Ngumai Kanem).

These two examples show that the root and transplant relations between the opposite fight partners can work in two ways. They can either diffuse potential hostilities and/or create a condition where the sister's children become the targets of reciprocal killing. The Kumu Kanem equate the death of Pinge with the killing of Komoltai. The transplants of the two 'shadow brother' Kanem groups were terminated by the root people themselves (*Kipe sim;* the take away the *minmaan* substances). The Kumu Kanem have already sent two of their daughters (Ware and Peni) to the Kamblika for the termination of their transplants. It is expected the Kamblika return some women for the death of Pinge in the near future.

I want now to assess this history of war in terms of host and migrant relations of Tangilka. The origin stories simplified the flight of Tangilka into *yi gukum* relations and this model is demonstrated in the Konombka (host) and Tangilka (migrant) relations from the 1800s onwards.

3. Change of marriage partners (Konombka and Tangilka 1800-1989).

The Tangilka and Kopanka were single fight partners from 1600 AD to 1800 AD. After their *moss* war, they maintained a political status as opposite fight partners. The Kamblika supported the Kopanka. The combined forces of the two brother groups defeated the Tangilka in every bout of war after the death of Kondil Kanem Koime (1800-1940).

The change in war partnership in 1979 enabled the Tangilka to retain their territory in the Numants Valley, something they had never been able to do before. Although, the two groups lost the bulk of the *Kul aak* and *Omb kone* to the Kamblika,

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they were able to defend themselves by using the Tapia ridge as a wall preventing the Kamblika and its allies from penetrating deep into the Numants Valley. This implies that for the first time the wholesale migration of the Tangilka into the Konombka territory was no longer possible. However, following the traditional pattern, the Tangilka evacuated the bulk of the civilian population to the Konombka territory. There were well-established kin routes and the Konombka received most of the transplants and /or in other cases the transplants invited the root people. Only the able fighting population remained in the Tangilka territory.

One of the consequences of the war was that the Tangilka young men could no longer court girls from the four dominant neighbouring *yi gukum* clans (Nene Muruka, Kamblika, Kumngo, Komonka). Therefore the eligible marriage partners had to come from the single fight partners which include Kopanka, Tuimekup, Golikup and Konombka. Marriages have been restricted to single fight partners. The Kumu Kanem gave six of their daughters in marriage to the Konombka and five to the Kopanka. They received five women from the Kopanka and five from the Konombka. There are extensive marriages among the other 11 Kanem groups of Tangilka but these are not included in this discussion.

One of the marriage transactions is illustrated in the plates (5 & 6). Basically bride wealth ceremony summarizes the Tangilka's history of migrant status from 1800 to 1940 and the marriages resulting from the most recent wars. The history of the Tangilka's war defeat can be traced in the Kumu Kanem history of marriage.

Chronology	Name	Marriage Partnership	
		Tangilka	Konombka
1850-1900	Galinga	Kondil Kanem (Tapi)	Gaime Kanem (Tun*)
1920- 1930	Wilngal	Ngumai Kanem (Kupil)	Tau Kanem
1979-1986	Koken	Kondil Kanem (Tapi)	Tau Kanem (Kuni*)
1989	Koken	Kondil Kanem (Tope*)	Tau Kanem (Yiporo)

Table 5.2. The history of Tangilka migrant status correlated with the history of the 'root', 'base' and 'transplant relations' with the Konombka. (*)= Females.

The list of the names of the individuals in the second column are those who appear in the bridewealth transactions illustrated in Plate 5 a and Plate 6. I discuss some aspects of the 100 years of history of war marriage between Konombka and Tangilka.

1850. Gaime Kanem Galinga. In Plate 5 the person dressed in western clothes standing beside the bride is a Konomb Gaime Kanem. Galinga is a root person to the bride's husband. The root, base and transplant history goes back to the *moss* war between Tangilka and Kopanka. Kondil Kanem Tapi married Tun of Gaime Kanem. She gave birth to three sons and a daughter. The first born Olal Tapi was killed while fighting for the Konombka against the Nene Muruka between the late 1800s and early 1900s. It shows that the Tangilka were fighting along side the Konombka during Konombka's war with it's principal opposite fight partners from the mid 1800s onwards. More importantly, Olal was a transplant of the Konomb Gaime Kanem. Mugo married Mapse Kuni, the widow of Oken Tuni killed in the early 1920s. Teke married a Tuimekup woman. She gave birth to three sons and two daughters.

The marriage demonstrated in the photographs is between the great grand son of the Konomb Gaime Kanem and a Konomb Tau Kanem. The Gaime Kanem elder represents the root persons on mother's brothers side because the current marriage is between the grand son of Teke, transplant of Gaime Kanem (Tun's second son), and a

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Tau Kanem woman. Therefore the donor-recipient relations between Kumu Kanem and Gaime Kanem that was created in 1890 provides the path for handing over the bride to Wilngal who represents the husband's group in this bride wealth ceremony. There have been marriages between Kondil Kanem and Gaime Kanem for over a period of 100 years. Galinga still acts as the root person to the his grandfather's sisters sons descendants and as a Konombka becomes the connected path for the bride's relatives, the Tau Kanem. The important issue is that the migrant-host relationship between Tangilka and Konombka can be traced through such marriage transactions.

1920-1925. Kumu Kanem Wilngal. Wilngal Kupil, the person dressed in traditional clothes and in front of the bride is path person between the Kumu Kanem and Tau Kanem. He is a transplant of the Tau Kanem. The marriage between Ngumai Kanem Bosip Kupil and a Tau Kanem occurred when the Tangilka migrated to Minj after the death of four of their warriors. The distribution of the Kumu Kanem in the Konombka territory occurred at the second order Kanem level. Some of the Ngumai Kanem were with the Pipi Kanem, others were with the Tau Kanem. The Ba Bakme Kanem were with the Pong Kup. The Kondil Kanem and Nganimp Kanem were with the Konomb Gaime and Anjspa Kanem.

I noted that Oken Alki of Kondil Kanem married a Gaime Kanem woman. He said that he brought his new wife to his root people's home (Kamblika) and was making a garden along with the Kamblika in Tsigmil when he saw the first plane that flew over the Wahgi Valley. That was on the 27th of March 1933 (Burton 1984a). Wilngal Kupil is an example of Tangilka's migrant status in the Konombka territory from the 1920 onwards.

1979-1989.Kumu Kanem Koken. Behind the bride is the current root and transplant relationship between the Kondil Kanem and Tau Kanem. The bride's son

(Koken) is held in the arms of the sister's brother (Kuma). Two years later (1989, plate 6), the transplant (Koken) of the Tau Kanem stands beside the orator (Ombin) and acts as a *kep* in a bride wealth exchange of a woman from Tangil Kumu Kanem who married a Tau Kanem. At the age of 7 years he takes the symbolic role of obligatory maternal transactions acted out by Galinga and Wilngal.

Koken will symbolically continue to perform the role of the connected person bridging the flow of *minmaan* substances. He may decide to make his own head payments when he has reached beyond the age of 20, gets married and has children. If this transaction is to be in the form of a daughter, he has to wait another 20 years for the daughter to become an *ambik moss*. Koken will become a root person after his daughter has given birth to children who will regard his sons as their root persons.

If the traditional marriage pattern is kept alive, Koken will be dead but it will be one of his grand sons who will act as root person and provide the path for reverse flow of *minmaan* substances. By then it will be beyond the year 2020. The responsibilities Galinga and Wilngal take demonstrate precisely the marriage transactions resulting from warfare that give rise to host and migrant relations back in 1850-1900 and 1920-1925 respectively, and Koken represents the recent bout of war between Tangilka and Kamblika (1979-1986).

Conclusion

The central issue addressed here was the analysis of the immediate kin relations based on the notion of the inheritance of the divine procreative substances, which were seen as the combined contributions of two previous sources; the mother's and the father's social groups. Thus the individual's social relations are nested on two historical conditions: (a) he is as a transplant of a previous source which is acknowledged through the female line and (b) he acts as a root person towards his father's sister's children.

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The inheritance of the father's *min* and the mother's *maan* is religiously sanctified and emerges from two themes: (a) the notion of planting substances which is seen as the product of the union of marriage partners and (b) the expression of equality based on the social exchange principles. The host and migrant relations are described in terms of flow and reverse flow of the planting substances. If the transactions involve a pool of women, the females are likely to produce a social category of individuals, within a patrilineal descent group, who will predominantly share the same roots.

The fertility of women is of prime concern in Wahgi life. Women have an important role in warfare in two ways: (a) through the notion of balance achieved by the opposite fight partners by giving women to the war victim's group hoping that they would give birth to children to replace the war deaths and (b) by allowing the widows of warriors to remarry within the victim's group, which also creates a potential for recovering the loss of life in war.

The examples from the genealogy of Kondil Kanem showed the consequence of war on the reproductive capacities of the two widows. The descendants of women the trace their connections not only in the order of one blood and one father but also regard themselves as the children of the mothers in their *moss* and *kangil* status. They constitute a *kopam kambin* within the minimal descent group and given time they will emerge into a socio-political unit within a father's line.

The definition of the individual field of social relationship does not necessarily radiate from the ego outwards, rather it follows the logic of plant growth. We know that the roots of plants are older than the bases, and the base are older than branches. The conversion of individual life spans includes that of the 'root' (*pulum*), 'base' (*maam*) and transplants (*ombom*) involving an interval of a hundred years between the donors of the *minmaan* and the transplants invoke a fixed time scale. The complex pattern of kin relations function as symbolic elements of shared substances and which prescribe marriage rules, right, obligations and inheritances (property as well spiritual substances).

In the course of three to five generations, not only do the offsprings return the planting substance (i.e, material payments or return one of the mother's grand daughter to the mother's brother group) as a sign of success in fertility and expansion in group numbers but also the transplant people reproduce themselves to the carrying capacity of a social political unit. In Wahgi such unit is classified as 'men within a grid unit.

At the group level, these *kopam kambin* units for group identity purposes, call themselves the 'stock, 'vines' of the root peoples groups. The identity reference to group names is a socio-religious act and is another way of honouring the *Kipe* forces by saying that we are the shoots or vines of the previous transplanting materials (the exchange of women).

The immediate filial ties also provide the basis for discussing the process of group reproduction, continuity and segmentation. An individual's field of social relations is dependent on the links to past sources and the ideas on the filial ties are based on expressions like root, base, and transplants. Such framework, partly derived from the biological notion of stability, gradual change and repetitive cycle, provide additional check on the authenticity of the oral history of warfare.

The basic kinship structure is a bilateral one, based on the ideology of the combined inheritance of life giving substance from two groups. Though the ideal war-making units in the highlands are patrilineal descent groups, I argue that the role of the paired relations regarding the equal status of the father's group and the mother's group, the constitution of the religious *min* and *maan*, are decisive factors in conduct of war.

Chapter 6. Group structure

Introduction.

As we have seen, it is quite difficult to label S. Wahgi warfare as a "total war". An understanding of the historical antecedents of contemporary war actions and interactions is necessary. A chronological sequence of the last 300 years of war history was proposed, based on an assessment of the antiquity of the origin stories and the reconstruction of the genealogies. Within the genealogical framework, I attempted to illustrate the recording of the war death and how such consequence of war affects marriage relations. The history of war marriages provided further evidence of the origins and continuation of Wahgi warfare.

In this chapter I analyse the diachronic processes of the S. Wahgi segmentary social structures as an independent source of evidence for supporting the various phases of warfare (*se danjip kunum* 1600 AD, *moss* wars 1700 AD, *yi gukum* and *opo karai* wars 1800-1900 AD). To highlight both structual normality and abnormality in group structures, I will refer to the plant metaphor of shape and cyclical growth. This permits to isolate three distinct structural categories or positions (the 'fathers of the land', the 'migrants' and those that were permanently dispersed), and to understand some of the present socio-political situation in view of their antecedents in prehistoric warfare.

Patrilineal descent systems - a review.

Kinship studies are indeed a cornerstone of anthropology, and I have referred to the works of the specialists of the Wahgi cultures. There is little information here to add to the existing literature. However, given that warfare is a group affair, I will discuss some kinship aspects in order to clarify the strong historical relations between contemporary society and warfare. Before presenting my own terminology and

interpretation of the Wahgi group relations, I briefly note some of the problems associated with the study of the patrilineal descent systems.

Though the patrilineal descent system was considered typical of most, if not all, highlands societies, what the people said their kin categories were and what they actually practiced in relation to descent idioms, inheritance and succession to office of leadership "had been the subject of the most protracted debates in all of the anthropological literature of the highlands" (Feil 1987:128). In addition to the previously noted apparent lack of lengthy genealogies among the Wahgi, there exist other areas of difficulties; (a) the lack of acceptance of consistent analytical terminologies defining group structures by researchers, (b) the lack of correspondence between segmentary structures, population size and other corresponding functions, and (c) the incorporation of non-agnates into patrilineal descent groups. As well, the tendency to use the African kinship model has proved problematic.

Terminology. In the introduction to the chapter on Melpa idioms, Strathern (1972:6 - 7) stated that the ideal procedure for analysing the social structure of a society whose language and culture are clearly different from the anthropologist's own "is to find an adequate means of translating terms in the language he is studying into the language he is writing". Accepting that there are semantic difficulties he argues that the anthropologist often has a clear procedure of defining analytical concepts and examining the accuracy of the peoples views, and whether their actions corresponds to these anthropological concepts.

In order to reveal the underlying structural principles of recruitment, property rights, social obligations and succession to offices, groups were defined in succession from the maximal political, territorial and military unit to the minimal nuclear family. Down the segmentary hierarchy a clan was called a clan because it was seen to be functioning as an exogamous unit. The members of a group often recognised boundaries and waged war against other groups. Component units of the clans were divided into

smaller social categories such as main segments, sub clans and lineages groups (Burton 1987, Reay 1959, O'Hanlon 1989, Strathern 1971, 1972, Meggitt 1965, Langness 1972b).

However the whole system of descent typologies employed by different researchers sometimes follows a much less direct route. Reay recognised this problem and said "any ethnographer working in the Highlands is likely to discover a clan, even if he cannot satisfy himself that any of the other groups he encounters can legitimately be called tribes or lineages" (1959:44).

More recently Burton (1987) compiled detailed information on the S. Wahgi social structure, including (a) schematic diagrams of the segmentary structural divisions of the major clan groups, (b) estimates on the size of the populations and (c) tribal boundaries. Burton uses the basic anthropological vocabulary and argues that a provincial-wide (Western Highlands Province) or at least regional wide consistency in spellings of group names is needed. However, a general word of caution from Harris (1990:12) regarding kinship studies is that the meanings and social practices are "specific to the societies speaking the natural language to which the terms belong, namely European societies". Harris continues, "If social actions are culturally and historically specific, are not kinship studies of exotic cultures guilty of the cardinal anthropological sin of ethnocentricism?" (p.13).

Structure and Function. The cultures of the Wahgi Valley have been used as typical examples to highlight lack of correspondence between segmentary structures and the corresponding functions of the patrilineal descent systems. In S. Wahgi Reay's (1959) pioneering anthropological research set the precedence but her discussion of the Wahgi kinship systems employed some aspects of the African models of unilineal descent systems. Her description of the S. Wahgi descent system as 'unibond agnatic clan system' is somewhat out of date, and this partly owes to the fact that the subsequent fieldwork in the same region by various Wahgi Valley specialists have highlight the

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difficulties of applying African model. Alternative ways of discussing the patrilineal descent systems have been pursued (Strathern A. 1972, 1982).

Strathern, for example, provided a table on the size of the tribes and noted the differences in group composition.

> It can be seen from Table 2 that there is a wide variation in size of group which is exogamous. At the upper end of the Table, Ndika Maepanggel section, which contains as many as 3,407 persons still forms an exogamous unit, while at the lower end a section of the tiny Klamake tribe is not exogamous (1971:20).

In view of Reay's (1959:34) demonstration of the four phase the segmentary process (Clan type A to expand into Clan Type B and Clan Type C), Burton adds that "two main segments grow to the size of normal clans and marriage starts to occur between members of a segment" (1987:4).

Obviously, the underlying view is that clans are exogamous units because members of the group are related by common inheritance (i.e., blood ties), normally through the father's line, and as the group increases in size, the distance between close kin categories magnifies. The rules of exogamy does not apply anymore and therefore marriage partners are chosen among component units of a clan. Once the process has taken place the component units have reached a clan status. The sub clans now shift a position up the segmentary structure to become main segments and so forth.

In S. Wahgi, the rules of exagomy are flexible because a member of a group acknowledges his connections to previous sources, either by obtaining his identity through his father's line (a descent construct as described above) or by referring to the inheritance of the divination substance from the mother's side, which also provides a social framework in which the individual is thought to have 'strong roots' with his mother's agnatic group.

The marriage relations depend on whether the application of the rule is exclusively seen from a father's social group and /or the mother's social group. Indeed, it is a common practice that marriage between components units of a clan will be permitted so long as the status between the marriage partners is historically that of shadow-

brothers. Marriages are not allowed when the root and transplants relations have been fully balanced. On can choose to marry within the same Ka, Kup and Kanem, so long as the individuals concerned do not share the same divination substance.

A fundamental distinction which I have elaborated in the previous chapter concerns the combination of the mother's *maan* and the father's *min* substances. This combination is used by individuals as the basis for obtaining their social identities and for affiliating themselves to social groups. The importance of the individual's divine debt to their previous sources in the mother's social group has an important consequence on the process of recruitment of individuals for the organisation and conduct of war.

Process of recruitment. Barnes (1962), a non highlands specialist, outlined the non-African characteristic features of the highlands social structural systems and suggested that the principles of recruitment were based on cumulative patrifiliation. He advised the subsequent fieldworkers to "think twice before cataloguing the New Guinea Highlands as characterised by patrilineal descent" (1962:5, 1972b). Langness proposed that there was a discrepancy between 'norm' and 'behaviour'. He appealed to the anthropologists to concentrate fully on the highlands structures themselves (Langness 1964:162, also Strathern 1982:35, Feil 1987:131). Others added that descent ideology was a 'symbol of unity', 'a way of talk about the groups by people themselves' rather than the 'statistical' observations made by anthropologists (de Lepervanche 1968:169, Lindenbaum & Glasse 1969:324). Strathern concluded from the analysis of Melpa group structure that agnatic descent constructs do not determine inheritance and succession but are "employed as moral symbols, as assertions of stability and solidarity in the world of flux, drawing men together against the divisive pulls of their extrapatrifilial ties" (1972:215, 1982: 37 - 38).

Melpa ideas about procreation are clearly bilateral and there are similarities between the Melpa and S. Wahgi notions of procreation and continuity. Strathern considered the Melpa idioms for procreative acts through such expressions like 'grease'

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(*ndating, kopong*), 'blood' (*mema*), 'thoughts' (*noman*) and 'soul/shadow-images'
(Strathern A. 1970). He further suggested that the notion of *ngating* approximates the
anthropological analytical concept of patrilineal descent but it is not a 'jural concept', but
rather "a cultural dogma which expresses the notion of lineage continuity and the notion
that males are different from females" (1972:10 - 11). Since the *ndating* of an ancestor is
passed on continuously through his male descendants, the concept clearly encompass
more than a notion of patrifiliation; it is a notion of paternal substance shared between
agnatically related males (p. 12).

The existence of a dual social structure, partly rooted in the religious values,
implies that individuals are expected to reside with their father's agnatic group. It is
nonetheless a moral duty to honour, respect and reward the mother's agnatic group. The
emphasis is on the notion of equal inheritance of the divine life giving entity, regardless
of the fact that the contemporary functioning units are seen to be operating as patrilineal
systems.

Scheffler (1985) argues that there is little convincing evidence in the highlands
ethnography that their ideology can be translated as 'patrilineal descent'. "When all is
said and done virtually all the anthropological talk about Highlanders' dogmas of agnatic
or patrilineal descent comes down to little more than talk about groups or sets of groups
being composed of "brothers of or the sons of one father" (p. 13). Following this
position Feil (1987) argues that kinship and descent are two different things. "Kinship in
many studies of the highlands has been conflated with descent" (p. 132). The major
issues confronting contemporary anthropologists who attempt to describe the highlands
social structure are: "descent or patrifiliation; descent versus residence: norm versus
behaviour; genealogical conversion or amnesia; descent ideology or not; kinship groups
or descent groups; descent as recruitment or idiom of male solidarity" (p. 133).

Other relevant questions were raised. Were African models themselves deficient
in some way, or too idealised? Were New Guinea highlands societies somehow similar
but loosely structured by comparison' (Feil 1987:129). 'To what levels of group

structure are descent dogmas in the Highlands applied and why? (Strathern 1969: 39). If descent is not the language, what type of language should be used to describe the highlands social structure? (Scheffler 1985, c.f. Feil 1987:132). The partial answer to the last question, according to Feil, is that the "language of descent is still used in the ethnography of today, and such terms as clan, and lineage are commonplace in the descriptions of social units" (p.128).

As the above questions show, the patrilineal descent systems seem to exist as ideas, rather than providing the structural framework in which the recruitment of the individuals necessitate the loyalty towards a uni bond lineage system. A problem that remains to be examine is the nature and composition of the fighting force; i.e., whether it is strictly patrilineal or whether the choice to fight is determine by the social categories I define as the 'ascent and 'descent' kin systems. I will restrain from the inclination to cross the territorial boundaries archaeology to anthropology, but my interest in the process of group segmentation is to determine the historical group relations. In every respect the Wahgi kinship terminologies provide the basis for assessing the history of warfare.

Wahgi Kinship structure.

The Ka terminology. From now on, I will use the ordinary kinship classification a Wahgian would use if asked to identify the process of group recruitment of an individual.

> *Tumbe eh Kuma Kondika. Kondi-Wimanjs Kanem. Koken eh Dambnge Tangilka. Tangil Kumu Kanem.*
> Tumbe is a *Kuma* (Phratry), Kondi *Ka* (Clan) and Kondi Wimanjs *Kanem* (Clan-section or sub clan). Koken is a *Dambnge* (Phratry). Tangil *Ka* (Clan) and Kumu *Kanem* (Sub clan) (see Burton 1987: 29, 48).

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To avoid the confusion between existing anthropological terminologies of group structures and the ones I will use, I list the two together (below).

Wahgi idioms	Anthropological terms
Ka	Tribe/Clan
Kup	Main sections/
Kanem (1)	Subclans
Kanem (2)	Sub sub clans/ Lineages

Other Wahgi idioms often used as substitutes from the Kanem (1) segment downwards are Gapam (grand children), Ngaakim (children), and Dam (father). I shall adopt the S. Wahgi perspective and attempt to provide a clear analytical procedure for examining the various meanings of the above idioms, based on some of the underlying logic which define the process of segmentation. For example, in anthropological discussions the Konombka are considered to be a tribe. This assessment is based on the fact that by contemporary standards it is the largest group in S. Wahgi, and that marriages in the lower segments have been organised (Burton 1987:6). Likewise, Tangilka and Kondika are seen as clans because they are exogamous units. In my classification, I consider Konombka as a Ka unit which has equal status to all other Ka groups regardless of the contemporary functions. All groups with the idioms Kup and Kanem (1&2) are classified according to the historical position they maintain in the Ka segmentary structure.

Descent system. Essentially, the Ka structure records two segmentary processes; one in an ascending order and the other in descending order. One is represented by the *kopam* social category and the other by the *kambin* unit (see Chapter 5). The first procedure involves the separation of the proper genealogical names from the corresponding botanical idioms (see later on that). The functions of the genealogies were discussed in the previous chapters. The important point is that the terms Kuma, Kondi

and Wimanjs; Dambnge, Tangil, Kumu and Kondil are often taken from a patrilineal descent ideology and therefore the appearance of the names defines the structural divisions in a descending order. That is "the names of the ancestors organise the group in successive level downwards and are said to have been founded by eponymous sons of father at the levels above" (O'Hanlon 1989:23-24).

As regards the process of recruitment in S. Wahgi individuals from different groups (such as Kuma, Dambnge and Nene) live in the same compound and participate in collective social activities. In a single parish they express themselves as people of the same men's house or of the same place. However, change of residence and locality throughout an individual's life time does not influence the alteration of group names that signify the initial founding population. The names are taken in the descending order from their father's line and they may not be altered. Therefore, a Kuma who lives among the Dambnge will always remain a Kuma despite his contemporary allegiance to the Dambnge, where he may regard himself as a Tapia dam (residence and locality), but not a Dambnge (descent constructs). If he is killed in war, his body will be returned to the Kuma for burial and subsequent the Dambnge will pay compensation.

Ascent system. The second way of assessing diachronic processes of the social structures is to examine the botanical idioms. The plant metaphor is a useful model for discussing the S. Wahgi social structure. The parallel between the cultural expressions used to label the various stages of plant growth and the social process of group reproduction, provides the much needed model which could explain the problems associated with the anthropological analysis of the highlands descent constructs reviewed earlier.

My interest in the 'botanical mode' of kinship relations is due to the fact that the Wahgi people's own views on segmentary divisions involve idioms like 'root', 'base' and 'transplants' which are seen as part of natural life cycles. These underlying structures are extended to group reproduction, so that the comparable terms Ka (base), Kup

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(shoots) and Kanem (vines) are paired with the genealogical names in the kinship structure.

At the broadest level, the people use expressions associated with field divisions, ditches, drainages and squares within a field system to describe the various sizes of the contemporary groups. Within this structure, they view the divisions of the group in a manner similar to plants associated with the checker board gardening techniques, following the biological growth from the initial cuttings into a mature plants.

I suggest that the plant that might have served as the botanical metaphor for the Ka structure is the sweet potato (*Ipomea batatas*). It is quite possible that the word *Angka*, used in S. Wahgi to describe mature sweet potato tubers [and also the words *Kaia* (in Chimbu language), *Oka* (Melpa) *Angkai* (E. Kambia) and *Kep* (N. Wahgi)], can be separated, just like proper genealogical names can be separated from the suffix idioms of the groups. In this way, the metaphor could be an archaic word for the base or mature tubers of the sweet potato crop, which is associated with checker board (*doog*) agricultural practices.

The comparative evidence from Melpa and the Wahgi is used to specify the distinction described by O'Hanlon and Frankland (1986:185) between 'physiological connection' (blood ties) and 'botanical mode' (a stock and cuttings taken from it). Strathern's summary of Strauss' hierarchical classification of the idioms associated with the group structure is a clear example of the comprehensive list of Melpa descriptive idioms which distinguish 'descent' from the 'ascent idioms'; the transactions of the planting substances.

> The tribes and its major sections are distinguished as *mbo tenda* (one stock) and *mbo kats* (separate sub-stocks). The clan level is *pana-ru* (field division), and succeeding levels below it are *anda-noimp* (grandfather penis), *rapa* (men's house), *anda-kangem* (grandfather and sons), *onginodl* (brother) and *tepa-kangemadl* (father and his sons) (1972:43).

The idioms which demonstrate the botanical mode are constructed in the ascending order. They are at the upper part of the structural levels and the Melpa words include 'one stock' *(mbo tenda)*, 'one line' *(teklaep tenda)*, 'root people' *(wamb pulk)*

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and 'garden ditches' *(pana rui)*. Strathern also notes, that "group segment names end in *-mbo,* a suffix meaning stock or shoot of something planted" (1972:42). This ideology relates to planting of maternal substances and states that the name of "the female ancestress is taken and *-mbo* added to it to form a new segment in a tribe". Also the "Maring conceive the living community as the visible trunk and branches of a tree whose roots and base run deep into the land. People call clan *ya kai,* meaning men's *root/base"* (Lipuma 1988:20, italics mine).

The Ka segmentary Structure.

Ka and Kup levels. The idiom Ka does not literally mean base, but I take it as a metaphor which symbolises the source or base of a plant because of the association with field systems and garden ditches. Logically, the base of the plant is buried in the soil, spreads its roots, emerges into a stem and branches out into vines. Unless the plant is destroyed before it is capable of generating a new cycle, we have a uniform and gradual change from one stage to another: roots, base, stems, branches and vines. When the plants reach maturity, the seeds, cuttings and stock ensure that their is a continuity; a new cycle emerges.

Immediately above the Ka is the term Kup which in S. Wahgi has limited application. It is normally used to describe the young tubers of sweet potatoes but I also heard in the Konombka battlefield, after the death of a warrior of about 25 years old, the expression *na yi kup tonem* (he killed my young man). Like the term *ambik moss, yi kup* is used to refer to young courting men between 18 to 25 years. In its structural position Kup maintains an immediate level between the sub-surface environment and the visible social practices of the Kanem structure.

An apparent distinction between past and present relations is reflected in the hierarchical ordering of the idioms in the Ka sequence. The contemporary groups begun a as single base (Ka) within a field division (*yi doogum*) and sprouted to the surface as

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young plants. Imagine that each Ka represents a base of a plant that is planted within a square or grid pattern in a garden system (e.g. sweet potato; see Figure 6.1). Like the plants that have to be uprooted to see the base, the Ka and Kup structures are symbols of sub surface environment and signify social functions which were active in the past. In the contemporary situations, the Ka and Kup structures function as solidarity units, during periodic and cyclical events such as warfare, ceremonial exchange, compensation payments and pig kill ceremonies that may require collective efforts and group corporation above the Kanem structural sequence.

Kanem (1). The Kanem groups are the contemporary military, religious, territorial and exogamous units. They own a number of communal properties, perform together in ceremonies, conduct their own rituals, devise battle strategies and recruit a fighting force. The designs and painting of the shields are done at this level. The Kanem groups own battlefields and may refuse to 'open' the path for other Kanem of Ka to fight against their enemies. It is usually the case that two of the Kanem of the opposite fighting partners may classify themselves as roots and transplants. In these circumstances they cannot fight against each other. But they can fight against other Kanem factions with whom they do not inherit common *minmaan* substance. Suspicion of betrayal, sorcery and administration of poison are more apparent between members of Kanem groups.

They may also be engaged in stick fights. Fighting with arrows and shields are deplored but sometimes it can occur if the groups concerned did not shared the divination substance. Some of the communal properties include open space for public gathering and pig kill ceremony, battlefields and burial sites. During announced intervals that all Kanem groups will combine as single entity (Ka) and present themselves to an audience.

Kanem (2). The second order Kanem is the minimal structural level in which most of the individuals can trace their genealogy with reasonable accuracy to the third generation (e.g. Kondil Kanem). The members consist usually of blood relatives but

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individuals can come from sisters married into other *Ka* groups. Some of the common activities they share and participate in are (a) *kongan angiep*, (collective or communal work), (b) *amp kolme* (women's payments), (c) *kos kumap* (dispute settlements), (d) *yi gar* (menshouse) and (e) representation by a *kangiep yi* (orator). The plant is a beginning but the vines and leaves do not spread for ever; the natural life cycle comes to an end. In a similar manner, the application of the idioms to the group come to end at the *Kanem* level.

Within the limitation of the biological rules of plant growth, there are a number of rules that determine how the Ka sequence develops. I shall outline some of these rules and discuss the diachronic process of S. Wahgi group structure in reference to the history of warfare.

The ideal Ka segmentation structure.

The model. The analogy between the growth of a plant and the social reproduction process shows some of the S. Wahgi attitudes towards growth, group solidarity, segmentation and continuity. It has deeper connections with fertility, procreation and inheritances of divination substances. In the ideal Ka chronology all the groups divide progressively and predictably, and they operate within constant and fixed positions along the structural levels. If conditions are stable, each Ka group should begin with a root/base (Ka), progress into shoot/stock (Kup) and then spread into vines (Kanem). The following rules can be applied to the ideal segmentary model.

The ideal *Ka* structure (the father of the land).

1.1. Ka functions at its appropriate level historically as a based group (the founding population narrated in the origin stories become political units; the transformation of a *kopam kambin* unit into a *yi doogum* unit).

1.2. Kup functions at its appropriate level. The *kopam kambin* unit of the Ka groups reach a *yi doogum* status and split as shoots of the previous base.

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1.3. Kanem (1) functions at its appropriate level. The *kopam kambin* units in the Kup segments increase in size to a *yi doogum* and split into component vines of the previous sources.

1.4. Kanem functions at its appropriate level as the secondary vines of the previous branching of the 'vine' (Kanem 1) from the shoot (Kup) of a base (Ka)

KANEM (2)   KANEM   KANEM   KANEM   KANEM   KANEM   KANEM   KANEM

KANEM (1)   KANEM   KANEM   KANEM

           KUP   KUP

                    KA
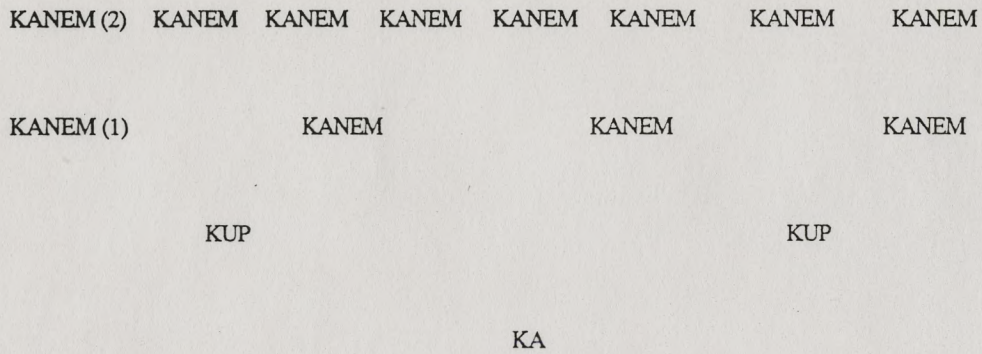
Figure 6.1. The ideal ascent segmentation system in S. Wahgi.

Ka structure model
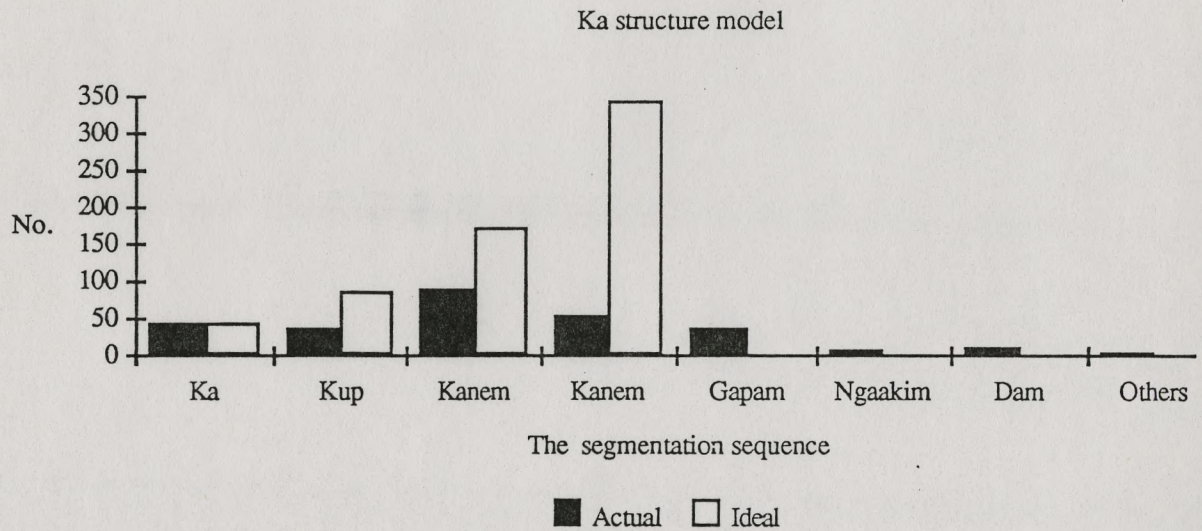
Figure 6.2. A comparison of the ideal and with actual distributions of the number of kinship structure among the S. Wahgi (Source Burton 1987).

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The idioms in Figure 6.2. are arranged in a chronological sequence; Ka is older than Kup and Kup is older than the Kanem segments. The distribution of the idioms from the S. Wahgi group structures shows that there are 48 *yi doogum* groups with the suffix word Ka appended to the proper genealogical names. All of them represent the 'base' and if each one of the Ka units followed the ideal segmentary division, an ideal binary relationship would correspond to the following formula: 1 Ka = 2 Kup; 2 Kup = 4 Kanem (1); and 4 Kanem (1) = 8 Kanem (2).

However, the comparison between the ideal model and the actual distribution of the idioms shows that less than 50% (n=19) of the *Ka* groups are operating at their appropriate structural levels. I shall return to this problem after a discussion on the population structure.

Population size.

Yi doogum unit. Like many other South Wahgi expressions, the word *doog* has many meanings. Some of the common ones are eye, being straight and ditches. Reay translated the word *doog* as eye

> and the phrase *yi doogum* which signifies a group of men claiming common agnatic descent means literally a man's eye. The group to which a man belongs is, as it were, the organ with which he views society, the eye focuses his interest and behaviour (1959:41).

Reay's interpretation follows one set of cultural logic and links social relations to the religious values of Wahgi culture. My own interpretation is different, since I am interested in the idea of group size and how it influences segmentary divisions. The 'checker board' sweet potato gardens are often described as *angka doog* (sweet potato ditches). The cognate meanings are *ngok doog* (water channels) and *esik doog* (finer field divisions along the Kanem levels). *Esik* is a plant that grows beside the streams and once the streams overflow the banks, the water runs through the *esik* plant, in which the plant acts as filter and diverts the water into rows of channel. A comparable expression among the Melpa people is 'garden division'. According to Strathern

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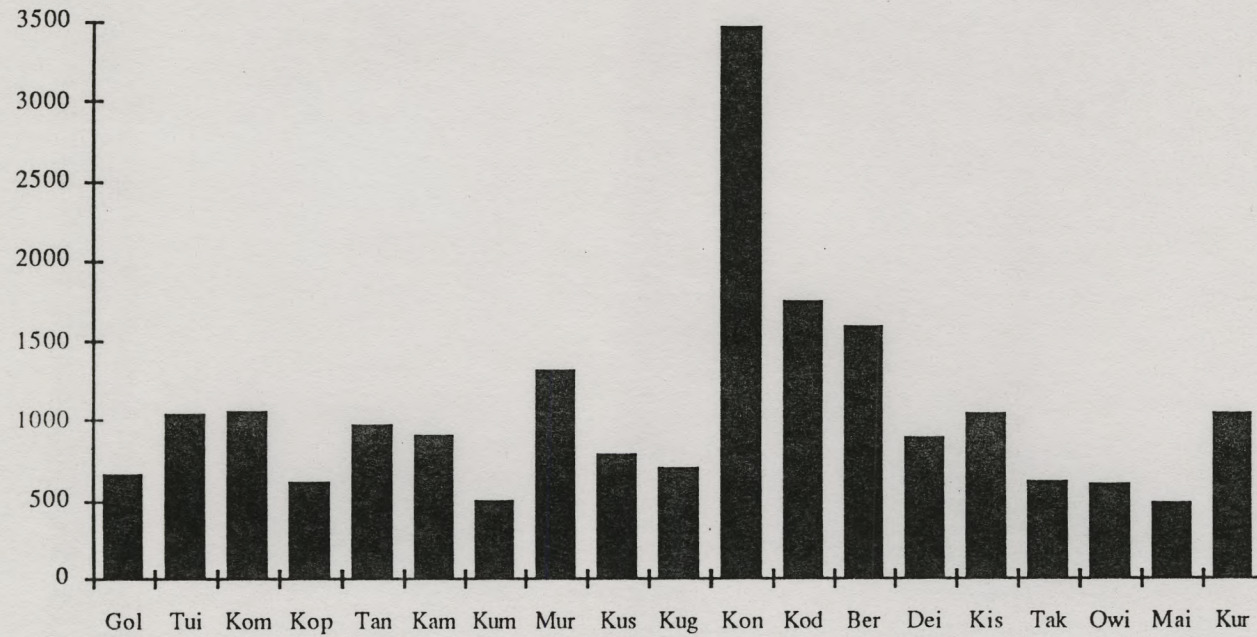
Figure 6.3 The distribution of the Ka Population in the S. Wahgi Valley (Source Burton 1987). The abbreviated group names are as follows; **Gol**ikup, **Tui**mekup, **Kom**onka, **Kop**anka, **Tan**gilka, **Kam**blika, **Kum**ngo, **Mur**uka, **Kus**ilka, **Kug**ika, **Kon**ombka, **Kon**dika, **Ber**epka, **Dei**manka, **Kis**u, **Tak**a, **Owi**ka, **Mai**amka, and **Kur**upka. The group names are listed according to the geographic locations and ownership of territories; from the eastern Chimbu region to the western language boundary between the S. Wahgi and Ek Nii groups.

There is the image of the whole clan as a garden division (pana ru) and the idea that persons who change membership plant themselves or are planted by big-men sponsors in a new garden divisions. The emphasis here is on the territorial nature of the land-holding and on a symbolisation of residence which states that joining a group implies making roots with it, as a plant roots itself in a garden (1972:222).

He pointed out that sister's sons have particularly strong roots with the mother's clan. The important idea emerging from both Wahgi and Melpa kin categories is the emphasis on the planting substance which, in another way, refers to the reproductive capacities of women. Although, Strathern stressed that the expressions relating to garden divisions and field systems symbolise the individual connections with the territory, I suggest a slightly different pattern whereby the botanical mode of kinship expressions defines a 'matrilineal ascent' system.

Generally the expression 'men within a square' (*yi doogum*) implies a segmentary group division, an historical process which is based on notion of balance, static and gradual changes. The composition of groups at each structural level is thought of as squares in a field system, just like the checker board field systems in sweet potato gardens. Accordingly, high level group names like Dambnge, Kuma and Nene may have operated as squares but now seen as ancient field systems. As population increased these origin groups divided into Ka squares. Each Ka unit operated as a square unit in relation to other Ka squares and once the population within each of the units reached beyond the capacity of the size of a square, the expanding groups divided into Kup unit. The Kup and Kanem segments followed the above process.

As well, the S. Wahgi people think of their own groups as a square unit, equal in size to all others within the field system. This is regardless of the fact that an absolute figure on the upper size limits of the square is a matter of speculation. Group may vary in size but the individuals within a group do not see the waxing and waning of group size as a process on its own, rather the changes are measured relatively; one square is considered in relation to others within the same field systems. In this context, I translate the word *doog* as a unit of measurement which represents one square and each of the four

structures are seen as field systems with their own square units. It is only a relative measurement because when one *yi doogum* expands and goes beyond the capacity of a square, it measures itself against the other squares within the field system.

According to the *yi doogum* principle, the size of the group is thought in terms of the number of men that can possibly fit within a square. Each square is identical in size and therefore this model should enable us to suggest that there exists a linear correlation between the segmentary divisions and the population distribution. The ideology of *yi doogum* in can be assessed against the available figures population distributions. If a Ka with an average population of 1500 persons is divided into two Kup segments the population distribution is 750 person per Kup unit. If the Kup segments divide into Kanem units there will be approximately 300 - 500 persons per Kanem segment. The average population of the Kanem (2) sequence is 150 - 300 persons. Three examples are included here.

The distribution of Kanem population. The Kuma Konombka is the largest Ka group in S. Wahgi. If its total population (4100) is divided by the 10 Kanem units, the average distribution per Kanem is 400 persons and in Kanem (2) sequence there would be 150 persons per unit (Burton 1987). In reality, however, the distribution of the Kanem population is uneven (see later for details).

Distribution of Konombka Kanem population
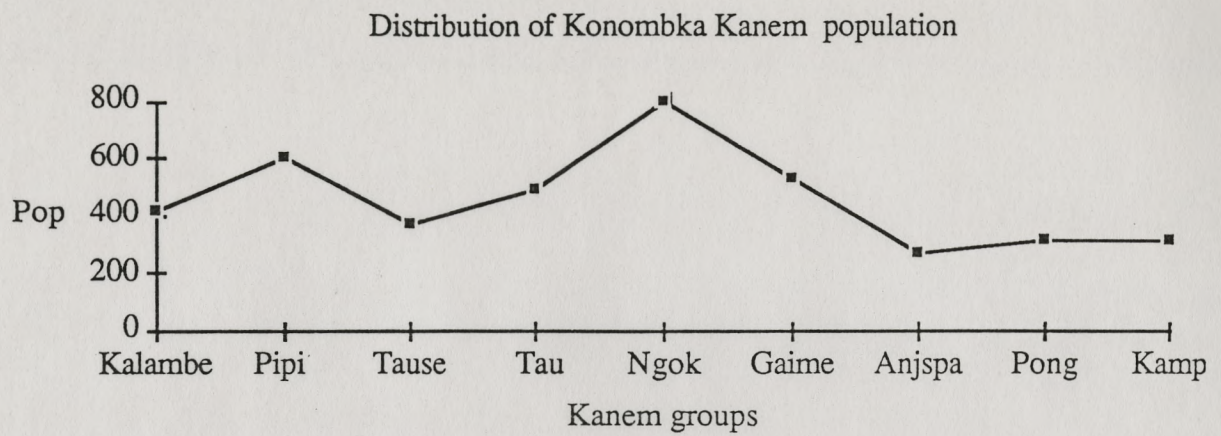
Figure 6.4. The population distribution of the Kanem (1) groups of Konombka (Source, Burton 1987).

Tangilka Kanem population distribution
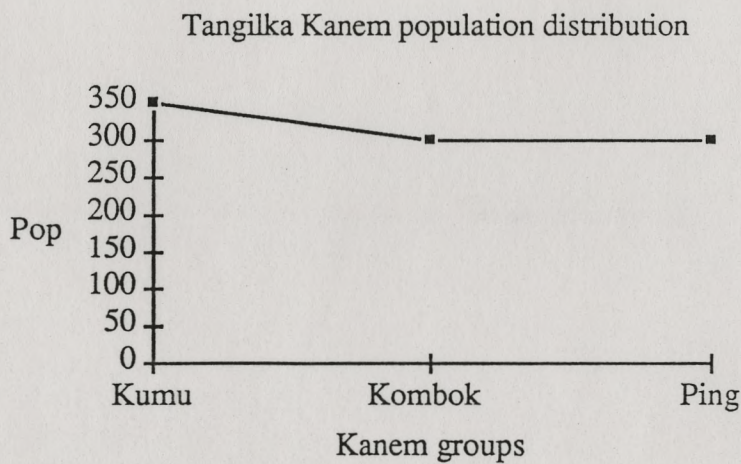
Figure 6.5. Population distribution of the Kanem (1) units of Tangilka (Source, Burton 1987).

As for the Tangilka, Burton (1987) estimated their population to be around 1100 persons (the following graph is based on his 1979 figures). There are 2 Kanem (1) and 1 Ka units functioning at the Kanem (1) level and 10 Kanem (2) units. The distribution of

the population is approximately 300 persons per Kanem (1) unit and 150 persons per Kanem (2) unit.

Among the Berepka the population is 1500 persons. There are 11 Ka units, and according to Burton's (1987:26) segmentary structure, 2 Kanem units (Andpang and Kuma) are functioning at the Kup level (main segment), 6 Kanem (1) units and 15 Kanem (2). A Dam segment is also listed which appears below the Kanem (2) level.

Population distribution of Berepka Kanem
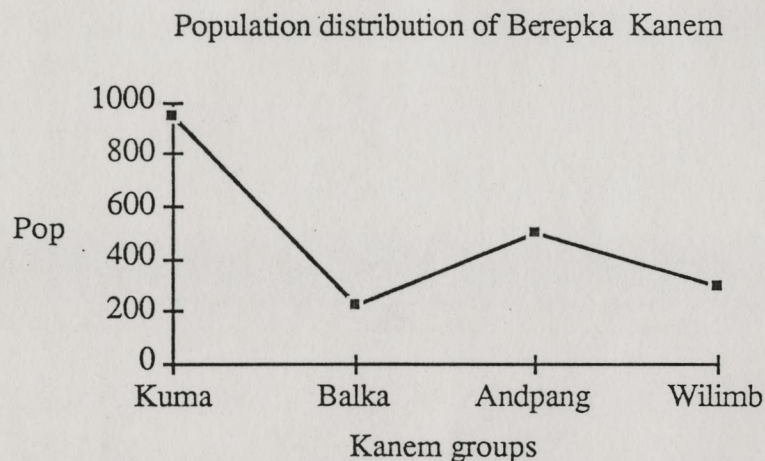
Figure 6.6. Population distribution of the Berepka (Source, Burton 1987).

With some exceptions, the average population size of each structural units is as follows: Ka = 1500 - 2000 persons, Kup = 750- 1000 persons, Kanem (1) 300 - 500 persons, Kanem (2) 150 - 300 persons and *kopam kambin* = 15 - 20 persons. On the whole, the relationship between population size and the number of sub-groups is predictable, so that the bigger the size of Ka groups the greater the number of Kanem segments.

The fathers of the land *(maagk dam)*

The Kamblika, Muruka, Kugika, Owika, Maiamka and Kurupka segmentary structures almost follow the rules outlined in the ideal model (Rules 1.1 - 1.4). The segmentary structures are recorded by Burton (1987:19, 34, 35, 38, 41).

The Kurupka and Maiamka own territory at the western boundary between S. Wahgi and the Ek Nii language groups, and oral historical accounts of warfare indicates that these groups formerly inhabited part of the Minj River Valley. They were chased westward to the vicinity of the Kudjip region during the *moss* war (1700 AD) between the Kum and Kumai groups. Following this defeat, the Kurupka and Maiamka were not placed in a position in which they reached the migrant status. They are regarded as *maagk dam* groups. This expression (linked to the origin stories) is used when a group claims that it is the father of the land. It is a war statement which suggest that it has not been not driven out of its territory including the initial settlement sites of the ancestral parents of the Ka groups. I asses the Konombka group structure in this section and discuss the some aspects of war between Konombka and Kondika elsewhere.

The Kuma Konombka. The Konombka regard themselves as the *maagk dam* people. However, its huge population is twice the size of the average Ka groups. Reay recorded the marriage between the segment units as early as 1950. Also Burton noted, from administrative reports, that marriages between Gaime Kanem and Ngok Kanem took place in the 1970s. The marriages that I recorded among the Konombka Kanem groups occurred between groups that are not 'brothers' (i.e. descendants of Akmaagk - see origin story in appendix I). Any component group in the Kup and Kanem level which does not function in accordance to Rule 1.1 to Rule 1.4 is likely to become a marriage partner. This implies also that group composition along the Kanem structure consists of

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kopam kambin units rather than *yi doogum* group which share the same divination substance.

The groups that do no share the *minmaan* substance among the Konombka are Kalambe Kup (population 415), Pong Kup (320), Milngan Kanem (400) and Minjnge (200, scattered throughout the Konombka Kanem units). Thus if the population of the groups of independent origins are subtracted from the total population of Konombka, the size of Konombka is just above average size of the Ka population. I suggest that these groups are of independent origin because they have their own origin stories (i.e., Minjnge and Singa origin stories) and because the idiom Kup appear to be functioning below its appropriate structural level (Pong Kup and Kalambe Kup). There are then at least a 1,000 individuals who are not 'true' Kuma

I shall discuss later the military status of these independent groups which are now incorporated into the Konombka.

The Konombka structure reflects a problem. When a structural idiom is placed within its appropriate place but is said to represent a migrant group, one has to rely on other sources. These include the population size and the narrated history of that group. The Ka structure is a useful model for assessing the history of a group when the internal divisions are not ordered according to the plant model. The distribution of the Konombka Kanem population singles out the Ngok Kanem as the one which does not fit into the yi doogum principle.

However, divisions below the Ngok Kanem level corresponds to the population size. The Milngan Kanem segment of Ngok has more population than the Oi Kanem. This results from the structural changes in which Kanem (2) structure had reached the upper threshold of Ka divisions, and cannot divide into further Kanem units. A new segmentation process emerges. The correspondence between the size of the Ngok Kanem population and the need for the divisions of social units within the square principle is a clear example, in which the botanical kinship changes to a unilineal descent ideology (see figure below).

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KA	KUP	KANEM (1)	KANEM (2)	GAPAM
		Pipi Kanem (435)	Woklem Kanem	Kunangel*Gapam*+
				Aku *Gapam* +
			Kumnge Kanem	
		Tause Kanem (435)		
			Kondil Kanem	
	KUSE KUP	Kalambe *Kup** (415)	Nganimp Kanem	
			Dambe Kanem	
		Tau Kanem (490)	Guil Kanem	
KONOMBKA				Sipnge *Gapam*+
				Kole *Gapam* +
			Milngan Kanem	Tap *Gapam* +
		Ngok Kanem (800)		Oken *Gapam* +
				Gengre *Gapam* +
			Ol Kanem	
		Gaime Kanem (530)	Ap Kanem	
			Kanjs Kanem	
	TUMBE KUP			
			Kangil *Gapam* +	
		Anjspa Kanem (270)	Ngomnim *Dam* +	
		Pong *Kup* (320)*		
		Kamp Kanem (320)		

Figure 6.7. The segmentary structure of the Konombka. (Source Burton 1987) (*) = structural anomaly, (+) Descent idioms.

A further example is the relationship between the Kondika and Konombka. It is worth mentioning it here because the ethnography of Konombka and Kondika war, discussed in Chapter 8, is linked to Kanem group relations and the distribution of the Kanem fighting forces among the Konombka and Kondika battlefields. Among the Kondika, Burton (1987) quoting from Mangi, suggested that marriage were possible between the component units because of political reasons. "Why should we seek partners beyond our borders? This only weaken us politically" (p.4). However, my interviews with the Konombka, before and during their war with the Kondika seem to indicate that they are brother Ka groups and marriages between the two groups were not permitted until very recently.

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Certainly a marriages among Kanem groups which are by virtue true Kondika will be considered incestuous and, perhaps the implication of the above statement is that the Kondika can marry the daughters of the migrants such as Dambnge Ta Kup and Tungka as well as the recent Chimbu migrants now part of Kondika. The component units of Kondika and Konombka that maintain the status of shadow brothers exchange women. I shall discuss some aspects of the Konombka and Kondika war later (Chapter 8).

Structural anomalies.

When the Ka structural rules are not followed, this serves as an indication that the 'anomalous' groups have a complex history of warfare, migration and marriage transactions. A striking example of structural anomaly is the Tangilka descent system. The Tangilka structure is complicated because (a) the entire Kup structure is missing and the branching of the Kanem levels do not conform to the *doog* division proposed earlier, and (b) according to the Ka rules, the Pingka group should function at the Ka level whereas in reality it is functionally equivalent to the Kumu and Kombok Kanem. Within the Tangilka, the genealogical history of the Kondil Kanem can be reconstructed, in combination with the names of the founding parents as recalled and narrated in the origin stories (Chapter 3 & 4).

It becomes possible, on this basis, to trace the antiquity of current groups back to the time of the formation of the Kanem segments, and to ask such specific questions as: Why are the Ka units missing (e.g., Ta Kup, Tuimekup, Kumnge) or functioning below their appropriate levels? Why, in some instances, the entire Kup is missing? Why are the Kanem sequences functioning at the Kup levels or replaced by descent idioms? (see Reay 1959:29-30, Burton 1987:23, 26, O'Hanlon 1989:25, Strathern 1971:21, Brookfield & Brown 963:84, Lipuma 1988).

These questions can be answered in a number of ways, but perhaps it is most appropriate to translate them into the Wahgi plant metaphor. Why is the root or base of a plant uprooted and exposed on to the surface? Should it not function at the sub surface environment? Why is it that the base and the branches/vines of the plants grow without a stem or a stock? Is it not illogical that a shoot of a plant tends to grow without a base or the root of the plant imitate the functions of the branch and vines? A plant without roots and stems will naturally die. Certainly, vines can be taken as cuttings for planting and the transplants will create their own base, but such process requires both stability and time.

The power of this plant metaphor and its relevance to our concerns becomes evident. The anomalous position of idioms in the Ka structure confirms and supports the narrated account of warfare, whereby a group is regarded as 'father of the land', 'migrant', and /or one which does not function as a sovereign Ka entity any longer. As we have seen, the Konombka group structure is an example of a group that has rarely experienced historical war defeats. They are thus classified as the fathers of the land *(maagk dam)*. The Tangilka group structure, on the other hand, is an example of a group that has experienced war defeats and that has sought refuge among their allies before returning, from time to time, back to their root place. As it will be seen there is a relationship between the origin stories and the divisons of the group structures, and in the next part I shall return to the origin stories of the Dambnge Tangilka history and demonstrate why the group structure does not correspond to the ascent kinship system.

The condemned people. The Tangilka are associated with two culturally undesirable or negative terms. First, they are called *wandilim akamp*. This term refers to migrant groups that were assimilated into the second (Kanem 1) and third (Kanem 2) order structural social grouping of their hosts *(wan*: go about walk: *wandil*; feeling sorry, sympathy for someone who faces misfortune: *akamp*; people). Next, an even more powerful condemnation, the Tangilka are known as *opo geru kulba ngonjip akamp (opo geru*; fight taboo substances: *ngonjip*: they gave: *akamp;* people). This expression

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summarises two important social practices. The term *geru* is associated with the rules of separation maintained during major pig kill religious ceremonies. There are a number of people who are categorised as 'taboo people' and are not allowed to mix with the potential opposite fight partners. Like the general rules of abstention which prohibited certain categories of people from mixing with the public, this rule is imposed against a group which causes more trouble among the neighbouring groups. Such sanctions include (a) ban on all the food which was produced and distributed to other groups in the taboo region, (b) ban on exchange of pork meat during the *Kong gar* religious festivities, and (c) restrictions on marriages between *geru kulba* and other groups.

The term *opo kulba* (toy arrow) associates with warfare. *Kulba* refers to blunt arrows made by young boys during the conduct of mock fights (see introduction). The projectiles are light-weight and when fired at something, they fly aimlessly and often miss the targets. If they hit the target, they do not harm anyone. Giving the *opo kulba* to a group is like firing an arrow into open space. It means to disappear and vanish completely. Thus the 'fathers of the land' *(maagk dam)* as well as the host groups collectively imposed social sanctions, incited various forms of intimidation tactics and used physical force if necessary to eliminate the Tangilka completely. The objective was to force the taboo people to maintain refugee status and eventually cease to function as sovereign units. This curse on Dambnge Tangilka to die, rot or decay is highlighted in the second origin story.

In order to further assess how the idioms in the Ka structure contains aspects of the history of warfare of each Ka group in S. Wahgi, I shall formulate a number of secondary rules which will show how the idioms can break the rules of botanical growth and at the same time reflect the consequence of historic wars. (The numbering system below follows the one used to define the rules of the ideal segmentary division, so that rule 1.1 relates to 2.1, etc).

The migrants and non-Ka groups (wandilim).

2.1. Ka functions below its appropriate level; either at Kup or Kanem level.

2.2. Kup functions either above or below its appropriate level; along the Ka or Kanem evel.

2.3. Kup structure is missing or replaced by descent idioms.

2.4. Kanem (1) functions side by side with submerged Ka and Kup structure.

2.5. Kanem (1) structurally moves above its level and functions at the Kup structure.

2.6. Kanem (2) level replaced by descent idioms such as Ngaakim, Gapam, Dam. The incorporation of descent idioms occur in two ways:

2.6.1. Merging - Two Kanem (2) segment are combined and replaced with descent erminologies;

2.6.2. Splitting - Two Kanem (2) exhausted the upper limits of the plant metaphor and descent idioms are added to component units.

GAPAM   GAPAM   GAPAM   GAPAM

KANEM   KANEM   KANEM   KANEM   KANEM   KANEM   KANEM

GAPAM   NGAAKIM   KA

KUP   KUP

(KA ?)

Figure 6.8. The segmentary division of the Ka structure the migrants and politically 'dead' groups.

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	KA	KUP	KANEM	KANEM	GAPAM	NGAAKIM	DAM	OTHR	Total
Golikup		1	2		7				10
Tuimekup	1	4	6		3	3			16
Komonka	1	2	1	5	5				15
Kopanka	3	3	4			1			11
Tangilka	2		2	10	1				15
Kamblika	1	3	4	2	4				6
Kumnge		3	3						11
Muruka	1	2	6		2				11
Kusilka	1	3	7	8					14
Kugika	1	3	7				3		30
Konombka	1	3	7	10	8		1		15
Kondika	2	1	4	8					27
Berepka	10		6	10			1		7
Deimanka	6		1						11
Kisu	7		4					3	10
Nene Taka	3		6						3
Owika	1	2							7
Maiamka	1	2	4						12
Kurupka	1	3	8						
Total	43	36	87	53	35	4	9	2	

Figure 6.9. The distribution of Ka structure idioms among the S. Wahgi groups (Burton 1987).

The war migrants (*wandilim akamp*).

Groups like Tangilka, Berepka, Kondika and Taka do not have the Kup structures (Rule 2.2). The Kanem levels move above their appropriate level and function as Kup units. The group structures which contain structural anomalies suggest historical population movements. An important factor in population dispersal is warfare. Groups which have achieved *wandilim* status a number of times include Komonka, Kopanka, Kambilka, Kusilka, Apka, Aklimka, Taka, Kondika, Berepka. Pekuka, Deimanka and Owika. The implications are that (a) a group achieves a migrant status the populations is often dispersed below the Kanem level or the family unit described as *kopam kambin* (the minimal reproductive unit), (b) when the migrants return to their homeland, the

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original social political unit whether at the Ka, Kup or Kanem level has undergone dynamic structural modification and (c) there will be structural anomalies.

It is necessarily to point out that the preparation, mobilisation and conduct of contemporary war is carried out by members of the Kanem. When a clan or Ka has been chased out of its domestic environment (*Omb kone*), the wartime movement of the population is akin to the paths that are selected for a bride to move to her husband's home (cf. chapter 5). However the host Ka group cannot accept a wholesale migration because it will not have enough resources to support a population beyond the Kanem (2) *yi doogum* size (150-300 persons). Thus defining the host and migrant relations the *kopam kambin* level enables the host group to ensure that their political unity is not threatened by the migrants. At the same time, the limited access to domestic resources and cultivation land that is given to the migrants imposes indirect pressure on them to return to their own land.

Given time, some of the migrant *kopam kambin* units reach *yi doog* levels. But being accepted by the host groups does not mean that they loose their own identity. Rather, a subtle from of concealment of their history is undertaken to retain the original plant idioms, so that these idioms will be able to stand out and serve as historical rationale to their previous sovereign status. Thus when structural anomalies occur and/or when the social structure defy the rules of segmentation, there would be a lack of correspondence between the structures and functions of various group levels, regardless of their contemporary sovereign identity as Ka units.

That is, a Ka may have divided into component Kup units and the Kup segments divided into Kanem segments, but instability brought about by warfare disperses population over a large area. Often the migrant Kanem units follow existing kin networks such as the return of the sister's children to their mother's brothers group and in this case the sister's children are granted the status of the 'true owners of the land' (Strathern 1971). If they take up permanent residence, it will obviously affect the structural relations of their former Ka group. A migrant Ka group which regroups itself in its former

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territory will not retain the original segmentary division based on Ka, Kup and Kanem sequence.

One reason for this change is that the host and migrant relations are defined below the Kanem levels (normally between the *kopam kambin* units). This implies that the host groups has militarily weakened the sovereignty of the defeated migrant group. When the migrant group decides to return to its former territory, there will not be a wholesale migration, but rather those individuals who have connections with the former enemies with act as connecting persons. Therefore a defeated group will return as effective *yi doogum* units, able to raise a fighting force (*opo kupan*). I shall return in the final chapter to the distinction between the fighting force and the sovereign units.

The politically inactive groups (gonjip yi doogum). It was noted that more than 50% of the Ka groups functioned below their appropriate level (Rule 2.1). The distribution of these units are restricted to the Kopanka, Kusilka, Berepka, Deimanka and Kisu. I noted in the origin stories and the genealogy of the Tangilka that the Kopanka were dispersed eastwards after their *moss* war with the Ta Kup. One of the consequence of the migrant status is that the population decline dramatically, and other Ka groups of the Dambnge were incorporated under the Kopanka. These include, Pilngapka, Kakpakemka and Oprika. The Dambnge Tungka migrated westward and were incorporated into the Kondika.

Berepka. An extreme example of the complicated history of a Ka group is that of the Berepka. There is a lack of correspondence between the segmentary structure and the population distribution. It is often considered that Berepka is a group of independent origin that migrated from the North Wahgi area. While I did not collect information on the history of the Berepka group, some aspects of its history can be interpreted from the structural arrangements of the Ka idioms.

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As previously mentioned, Berepka has the largest numbers of Ka groups (11) in S. Wahgi. The structural divisions are almost similar to the Konombka but the size of the population is different. Berepka is considered as a clan but historically is consist of a number of independent Ka groups which have reached migrant status and became incorporated into the Berepka. Unlike the Tangilka, many of them ceased to function or retain their sovereign status. There were not enough men to define a *yi doogum* unit and/or to recruit a fighting force from it, and they were labelled as those that 'died', 'rotted' and 'decayed' (*gok burbe arbe enjip*).

Burton's (1987:24) diagram of the Berepka structure shows that the independent Ka groups are Topeka, Kuka, Koika, Mangka, Aklimka, Balka, Karuka, Tereka, Kalka, Wilimbka and the Berepka. If each of the Ka unit was functioning at the Ka level, the normal size of the Berep groups would be approximately 11, 000 persons. Berepka is a clan but certainly it will not be an exogamous unit. Each Ka is capable of becoming a marriage partner of another Ka within the Kanem level, as long as the reduced Ka units do not inherit the same *minmaan*.

Some groups like the Topeka, Kuka, Kambka Koika and Mangka were formally autonomous groups. This can be gathered because they are constantly referred to in the origin stories of the Kuma people, the former inhabitants of the Minj grassland. Minjnge was also a former 'father of the land' of the Minj region and the origin stories linked the transplant and root connections to the Wilimbka. Although my informants claimed that the groups have died out, this may imply only that they ceased to function as political units.

Although the population figures of the Kanem (2) are not available, I have attempted to show what seems to be a lack of correspondence between the structure and function can be explained by assessing the structural positions of the Ka idioms. In short, the Berepka group structure shows that they became migrants, but the important issue in this case is that a number of other major groups which had been permanently

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dispersed and unable to retain their political autonomy came to be incorporated into the Berepka.

The important issue is that all of the 43 Ka groups have their unique history of warfare and the exercise in here is to show the Ka structure is a model which helped me to assess the historical group relations and at the same time cross-check on the reliability of the history of warfare stretching back to the time of the origin stories.

Conclusion - the antiquity of the Ka structure.

The issues of interest in the Ka models are (a) the antiquity of the Ka structure, (b) the interval of time between the various structural levels and (c) the size of the population. The implications are that there is a correspondence between these three features.

(1). The population reaches a threshold and when it spills over the grid divisions, the former autonomous unit emerge into components units.

(2). Since the Ka, Kup and Kanem are field systems superimposed upon one another, one can peel each layer and define them as independent functioning units; Ka being the most ancient structure and Kanem the recent functioning one. Therefore an interval of time can be determined for each of the structural levels.

(3). The four group levels in the Ka sequence are chronological markers and correspond to the history of Wahgi people outlined in Chapter 5.

In order to assess the beginnings of the Ka structure, the metaphors roots (*pulum*), bases (*mem*) and transplants (*ombom*) were used to develop a time scale. At least I have established, in Chapter 5, that the transactions of the *minmaan* substance involves between 75- 100 years.

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The phrase 'men square' defines the successful breeding of a pool of woman from a particular *yi gukum* group, which is often read as an outward expression of the blessings from the gods; reinforcing the balanced relations between the donors and recipients of the divination substance. One way of acknowledging individuals' dependence of their gods for success and continuity is to obtain symbols that represents the links between present realities and the past social configurations. In other words, the *yi doogum* groups are sovereign political units which use expressions like 'we are the 'shoot, 'vines' and 'branches' of previous sources, to trace their roots to the inheritance of the divination sources; the contribution of the *min* and *maan* from two social groups (the father's descent and the mother's ascent system).

As regards the population size, the proposition is that a *kopam kambin*, the reproductive founding population, reaches around 300 persons before the base units emerge into different Ka groups. Another 3 - 5 generations elapse before family units emerge into Kup units and so on along the structure. Although, the evidence of the number of generations between the structural levels is lacking (except for the Kanem (2) levels), the *minmaan* cycle (100 years) can be seen as operating within each of the structural levels.

The interval of time between Ka and Kup is approximately 100 years and from Kup to Kanem another 100 years. Therefore (a) the Ka structure is 300 years old, (b) the interval of time between each of the structural sequence is approximately 100 years and (c) the normal size of the political units before they split into smaller segments is 300 - 500 persons.

In general the segmentation process of the Ka structure begins with an emphasis on the dual inheritances of the divine sources. We do not know the kinship system that existed prior to the emergence of the Ka structure, but it is apparent that the groups associate with the origin stories and emerged from core groups like Nene, Kuma and Dambnge. These names pre-date the Ka sequence. Since the *se danjip kunum* (1600 AD ?) these groups increased in size to the normal capacity of the field/ ditch systems and

them emerged from the field systems into various base groups (Ka), which in turn spread into stock, stem, branches and vines. These idioms also symbolise the complete transactions of the planting substances, and therefore are summary statements on the four to five generation genealogical constructs.

Finally, the process of Ka segmentation appears to be related to the Wahgi social landscape (see Chapter 3) Indeed, among the S. Wahgi there is a division between the east and west: the groups east of the Minj River (see Map III) are using descent idioms in which the Kanem (2) level have reached *yi doog* division, while groups west of the Minj river do not use these descent idioms. This may suggest that the segmentation process has occurred earlier in the east and then moved to the west. In other words, the initial migration of the Ka people was from the higher slopes of the eastern Wahgi Valley- the domestic environment *Omb Kone* - towards the vast Minj grasslands (*Kul aak*). Thus, it is possible to demonstrate links between the emergence of the *Ka* people and the introduction of *ang ka* (the sweet potato) into the Valley three hundred years ago by using such a range of evidence and sources as the Wahgi origin stories, the social landscape, the genealogies and the group structure.

Chapter 7. The Wooden Shields

Introduction

Perhaps more than any other object, the wooden shields embody the symbolic and religious dimension of Wahgi warfare. These objects are often seen as an extension of the warriors, and a representation of shadow image of the fighting force. Being sacred objects, they appear in public only during formally organised wars. It will be seen in this chapter that the partnership between the carriers and shields is religiously sanctified and that the cultural definition of the shield as a hollow container relates to the central role of the *Kipe* in Wahgi warfare. The shield is used as a 'connecting rope' *(dombil kan)* between the people and the gods. Likewise, the various parts of the shield are seen to represent the body parts of the warrior. The popular preference to the red colour aslo has its religious associations (O'Hanlon 1989). The shields are also used as a screen to communicate aspects of Wahgi war talk. They are meant to reveal the underlying moral conditions of the performing groups, and the metaphors used by the spectators to describe the symbolic functions of the shield recognise the relationship between the gods and the warriors.

Objects of warfare

Before discussing the wooden shields in more detail, it is worthwhile to present them in their context, by examining them among other objects of war. The fighting objects in S. Wahgi are the bow and arrow, spears, axes and wooden shields. Bows, arrows and projectiles thrown from a safe distance aimed at a specific target are classified as lethal weapons. Bows and arrows can be produced in many forms and local typological variability depends on preference of raw materials. Most arrow tips are produced from palm trees and various species of bamboo plants *(mangak, waa, kose)*.

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Some elongated points have intricate designs. In most instances they are fired into the frontline sparingly and some are meant to have magical spells on them or carry social messages. One such is the special arrow (*opo ngamb*) which is meant to represent summary statements of 'war talks' (*opo yiu*) and it is the first arrow to be fired towards the enemy battle lines before the commencement of a battle. Apart from the specific association of some arrows with war talks, a large part of the assemblage performs utilitarian functions. Other objects, used for defensive purposes, include axes and spears, which can inflict bodily damage during formal battles only when the opposing fight partners comes close to their striking distance. Spears are produced from timbers, bamboo and palm trees. They are used mostly in connection with the shields. Additional items include iron rod spears, metal projectiles used as arrow tips, steel axes and fire arms. During fights any harmful objects in the battle routes such as sticks, stones and freshly sharpened bamboos/trees become objects of war.

The role of the shields is to deflect arrows and allow carriers to fight at close quarters with spears. A combination of these items allows warriors to defend, attack and protect themselves from their opponents. The raw materials for shields are (a) two types of timbers (*Tapi* and *Kinjip*), (b) rattan canes, (c) ropes and (d) cassowary feathers. Items added to the exterior surface of the board for non-functional purposes include designs and paints. The main qualities of the chosen timbers include (a) softwood grain texture, (b) easy to work with, (c) light-weight when successfully dried, and (d) able to absorb massive blows from projectiles. Recent innovations in protective devices have been the preference of metal sheets beaten to the shape of shields from 44 gallon drums, bonnets of vehicles, galvanised iron and corrugated metal (e.g. Plate I B2/2, B2/19, Plate II B2/10).

Description and classification

Classification and typology of material culture is an integral part of archaeology. Most practicing ethnoarchaeologists make more or less complete observations on the technological and functional requirements of the material culture of the ethnographic communities they study, and then draw analogies to prehistoric conditions. The methodological procedures follow an 'empiricist stance' in which the aim is not to reach the individual behind the artifact but rather the systems that ought to be read from the material culture. The relationships between material culture and behaviour are compared at a cross-cultural level; between present communities and/or between the present and prehistoric communities, with the aim of identifying the systems that were in operation at a given time. Hodder (1986:11) points out that empiricist methodologies, mainly derived from western attitudes and their view of the world, provide little support for understanding the role of the active individuals, cultural meanings and interactions between present realities and past ideas in particular historical contexts.

Following these points, the aim in this analysis is to show that the meanings of wooden fighting shields, just like that of safety pins, badges, body decorations of the Punk culture, does actually construct, transform and convey ideas (Chapter 1). The decorations and designs are part of the shields but symbolic dimensions and the 'style wars' of S. Wahgi people derive their meanings from the overall display and performance of the shields.

Any systematic analysis of this artifact requires an understanding of the social context in which manufacture, art and style convey historically specific and symbolic meanings to the participants. Although the personal art and style produced on the surfaces of the boards are limited by the interaction with others within a single fighting force and a socio-political unit, the individual choice for selecting a particular design or colour as opposed to another depends on a complex set of cultural attributes (and see Chapter 8).

While the shields could be described as protective devices, such generalised statements made from the 'outside' rarely reflect the peoples own attitude towards these objects. The difficulties of regarding the functions of wooden shields as protective devices are highlighted by referring to some of the questions asked and the responses from the informants relating to the purpose of display, performance and appearance in the battlefield.

Why did you attach cassowary feathers to the top end of the shields? What are the meanings of the decorations and designs on the surface of the boards? The feathers and geometric rattan cane designs did not serve any physical functions, yet they insisted that a shield without these features was naked. It looked bad and did not possesses a personality or shadow-image (*minmaan*). They drew the analogy between an undecorated shield and being naked. They asked me 'How will you feel if you walked into the public gathering without your clothes?' These difficulties are noted by Sillitoe (1979). He says that persistent attempts over several years eventually enabled him to understand the meanings of Wola bark and wooden shields. He remarked

> clearly to reflect on the meaning of the cross (on the wooden or bark shield) and explain it in words is to ask them the wrong question. They do not appear to think of the thing in this way (p. 488).

When the informants were asked about the functions of the wooden fighting shield there were always praise for their performance in the battlefield. These include (a) 'It flies like a bird during combat' (*kai bek bur dom*; O. Teke, A Oken, M. Mukap, P. Mal pers. coms); (b) a shield is 'people wing' (*akamp kongom*); (c) 'you go into the battlefield with the shield as if you were still inside your mother's womb' (*maanem kumbuk tualto punun*; J. Kimp, M. Teke, T. Bosip). These are some of the qualitative attributes that the spectators often used when they assessed particular performances.

When the S. Wahgi claim that the shields are akin to the wings of the birds and fly like a bird, they refer to the form, balance, harmony and co-ordinated movements that

each fighting force performs. It is a form of dance and the behavioural patterns combined with decorations, designs, colour symbolism and appropriate rituals in a battlefield draw a large crowd who are expected to assess and evaluate the performances. Shields are protective wall in this sense, rather than having practical functional connotations. Hence, it is within this framework that I defined Wahgi warfare as provocative and protective social strategies.

Accordingly, I asserted that warfare is a way of restoring the imbalances in the pairing of entities (Chapter 4). The social relations based on moral order and disorder, as paired entities, are most explicitly brought to the surface in warfare. Such a view seems to echo the functionalist attitude toward warfare as a social pathology (Chapter 1). But in S. Wahgi warfare, it is more often the moral condition of the individual warriors - and not their physical one - that comes under close examination.

The spectators in the Wahgi battlefield attempt to read the meanings much in the same way as ethnoarchaeologists attempt to classify, order, simplify data by means of redundancy and combine the material culture of the living ethnographic cultures with the past archaeological evidence. But the spectators who's evaluative judgement is taken seriously by the fighting force are not ordinary representatives amongst the crowd. They are war historians and do have a clear historical perspective of the social relations between the opposite fight partners (see Chapter 8).

What amounts to good or bad qualities of the displaying group will be influenced by the preceding series of interactions and/ or by expectations of future ones. Individual intentions, past likes and dislikes for the performing group, will influence the choice of qualitative attributes. Such lists include 'bearing', group size, movement of plumes, movements of the participants' legs, the paintings and decorative materials such as cordylines, arm bands, belts and shells (O'Hanlon 1989:112-114). An important point noted by O'Hanlon (p.111) is that evaluative judgements of the performances are not made on-the-spot but involve a discussion which often take into account past war talks

before a qualitative statement is publicly expressed. I shall discuss this view in the next chapter in relation to the recent Konombka and Kondika war (1989 -1990).

The general attitudes towards order and disorder have specific meanings in Wahgi warfare. It was described as 'holding the war talk' and 'telling the talk into the public'. I described the language of war associated with orderly behaviour and defiance of the normative values as a kind of hide and seek game. At one end of the spectrum are the social practices relating to the efforts by one potential fight partner to conceal the bad manner of their potential rivals and then use it as a source of divine power during periods of war. Those who hold the war talk believe that the fault is with the opponents and therefore attempt to seek divine guidance to punish the wrongdoers. I linked this practice with the belief system and in the case of warfare I equated the belief system with the general idea of spiritual equality and harmony.

At the other end of the spectrum are the efforts by the victimised group to reveal what they believe is their concealed wrongdoings held against them by their rivals. The signs of misfortunes, infertility, population decline, soil depletion and sickness are often said to be self inflicted and one of the remedies for solving the problems is for the victimised group to accept the divine *Kipe's* verdict that they are being punished for their own sins. In warfare, the act of divine punishment can be carried out by the opposite fight partners. Warfare creates a forum in which the public confessions or war debates centred around concealed aspects of moral order and disorder reach their highest point.

The wooden fighting shield is the surface for reading the inner moral conditions of the displaying group. The performance ought to translate the pre-fight rituals of exposing the concealed talks relating to the opponents' wrongdoings and demonstrate to the audience whether there is a spiritual harmony between the displaying group and their gods. Appearance in the battlefield provides an additional check system and the role of the spectators is to make sure that the gods have forgiven the sins of the performing group.

A performance in a particular battlefield may be described as dull and bad and the performing group is asked to repaint the shields. The same shields that appeared 'dull/matt' in the previous display may also be seen as 'gloss/glow' in the next performance (see O'Hanlon 1989:118). This is an important part of warfare. A good display means that there is no sin among the members of the groups. The individuals are protected and at the end of a formal battle one expects very few causalities and no deaths. A good performance means that the tone, meaning of the war chants and the harmony of the shield formation must have an impact on the audience. O'Hanlon's translation of an informants' assessment of war displays highlights similar statements recorded during the Konombka and Kondika war.

> On some occasions warriors' shields glow and shine. The plumes mounted on the shield tops sway backwards and forwards. The warriors' charcoaled skins glitter. They wield their spears easily. The spectators say: They're going to win today.... But sometimes their shields look unwieldy, their stomachs seem protuberant and their charcoaled skins appear drenched in ash. Spectators tell them that they will lose (p.111).

The spectators may find that the war chants are low, the warriors skins are dusty and the coordinated movements of the shield displays are not up to satisfaction. This is a sign that the fault within the performing group has not been thrown out and therefore there is not divine assurance that they are likely to be protected or win a battle. The fighting force is advised to withdraw temporarily from an offensive tactic and to form the 'backline'.

A bad display is an indication that someone is likely to die and the spectators tell the displaying group to go back and seek the concealed wrong doings. The truth must be revealed by the fighting group among themselves before a war is conducted. The procedure is carried out at two levels. The first sequence of public confession is conducted among the individuals who are members of a fighting force. The second sequence is carried out at the battlefield by a socio-political unit. The summary statement of a war talk is announced in the battlefield. It is meant to reveal the wrongdoings of one

group which may be used as a concealed war by the opposite partner. The spectators also listen to the war talks.

In this way the role of the spectators is like the role of adjudicator but more importantly they attempt to minimise the death and destruction between the opposite fight partners by allowing them to restore the differences before physical combat. The fighting force who's performance is evaluated as negative will try to ensure that every individual who is fighting for his group must feel that there is no fault in him and that he will not punished in the battlefield.

The spectators and the opposite fight partners consider the meanings on the shield as a 'total phenomenon'. This includes (a) the elements of human creativity on the wooden boards as artistic expressions and (b) how the behavioural patterns of the performing group combine the visual images with the practice of war. As we can see, the role of the wooden fighting shield is beyond that of a protective device. In fact every public confession in a battlefield is followed with a public shield display to the audience. The shield is a surface screen for reading the inner moral conditions of the displaying groups.

Description and Classification of the wooden shields.

The overall shape of the shields is normally divided into a number of sections. The S. Wahgi see the shields as the shadow image of the shield carriers and they are therefore decorated in the same way as that of their own body. The decoration on the top edge of the shield represents the plumes and feathers that individuals use as part of the 'head gear' (*ol kai)*. The area below the top edge is categorised as the 'head' (*pipin)* and symbolises the primary items such as wigs and caps (*peng kon)* used to cover the head of persons before the variety of feathers can be attached to them. The middle part is referred to as 'navel' (*dombil)*. The bottom edge represents the lower part of the body or the 'leg'

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(sipin). The Wahgi idioms that describe the various parts have wider cultural meanings. I shall discuss some of the meanings of the words (see, Figure 7.1). In general the terms head navel and leg are used to segment the surface of the shields into component units which are said to represent the different parts of the human body. A. Strathern and M. Strathern's comments on the Melpa shield decoration are applicable to S. Wahgi.

> A warrior's shield was almost an extension of himself (and perhaps this is why shields were ornamented). Shields have a head (their top) which is decorated with plumes, and their main surface is painted with designs which in appearance follows the painted cheek (1971:103 also Sillitoe 1980, 1989).

The top end is incised or reduced in thickness (1 cm) on the exterior surface (outer surface of the timber). Closely spaced holes are bored along the horizontal axis at the junction between the reduced section and original thick surface. A geometric rattan cane design is woven on the reduced surface thereby replacing the inclination and retaining the original thickness. Below the cane designs is a thin layer of intricate motifs which is more profuse and detailed than the rest of the surface. Feathers are coiled around the rods and the individual rods are evenly inserted parallel to the length of the shield and across the entire width of the top edge. The feathers are referred to as 'long birds' *(ol kai)*.

The four holes at the mid-point or central position of the shield (lengthwise and perpendicular to long axis) are referred to as the 'connecting chord' *(dombil kan)* The word *dombil* refers to a chord that connects two things together so that the functioning of one element is dependent on the other. It is a metaphor derived from the reference to the life giving umbilical cord of a child between himself and the mother. It is extended to describe the connecting ropes that linked the shield to the carrier. Ropes are fastened around the holes forming a diagonal cross on the exterior surface with open space in the inside part for inserting the shoulder ropes. Along the edge of the long axis of the shield, the hand ropes are inserted *(angik kan)*. A left hand shield carrier places the ropes on the left hand side and the right land carrier on the right hand side. The lower section of the shield is defined as the 'back' or 'base' of a container *(sipin)* - see Figure 7.1.
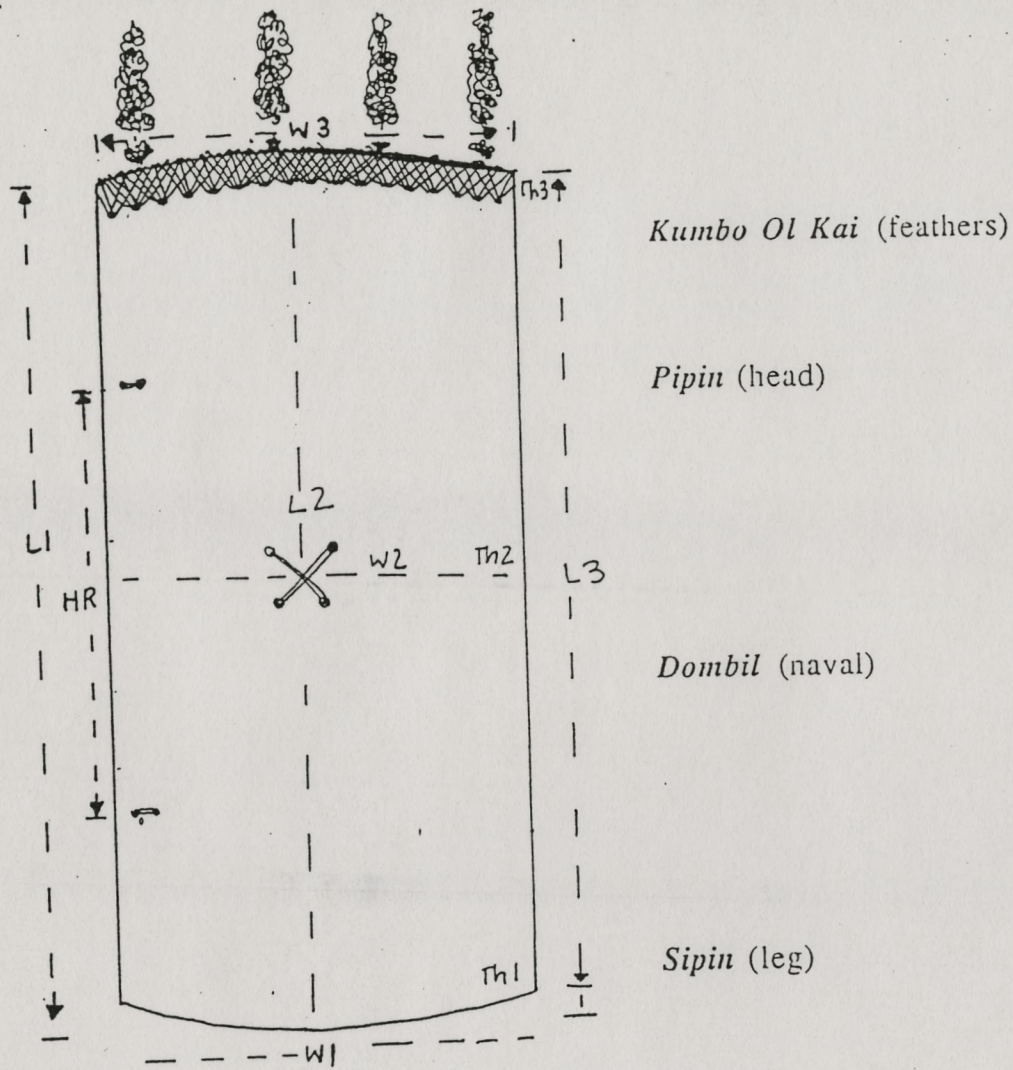
Figure 7.1. The ideal shape of a shield with the location of the measurments discussed in the text, and the Wahgi terms for its various parts.

By S. Wahgi cultural standards a shield is a split part of a round timber. It is a hollow container that has been split into component units. During the course of production the shield makers culturally transform and attempt to reverse the altered stages of split timbers to their 'original forms'. The natural stage of the round timbers is broken into parts and then the parts are decorated to give a cultural meaning of roundness. This is signified by the identification of the different parts of the shields with words which are normally used to describe hollow containers. *Pipin* means to close the top end of a hollow container. *Sipin* is the base or edge of a hollow container. In a wider context, the bamboo containers (*mangak ming*) used for water storage and specially hollowed tree trunks made for oven-cooking (*mundun ming*) will have the same words for the top (*pipin*) and bottom (*sipin*) edges.

Data Collection

There are a number of ways to interpret the many layers of cultural meanings contained in this single object. I shall start with various measurements of the shields, but it should be clear that the division of the shield into different measurable parts is my own, and not that of the Wahgi people. The dimensional attributes of 45 shields (out of a sample of 177 observed among the S. Wahgi) were taken during two fieldwork seasons. The equipment for measuring shields was a tape measure, graph paper, bale of string, colour pencils and visual aids. Each shield was photographed. The designs and colour of the shields were drawn on graph paper. The presence of foreign materials was noted. A tape recorder was used to interview the owners. The interview questions related to personal details of war, technology and raw materials and the meanings of designs on the shields. For accuracy and consistency, the measurements of the basic dimensions were taken in three places but the figures were calculated to give the average measurements of the shape and size of the shields. The measurement of the hand ropes included the recording of the space above and below, the long axis of the wooden surface. But the

analysis only used the measurements from the actual length of the hand rope. The measurements of the shape and size of the shields followed the plan shown in Figure 7.1. The definition of the dimensions of the surface of the wooden shield are described below.

Length (L1, L2, L3): The length of the shield is defined as the maximum dimension of the wooden board. The measurements were taken at three places. L1 and L3 are the margins of the long axis. L1 is the length on the front side where the hand strap is attached. L2 is the maximum length measured through the midpoint of the long axis of the shield. The navel or umbilical cord is used as the central point for measurement.

Width (W1, W2, W3): Width is defined as the distance perpendicular to the long axis of the wooden surface. W1 and W3 are maximum breath at the top and bottom end of the shield and the distances is measured across the long axis of the shield. W2 is measured across at the centre of the navel of the shield.

Thickness (Th1, Th2, Th3): Th1 and Th3 were measured at the edges and long the line in which width measurements were taken. Th2 corresponds to W2. It should be noted the thickness of the shields along the sides of the shields may not correspond to the central part. Shields made from modern materials such as metal sheets are much thinner than the traditional timbers.

Hand Rope (HL): The side on which the hand ropes are attached was divided into three segments. The measurements were taken at three places; from the edge of the head *(pipin)* to the top end of hand rope, the length of the rope *(angik kan)* and the bottom edge of the rope to base *(sipin)*. Stability, balance and complete control of shields are ensured by the hand ropes. Without them the shields are clumsy and if carried on the shoulders, the boards will be swinging in unpredictable directions. The hand ropes must not be flexible because the control of the shield depends on the strength of the hand ropes.

Shoulder ropes (SL): A piece of string was used to measure the circumference of the knotted ropes and then the length of the strings were measured with a tape

measure. Shoulder straps are essential because shields have to be carried above the ground. The flexible ropes are fastened to the four holes.

Designs and Colours; Data collection.

The analysis of the decoration, designs and colour on the wooden surfaces required a different set of procedures. Of the three obvious elements of the surface of the wooden board, I discuss here the designs (*kumbo mon*) and the paintings (*tol mon*), and not the feathers and rattan decoration (*ekin*) on the upper part of the shield. The initial incision of motifs before subsequent colouring is described as 'shield details' *(kumbo mon)*. The combination of the motifs stem from three basic shapes; triangle, circle and rectangle. Some formal properties of the shields are identified and classified into various categories. The typology follows (a) the terminologies associated with some of the shapes and (b) takes into account where they are meant to appear on the body of the shield; head, navel and legs. More details on this typology will be given later.

The data on the analysis of the designs and colours of the shields come from two sources; the Ka groups of the Tapia region and the Konombka battlefields. The 42 shields used in the previous analysis are divided into two groups. One group consists of 36 shields which come from the Ka groups of the Tapia region (Golikup, Tuimekup, Kopanka and Tangilka). The other group consists of five measured shields and apart from these, I have been able to photograph, in colour and black and white, a number of shields from several battlefields, as summarised in the table below.

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Ka Groups	Sample size	Source/data collection
Golikup (658)*	6	measured/colour photographs
Tuimekup(1041)	2	measured/colour photographs
Kopanka (610)	13	measured/colour photographs
Tangilka (1100)	16	measured/colour photographs
Konombka (4100) (battlefields)+	5	measured/colour photographs
Bala	22	Colour/ drawings
Gukmol	51	Colour/drawings (8 b/w)
Paknga	34	Colour/drawings (14 b/w)
Kamang	30	Colour/drawings (17 b/w)
Total	177	

* (population)
 (Konombka battlefields 1989)

Table 7.1. The number of shields used for analysis of designs and colours from various Konombka battlefields groups and from the Tapia region.

In this table, I have indicated whether the shield designs and paints were recorded in colour or black and white photographs. The black and white pictures are used to analyse the designs of the shields. They do not say much about the colour symbolism. The distribution of the colors among the various battlefields is mentioned in conjunction with the distinction between the fighting force and the socio-political units in the next chapter.

The designs and colours on the wooden boards were traced on to graph papers. The average dimensions of the shields from the previous analysis were used as the standard measurement for drawing the outlines. The paintings of the sketched diagrams (Plates I - VII) are not necessarily identical to the original shields, though I tried to drawn them as accurately as possible. The records of the shields from the Konombka are organised according to the battlefields in which the shields were used. The data collection was restricted to groups where access to the objects were possible.

Analysis: dimensional attributes

Length: The average length of the wooden shields is 160 cms (n=45) and the width is 65 cms. It is often said that the height of the shield almost corresponds to the height of the owner (Strathern & Strathern 1971, Sillitoe 1987, Vayda 1968), but the S. Wahgi shields are slightly higher than the actual height of the carriers, at the most by a length of 50 cms. The data on the height of the carriers are not available and further comparisons are left aside.

Average length of the Wooden Shields

15.56%   11.11%

17.78%

20.00%

35.56%

■ 145-150 cms   ☐ 151-155 cms   ▨ 155-160 cms   ▦ 161-165 cms   ▨ 166-170 cms
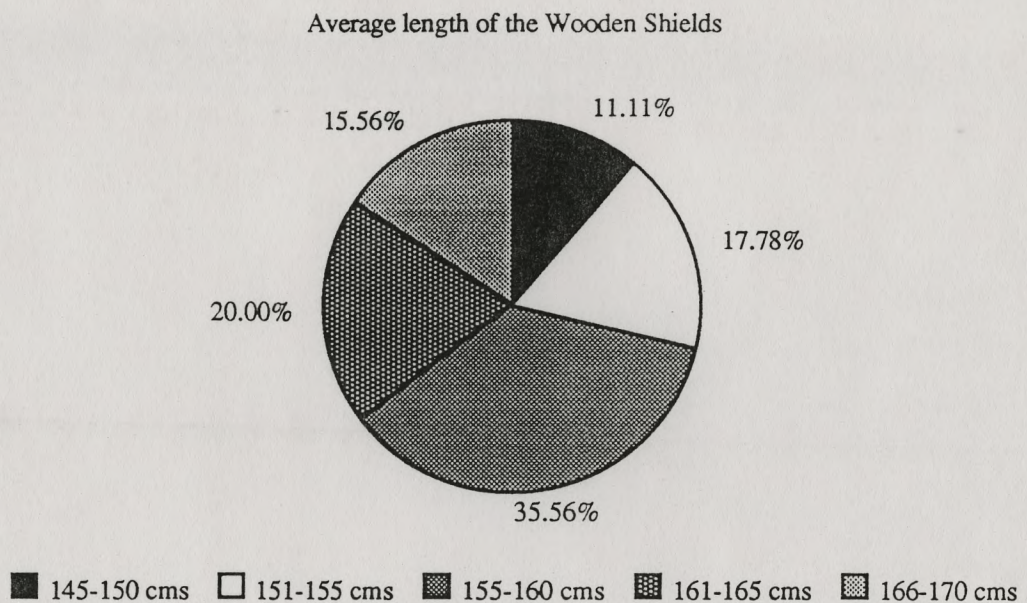
Figure 7.2. The average length of the wooden fighting shields from the Tapia (n=36) regions and Konombka (n= 9).

Width : The width of the shields (average 61-65 cm) is often influenced by the original shape of the timbers. Despite the fact that the shield makers attempted to modify the surface, in particular to widen the original natural curves of the split timbers into a flat

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surface, it the usually the case is that the modifications use the natural curvatures and shapes of the original timbers.

Average width of the wooden shields

50-55 cms   ☐ 56-60 cms   🔲 61-65 cms   🔲 66-70 cm   🔲 71-75 cms   🔲 76-80 cms
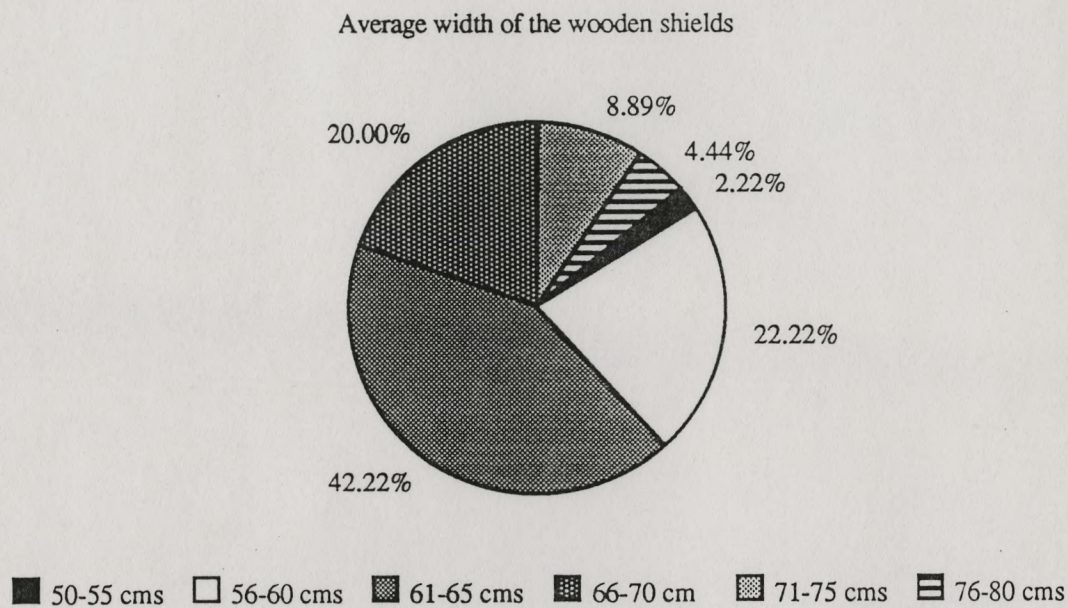
Figure 7.3. The average width of the wooden fighting shields from the Tapia (n=36) regions and Konombka (n= 9).

Thickness: The shields are 1-1.5 cms thick, but this figure reflects the measurements along the sides rather than the central parts of the shields.

Weight: Though the data on weight are not available, I can only recall my own experience of carrying the objects into the battlefield and back to the central activity areas. In most cases, the distance of the battlefields from the inner zones is an hour's walk. There are two carriers per shield; those who transport the shield from one destination to the other and those who use the shields to fight in the battlefield. The young men between the age of 15-20 years pair with some of the well known fighters and carry the shields

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from the base to the battlefields. They also use the shields to participate in displays and performances.

Shoulder rope (SL): The height of the shields above the ground depends on the length of the shoulder ropes. Normally the shields must not reach above the calf muscle of the shield carrier. The bottom end of the shield is approximately 20 cm above the ground when the ropes are hooked on the carrier's shoulders. In some shields there are more than two shoulder ropes. Of the 42 shields 50% had optional ropes which are longer (av. 41 cm) than the standard ones (av.37 cm). The short ropes are for fighting and the long ones are for transporting the shields to various destinations as required during the battles. Although measurements considered the length of the knotted ropes, the warriors can adjust the ropes on shields without an optional one for transportation. In other words, some warriors prefer two shoulder ropes and others are happy with a single one to suit both purposes (fighting and transportation).

Length of the Shoulder Ropes

50-55 cms   56-60 cms   61-65 cms   66-70 cms   71-75 cms   76-80 cms
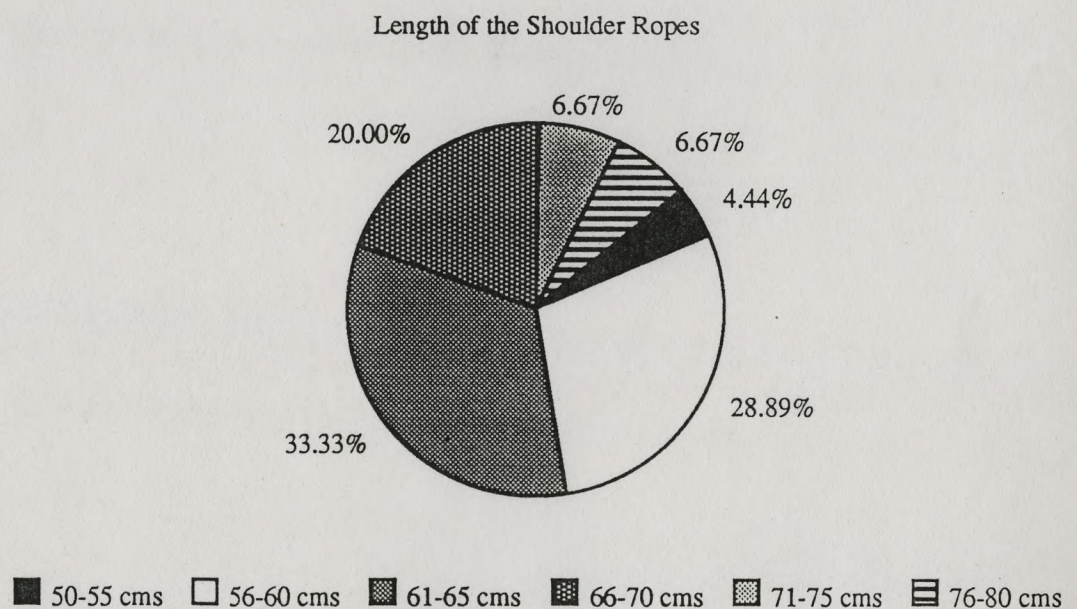
Figure 7.4. The distribution of the length of the shoulder ropes of the wooden fighting shields.

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Hand ropes (HL): The hand ropes occupy almost the half length of the whole shield. The distance between head of the shield and the intersection of the hand rope is 40 cm. The average length of the hand rope is 77 cms. The distance between the bottom edge of hand rope and the base of the shield is about 42 cms. The lower end of the hand rope is often measured according to a full arms stretch and the lower limit will be just about the knee area.

The fingers grasp the ropes between the body and interior surfaces, in which the thumbs are hooked on to the ropes. The slight movement of the thumbs control the horizontal movement of the shields which are strapped on to the carriers' shoulders in a vertical position. This is important because its function is to allow the shield carriers to pull the ropes with full force and deflect the spears.

The length of the Hand Ropes

13.33%   2.22%   11.11%

8.89%

22.22%

42.22%

■ 61-65 cms   □ 66-70 cms   ▦ 71-75 cms   ▦ 76-80 cms   ▦ 81-85 cms   ▤ 88-90 cms
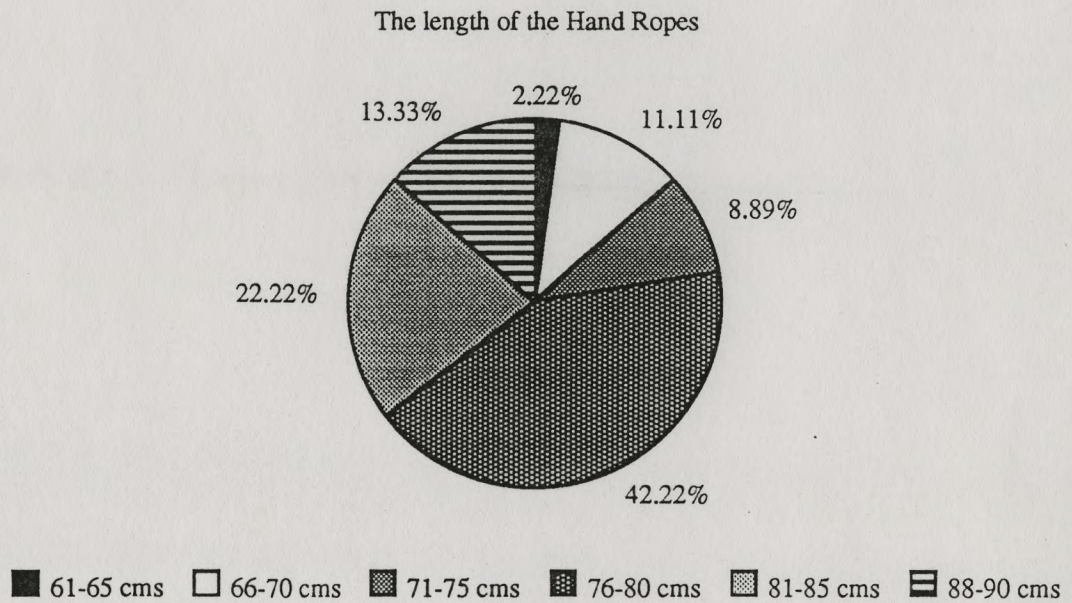
Figure 7.5. The distribution of the length of the hand ropes of the wooden fighting shields.

Designs and colours

The patterns on the shield were isolated into independent units. This is an analytical convenience and does not account for the complex religious meanings that they are meant to express. All the shields have more than a single design (except for Type 1) but the S. Wahgi people rarely explain or classify the shields in terms of the common occurrence and/or absence of forms with specific meanings. Rather, certain attributes on the shields are selected as being of primary relevance. Elements such as triangles, circles and rectangles are preferred according to wider cultural meanings. In general the order of appearance of the shapes on the different parts of the body of the shields relate to such cultural ideas as the importance of the 'head, 'navel' and 'leg' parts of the human body. In some cases the head would be seen as more important the the navel or the leg. In other cases the navel is important. Sometimes the designs were discussed in conjunction with the type of colours associated with a particular set of motifs. The eight types are represented in Figure 7.6, and discussed below.

Type 1 - *Kekep* (Figure 7.6). This category signifies part of the final stages of the shield production and it is a technological category. All new shields that have been decorated but without designs and paintings are often regarded as 'cut' or split *(Kekep)* ones. This shield type is only applicable to situations where the warriors were not able to add the final touch on the surface and undoubtedly the shield will be modified during the course of a war. Once they have undergone various stages of artistic alterations they are classified according to the different type of designs. Only 4% (5) of the Konombka shields were partly finished at the time of recording. There were no cut shields among the Ka groups of Tapia because the shields were measured after the 10 year war. All of them had been designed and painted from time to time during the course of the war.

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Figure 7.6 The eight types of shield design.

Kumbo
Ol Kai (Feathers)

Pipin (head)

Dombil (navel)

Sipin (leg)
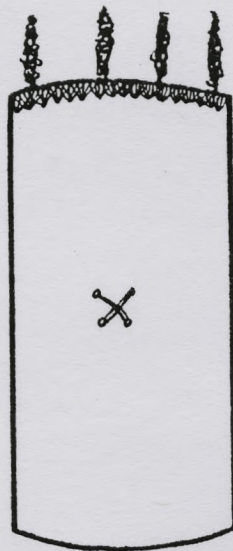
1. Kekep
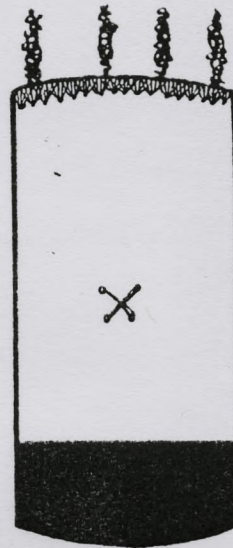
2. Nginimb
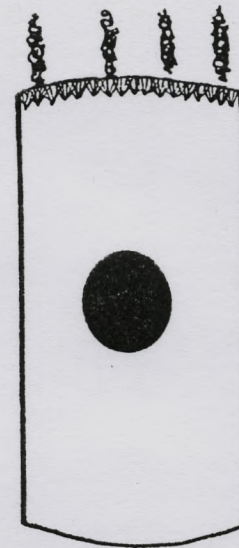
3. Olge Mon

4. Mangak Tandkanem
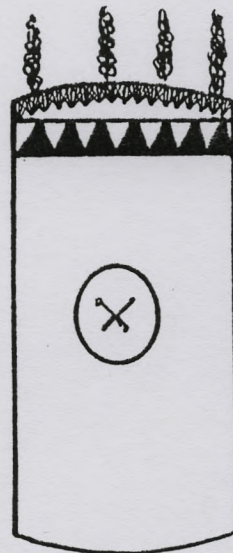
5. Kelnge Kambin
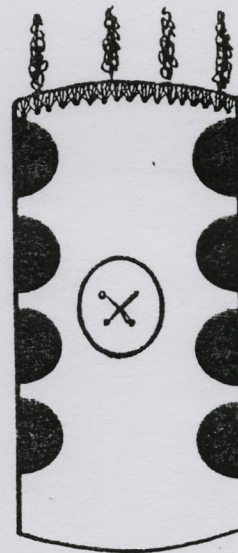
6. Jerepere

7. Kukumb

8. Korkanjip

Type 2 - *Nginimb* (Figure 7.6 and Plate III B5/7, VIII Ka/28). This is another typology which refers to the initial stages of painting. The production of the shield reaches a *Kekep* stage and if the warriors are faced with a situation where they are forced to use the new shields, the immediate response is to paint the leg section with black colour. It forms a rectangle shape across the shield. The appearance of rectangle shape at the navel and head of the shield is defined as *Nginimb*. This is purely an arbitrary division and it is possible that the strip of rectangles that cross the middle and top part of the shields may have other local names.

Black *(Nginimb)* is the predominant colour used for the rectangle at the leg but this is not always the case. This category is overlapped with other motifs from Type 3-8 and when there are more than two design types on the wooden surface, the black category receives secondary importance. Sometimes the colour black is culturally less significant because it is said that when the shield is placed in a standing position, the leg part rests on the surface of the ground. Therefore it accumulates a lot of dust and dirt on the bottom of the shield. The colour blends in with dirt and for this reason the warriors felt that the black colour at the bottom of the shield had practical functions.

The colour is seen as concealing and corresponds with the smearing of warriors faces (also see A. Strathern & M. Strathern 1971:154). The practical function is often said to to prevent spear injuries to the feet, head and to disguise the warriors. In other contexts the rectangle shape expresses openness and represent avenues for public affairs such as the ceremonial ground and battlefield. In the practice of war a rectangle shield formation represent open displays *(kumbo ngom)* and victories in close combat encounters.

Among the Konombka battlefields 80% (24) of the shields from Kamang contained rectangle shapes and 93% (28) had black colour. The average distribution of the shield with rectangle among the other Konombka battlefields falls between 60%-70%. About 64 % (24) of the shields from Tapia region have rectangles and 91% (36) are painted with black colour.

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Type 3 - *Olge kamp mon* (Figure 7.6 and Plate I B2/4, B2/5, B2/19, V Ka/15). The criteria for classifying a shield as *Olge* is the appearance of the circle in the middle part of the shield. Most circles associate with diagonal lines running from the *dombil* to the *sipin* and *pipin*. The lines divide the entire surface into four triangles. The term *Olge* has two meanings. It refers to full moon and also it is used to describe a spider's web *(Olge kamp)*. The diagonal lines that divide the surface into four triangles are often interpreted as spider's legs. The full moon or full moon spider designs is one of those shield categories that hold an ambiguous position in the classification system. Since they appear in the mid section of the shield, the top and bottom space are often filled with other designs. In particular the *Nginimp* (rectangle) design appear at the bottom and *Kelnge kambim* appear at the top. Normally, the people ignored the rectangle shape at the bottom and preferred to classify it either as Type 3 or Type 5.

Some informants argued that their shield had a *Olge mon* at the navel but the head was more important and symbolised the head of a person. Additional items such as rattan canes and the 'long birds' *(ol kai)* extended the image of the carrier. It was meant to look good and they argued that the repetitive closely spaced triangles across the width of the *pipin* of the shield, imitated the application of designs on the human face (also see A. & Strathern 1971:103).

Those who described the same shield as *Olge* said the appearance of the circle on the middle part of the shield is something that was passed down from their ancestors. They said they designed it this way because this is 'how our ancestors did it' (notes from D. Wardlaw, 1989). These contrasting views provide some background to the discussion on some of the cultural values on the round shapes which is often associated with the sacred and religious aspects of Wahgi life. The full moon design is the common type and on average 70 % of the shields from each of the sample Ka groups and the respective Konombka battlefields fall into this category.

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Type 4 - *Mangak tandkanem* (Figure 7.6 and Plate II B2/13, B2/15, V Ka/12). A cross on the entire wooden board without a circle is referred to as 'bamboo leaf' design *(Mangak tandkanem)*. It is often described as the bamboo leaf with the tip end of the leaf pointing to the navel part of the shield. The triangle shape also relates to a fighting technique know as *kugang mangake*. Nearly 30 % (10) of the shields from the Ka groups of the Tapia region fall into this category. The notable difference is that none of the shields from Kamang contain the bamboo leaf design but 17% (23) of the shields from the rest of Konombka battlefields contain the combination of triangles on the different parts of the body of the shield but without a circle at mid-point of the *dombil* section.

Type 5. - *Kelnge Kambim* (Figure 7.6 and Plate V Ka/15, VI Ka/23). A closely spaced series of triangles drawn across the head *(pipin)* of the shield is classified as 'the thing that lives side in the *Kelnge* tree'. The *Kelnge kambim* shield designs are mostly part of the *Olge* designs. It is claimed that the triangle designs represent the patterns on the insect. Often the detail motifs on the head of the shield taken as an example of how decorations appear on the head of the people, The triangles in the form of zigzags run along the sides of the long axis of the shields. Among the shields from Tapia region 31% contain the zigzag lines on the *pipin* section. The shields from the Konombka battlefields contain 17% of the closely spaced repetitive triangle, except for Paknga which has 32%.

Type 6 - *Jerepere* (Figure 7.6 and Plate V Ka/13, VII Ka/26). When the circles are split in halfs and appear as semi circles the shields are regarded as 'walking side-ways' *(Jerepere)*. This implies that the shields have more than a single line defining the three shapes and at the same time that they have a combination of semi-circles or circles and smaller repeated triangles within the major shapes. The positions of the semi circles are away from the *dombil* part and oriented with the curved sides towards the

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inner surface of the shields. This is an ambiguous category and may be taken to mean a shield that has too many designs (as in walking side-ways; a complicated movement). I described most of the shields with semi-circle shapes and any shield that had closely spaced details apart from those identified earlier as *Jerepere*. There were no *Jerepere* shields from the Golikup and Tuimekup pairs, whereas 31% (11) of the shields from the Tangilka and Kopanka fight partners could be described as *Jerepere*. Among the Konombka 17% of the shields were clustered in this category.

Type 7 - *Kukumb* (Figure 7.6 and Plate VI Ka/34, VII Ka/31). When triangle, circle and rectangles appear as exclusive elements on the *pipin, dombil* and *sipin* respectively, they are described as *Kukumb mon*. This is a combination of Type 2, Type 3 and Type 4 but without a repetition of the triangle at the leg section similar to shields with bamboo leaf design. Whether the term refers to a type of spider or the *Kukump* tree remains to be clarified. Some claim that *Kukumb* refers to a spider web but it is likely that the pattern may have some similarities with the leaves of the *Kukump* tree (see also A. Strathern & M. Strathern 1971:103). Among the Tangilka 31% (4) of the shields contain *Kukumb* design. Except for one shield among the Golikup, the sample from other Ka groups of Tapia regions does not contain a *Kukump* design. At Gukmol battlefield and Paknga battlefield, 16% and 18% of shields had *Kukumb* design. It was less popular among other Konombka battlefields.

Type 8 - *Korkanjip* (Figure 7.6 and Plate VI Ka/21). Shields which have star designs have been labelled as 'the 'lazy bright object' (*Korkanjip*). Informants claimed that the star is not traditional design. Two shields among the Tangilka had star designs; one at the *dombil* area and the other one the *sipin* region. Two shields had star symbols at the Kamang battlefield. Their appearance on the shield surface is similar to that of the Tangilka shields. One shield from Paknga battlefield had a star symbol on the *dombil*

Shield designs from Konombka battlefields
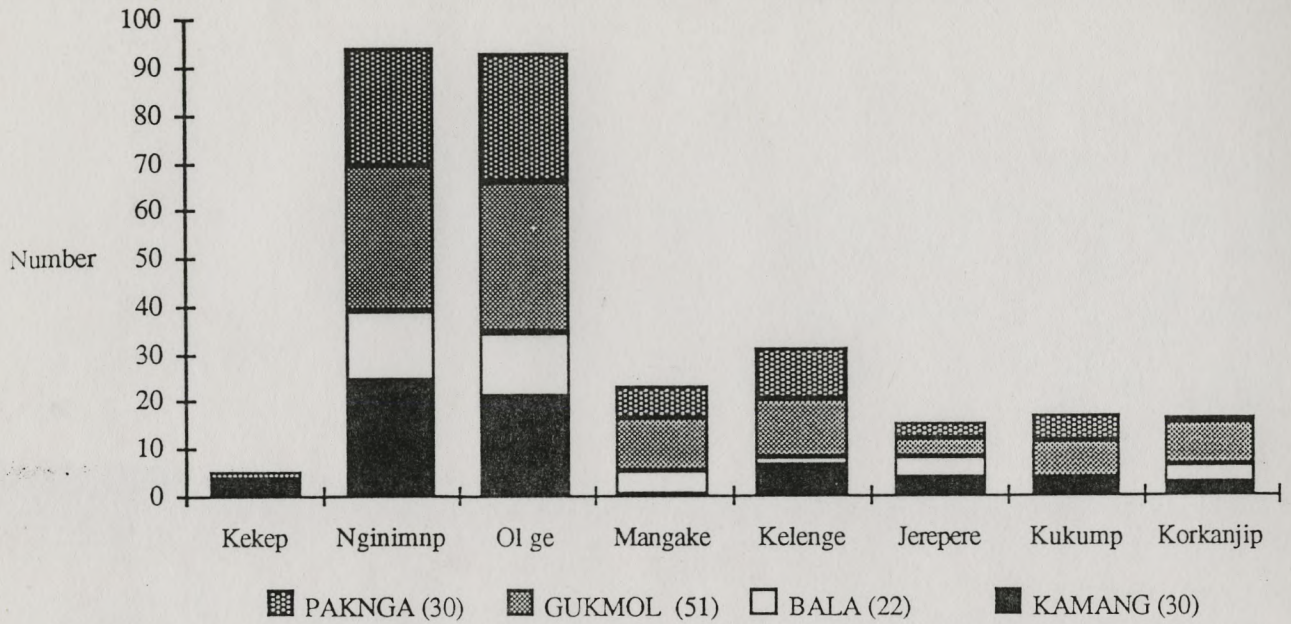
Figure 7.7. Distribution of the shield design types from the Konombka battlefields (1987&1989).

Tapia Shield Designs
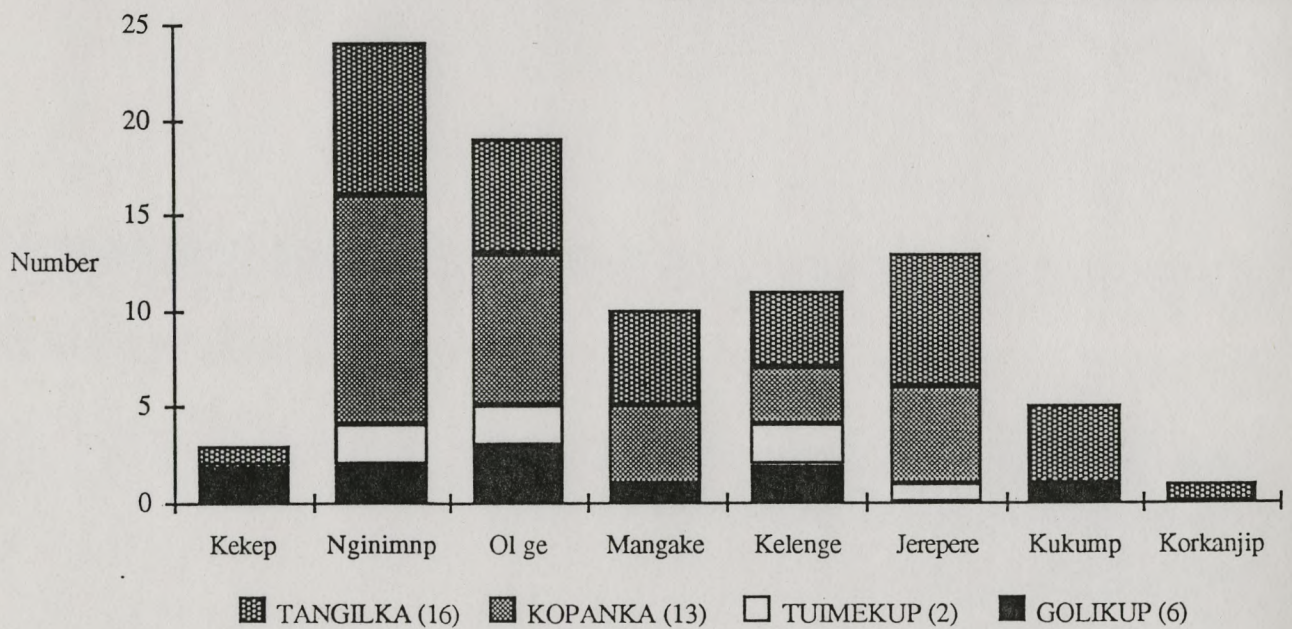
Figure 7.8. Shield designs from the Tapia region

Shield designs of Konombka and Tapia
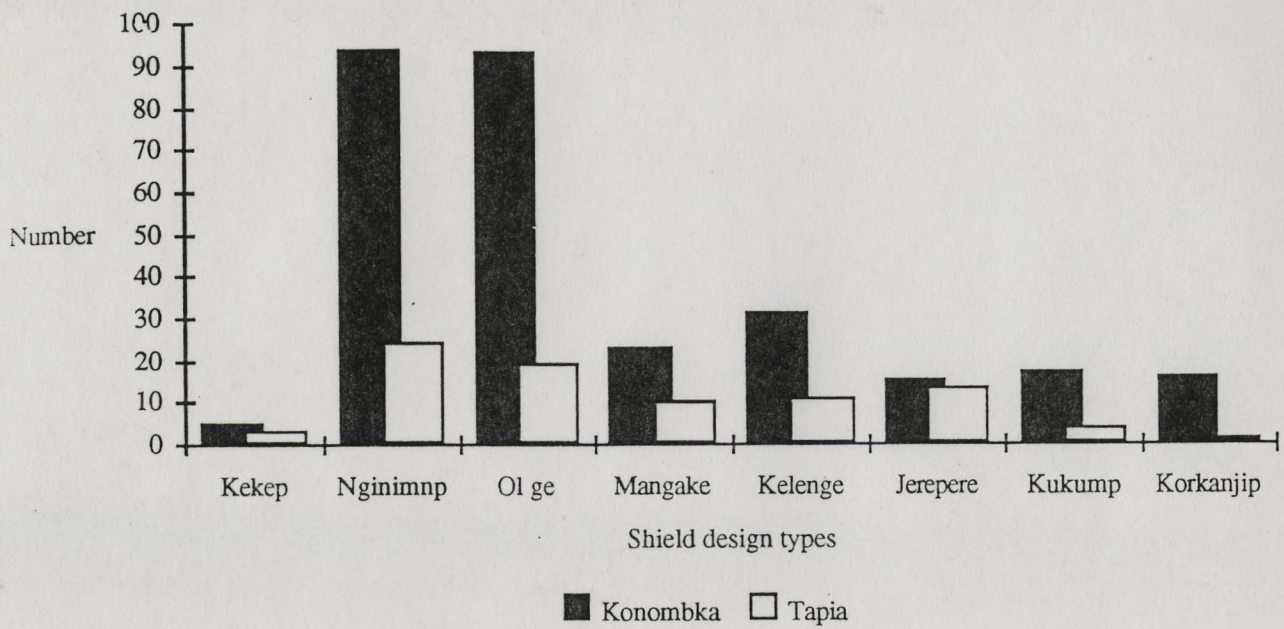
Figure 7.9 Comparison of the shield designs between Konombka and Ka groups of Tapia region.

Konombka shield colour distribution
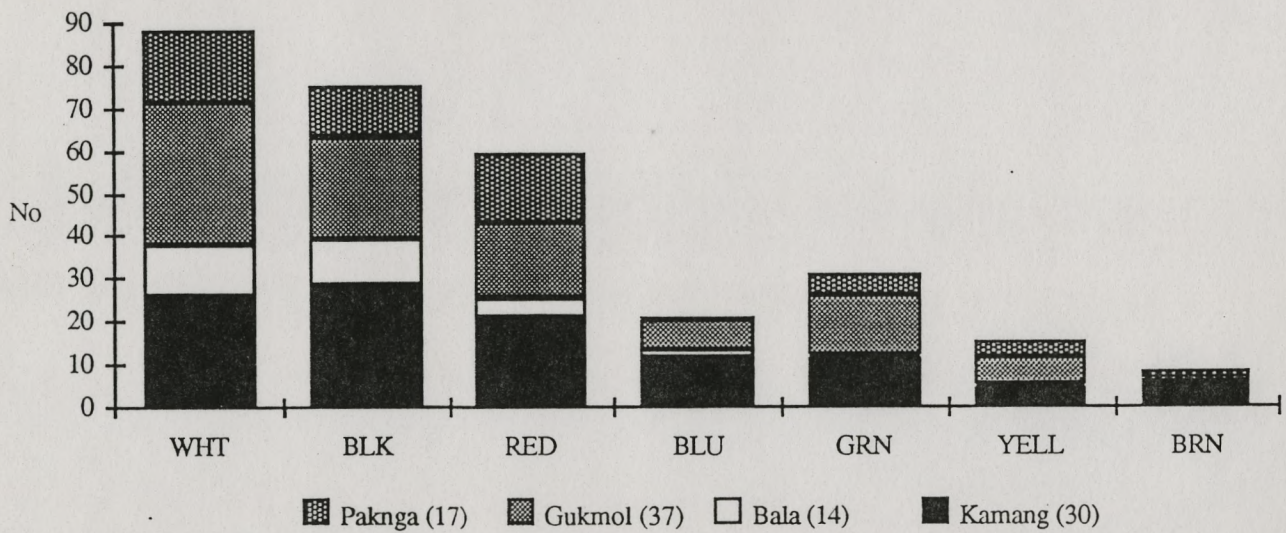
Figure 7.10. Distribution of colour types of wooden shields from the K. Konombka (1987-1989)

Wooden shield colour distribution
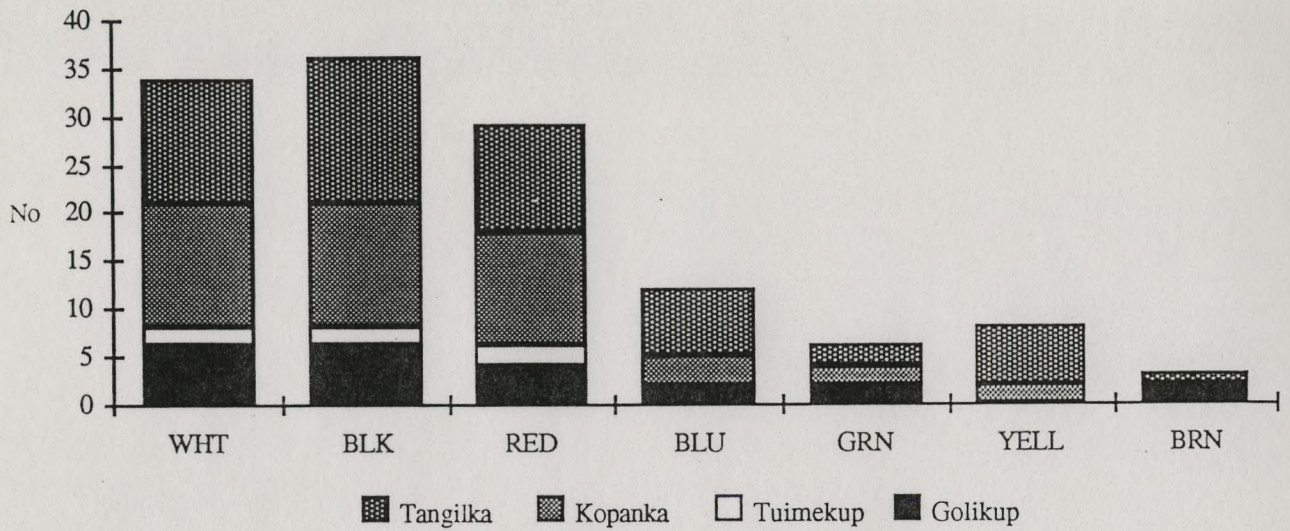
Figure 7.11 The distribution of shield colour types from Tapia region.

Konombka and Tapia shield colours
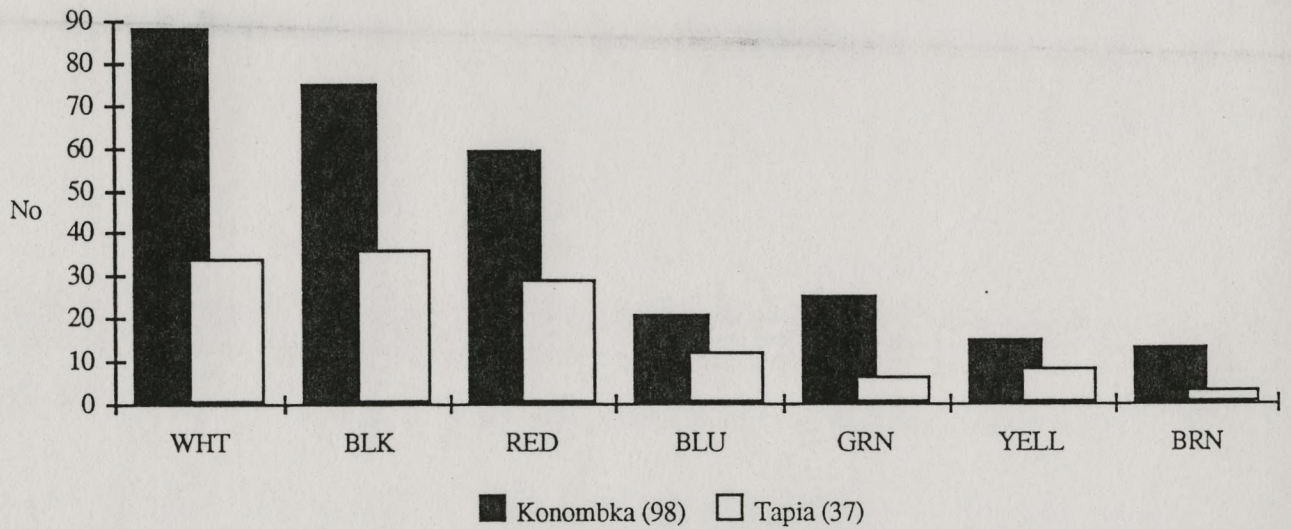
Figure 7.12. Comparison of the shield colour types from the Tapia region and from Konombka battlefields.

region. Nine of 51 the shields from Gukmol and 4 of the 22 shields from Bala had the star symbols.

Most of the star design associate with other modern symbols. These include inscriptions of words, the diamonds, hearts and spades copied from the motifs on the gambling cards. Other designs come from advertisements such as beer and soft drinks, and some shields have human figures.

Analysis: Colour combinations

The application of colours on the designs (see Plate 11) is referred to as 'shield paint details' (*kumbo tol mon*). The term *tol* refers to colour and it can be used as a prefix to describe the different colour names. The traditional colour combinations are red (*tol bang*: *gono*; bright red and *kong maiam*; dark red), black (*nginimb*; refers to charcoal, *jipik* dye black) and white (*kuru*; cloud white and *tol tup*; clay used as white). The other traditional dyes were yellow *(tol balau; terbe, singamanga)*; orange *(bukinjs, kiskok)*; pink *(numb)*, blue *(maingek)* green *(ond aukem)* and brown *(ond nganjim)*. The traditional names, like the classification of terminologies associated with the shield designs, refer to a wider framework of cultural meanings. Some names are derived from plants that produce the colour *(balau, singamanga, numb and bukinjs)*. Others are named after elements which have natural colour such as the clouds *(kuru)*, clay *(tol tup)*, blue sky *(maingek)*, the green leaves *(ond aukem)* and the brown *(ondom* or *nganjim)* stems of trees and so forth.

Colour symbolism in the Wahgi Valley has been analysed by a number of anthropologists in relation to body decoration (O'Hanlon 1989, Reay 1975, Strathern & Strathern 1971, Layton 1977). The general conclusion is that a 'totalising' approach to understanding the colours is less informative. The reasons are that the colours do not function in a fashion parallel to morphemes (units of meanings) or phonemes (elements of sound of language).

O'Hanlon's discussion on colour symbolism shows that qualities other than colour and colour symbolism are used to evaluate the surface appearances. He indicates that colour as a topic or colour terms did not appear in conversations and that he did not heard the Wahgi make a kind of generalising statement on colour symbolism (p. 116). The essential point is that the colour terms are referred to as 'being good' or 'bad' in particular context. A colour in one context may be said to be good and in another context bad and he quotes examples of the different meanings of red.

The light skin colour is good as opposed to dark skin colour of persons. Red can also be associated with negative aspects. The examples of the negative extremes of the red colours are drawn from warfare, fertility rites and taboo substances. O'Hanlon points out that the bitter war is often referred to as *opo karai* named after the red Raggiana plumes worn for it (Chapter 6). It is possible that the splitting of the inheritance of the common life giving substance has some association with the red colour. Red is also associated with death. For instance red cordyline plants and other plants with the natural red colour are often planted in the cemeteries.

Earlier I proposed that red associates with the *Kipe* and *minmaan*. They are key elements which ensure the power among the individuals to judging the good and bad qualities of appearance and performance not only in warfare but other communal activities that involve a public presentation to an audience.

I shall not go into details about colour symbolism but there are areas in which colour plays a dominant role. It is possible to indicate that the colour patterns on the shield sometimes express the identity of the fighting force rather than the socio-political groupings. A fighting force is a territorial unit and the membership is not strictly defined by kinship connections. Individuals who have residence and cultivation rights may fight along side those who trace their connections through common ancestors.

. The distribution graphs of the shield colours show that red, white and black are preferred by the *Ka* groups of Tapia and Konombka *Kanem* units. The important aspect

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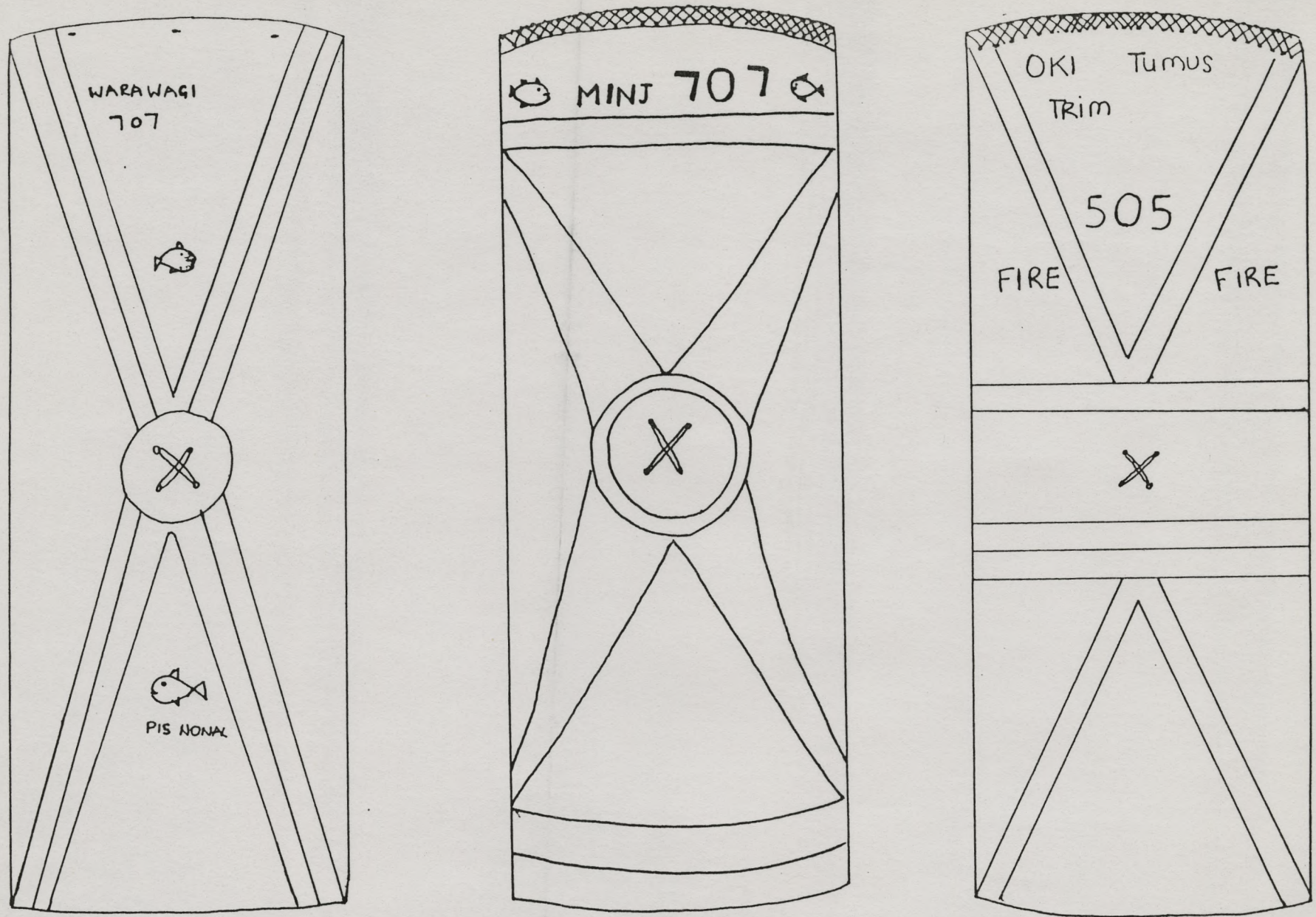
Figure 7.13. Shield Designs with symbolic messages (WARA WAGI 707, Minj 707, PIS NONAL, 505 Fire, Fire) from the Konombka battlefields. (From left to right; B2/35, B3/25 and B1/21).
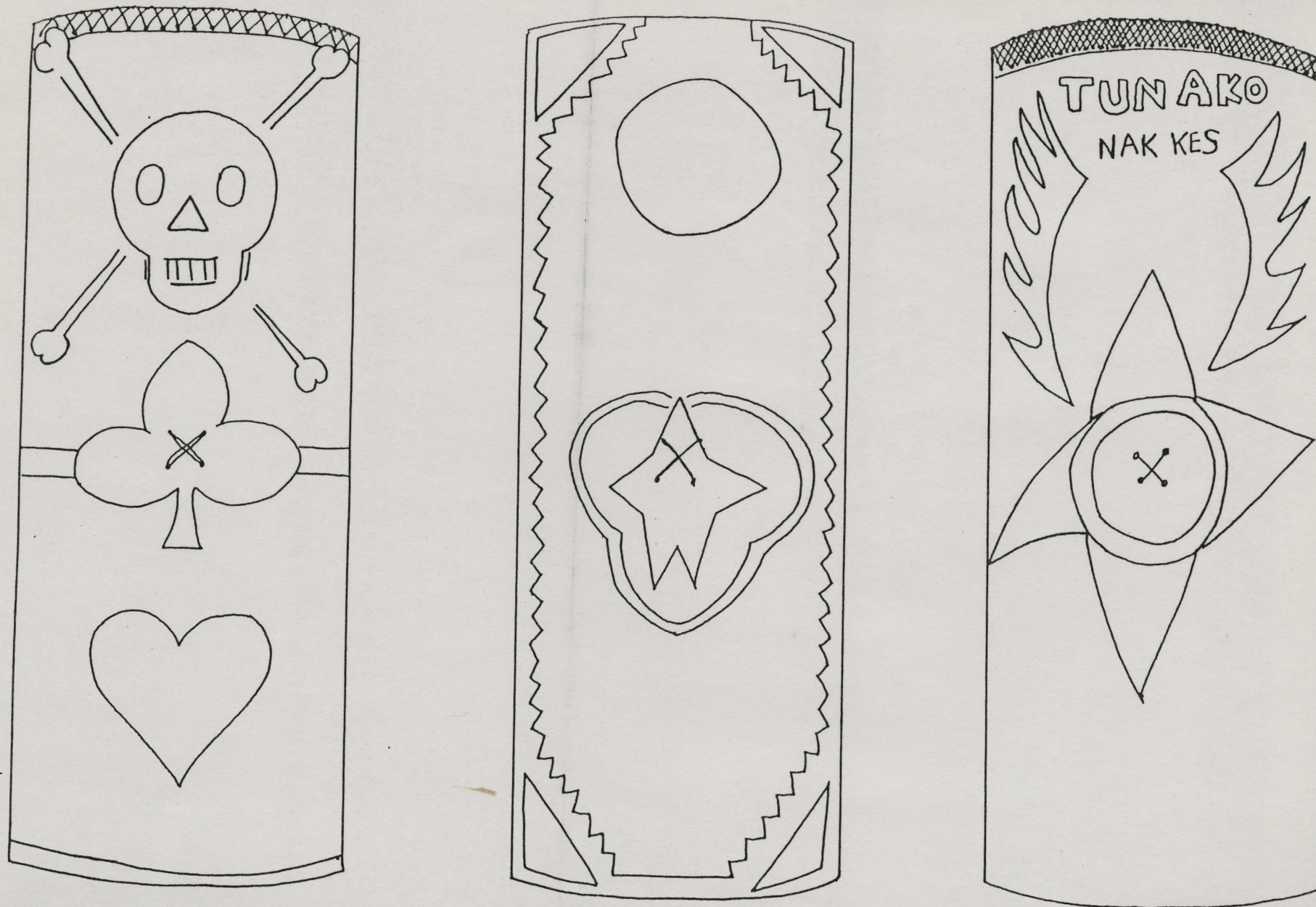
Figure 7.14. Shield designs with modern themes (Phantom Skull and gambling card designs) from the Konombka battlefields. (From left to right; B1/7, B1/8 and B1/9).

which is not demonstrated in the quantitative analysis is that the less frequently occurring colours often provide the clues to the composition of the fighting forces, for example the Green used by the Ngok Kanem and Tau Kanem (Chapter 8).

In addition to this analysis, I draw attention to the function of the wooden shields as seen by the people themselves. The relationship between public confession and the qualitative evaluations of the war historians shows that the shields are meant to interact between the persons and their gods. Changes in the designs and colours of the shields are done in accordance with the moral debates and in the context of the structured war language (Plate 11 and Chapter 8).

The shields are symbols of identity and they demonstrate the actual combat formation. Often the frontline shield carriers share the same paints but not necessarily the same designs. In most instances, between 3 to 6 shields may share the same colour combinations and this defines the size of the fighting force *(opo kupan)*. But even with the fighting group none of the shields are identical (see for example Plates 7-10).

Therefore the shield is an object in which behind every shield is a producer who is also an artist and a warrior. The combination of a variety of roles in the making of the dual partnership between the carrier and the shield complicates any systematic typological classification. Even if shields were classified into various types based on the selection of the functional, technological and stylistic attributes, this academic exercise would rarely bring forth the social functions and the complex meanings the people themselves associate with this object .

The Konombka shields used in 1989 do contain a diverse range of information. In particular modern signs and symbols are used to convey various messages to the enemy and the spectators in the battlefields. One clear example is the inscription of the figures '707' and '505' (Shield No B1/12, B1/20 and B2/27). Sometimes the numbers 707 is translated in Tok Pidgin as 'Wantok Kaikai Wantok'; brother eats brother. Indeed the number seven is seen as a symbol of a hafted steel axe in a upright position. If this metaphor was to be translated in Wahgi language it would read: *angam angam dje bosbik*;

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brothers are cutting each other, and in the case of the Konombka and Kondika war it is described as *opo karai* (war of bird of paradise). Also the numbers 505 are seen as symbols for gun warfare. This number combination is meant to represent shot guns which load up to more than five rounds of cartridges. In fact the shield with the above numbers also had the words 'Fire', 'Fire' written on the exterior surface (Shield no B1/20).

Dates appear on the shield and this give an idea when the shields were painted. One of the Tangilka shields has the date 7/9/82 on it (Shield No. KA/21, Plate VI). Words are written on the surface. Some of them include 'Kona 2 Kona' (from one corner of the battlefield to the other, Shield No B3/11), 'Superman' (Shield No.B2/1) and 'Hero' (Shield No B1/7). They are associated with ideas of stardom. There are drawings of phantom skulls and human faces (Plate I).

The moral theme underlying these messages is the recognition of good and bad guys. Superman, Hero and Phantom Skulls represent good guys. These are the one who uphold the law and go out to punish the bad guys. Obviously these expressions are not entirely a new phenomenon, though the art that communicates to the audience is different. I have suggested that a warrior often goes into the battlefield knowing that he has confessed his sins and therefore in the eyes of his gods he is pure and holy. He upholds the good moral values of the society and goes there to punish the wrong doers if they failed to accept their responsibilities and seek redemption from the divine *Kipe*

It has also been noted that the shields are repainted and redesigned from time to time. Among the Tangil Kumu Kanem, I photographed two shields placed in front of the burial place of Pinge Alki killed in 1982 during the Tangilka and Kamblika war (Plates 13-14). Shield No. Ka 24a and No Ka 25 represent the designs and colour patterns as recorded in 1982. One is a *Kukumb* design with a *Korkanjip* on the *pipin* region and the other is a *Olge* design with a heart shape (copied from gambling cards) on the *pipin* region.

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In 1989, the shields were photographed again and dimensional attributes were measured. Shield No. Ka 12/b (ex - Ka/24a) had only received some colour alterations: a strip of yellow paint had been applied to the *Nginimb* design above the *dombil* and at the *pipin*. The other *Olge* shield (Ka/25), however, has been completly altered in color and design into a *Jerepere* (Ka/26 in Plate VII). Within the course of nine years two individuals within the same fighting force changed the style and colour of the shields.

Individual artistic variations occur regularly during periods of war. The shields from Gukmol and Paknga battlefield demonstrate the changing styles. Shield B2/16a is a *Kukump* which also has a *Kelnge Kambim* on the *pipin* and *Nginimb* on the *sipin*. On the 10th of September 1989 the shield colours were red and black. Two months later yellow was added to it (B2/16b). Shield B2/29 is an example of a *Mangak Tandkanem* design. It has a strip of *Kelnge Kambim* at the pipin and dombil. The *Kelnge Kambim* design was coloured red but sometime later it is was changed to black. Shield B2/30 is an example of *Korkanjip*. Shield B3/1 is an example of the *Olge* design and represents the Kalambe Kup shield colouring. Initially, the black colour was applied to the *sipin* and *pipin* but when the Kalambe Kup moved from Paknga to Gukmol battlefield, they applied white colour. The change was from black and green to white and green. I will mention the circumstances surrounding the repainting of the Kalambe Kup shields in the next chapter.

Conclusion

The analysis of the dimensional and stystlic attribues attempted to examine the form and the purpose of the wooden fighting shields. As regards the shape and size, it is concluded that the height of the shields corresponds more or less to the height of the individual owners and there are no stylistic differences in the manufactured products from different groups. The split hollowed shapes of the wood are influenced by technological processes and the shapes of the original timbers. The shields are carried in an upright

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positions in which the flexible shoulder straps are knotted so that shields are lifted approximately 20 centimetres above the ground. The shields extend up to 50 centimetres above the heads of the carriers. When the shape of the shields are viewed in plan they appear almost rectangular, and in section they are semi-circular. As it happens, this concavity obstructs about 50 % of the field of vision of the warrior. With the weight of the shield balanced on one shoulder, the shield carriers are virtually trapped behind these heavy and clumsy devices. This emphasis on the 'image' of the shield over its portability does actually limit the capacity of the fighter to inflict physical injury to the opponent.

In the battlefields the techniques of fighting also attempt to join the shields into a single entity (Plate 9 & Plate 10). A circular shield formation represents rituals of war death. A rectangle shield formation by the shield carriers in the battlefield represents battle victories, shield displays and performances to an audience (Plate 12). Triangles represent sharpness or pointed lines. Bamboo plants are the traditional knives and arrow points. The techniques of close fighting involve creating a cross by the spears. The spears are like the lines which form the cross on the bamboo leaf shield design. The cultural expectations of the wooden shields are that they will be used to 'erect a wall' (*kumbo gul esim*; they use the shields to erect a fence) in the battlefields. The literal meaning for the word for wooden shields is 'wall' *(kumbo)*. This does not refer to an individual object that a carrier uses to protect himself, but rather to the group of men who participate in the conduct of war. The individual shield, with its colors and designs, forms part of the symbolic - as much as material - wall that the Wahgi errects in the course of warfare (Plate 7 & Plate 8).

Chapter 8. Konombka and Kondika war.

Introduction

I return in this final chapter to the ethnography of warfare through a concrete example - that of the war between the Konombka and the Kondika in the Minj area in 1989-90 (Map IV). In this account we will encounter many of the terms and ideas that were discussed throughout this work. These will enable us to make better sense of this particular conflict, and this conflict will in turn demonstrate how such seemingly disparate ideas as the social landscape, the origin stories, the war marriages, the groups structure and the design and painting of wooden shields all interact into a rich and complex network of beliefs and practices called 'warfare'.

I have also been able to witness, during the Konombka Kondika war, a crucial transition in the history of Wahgi warfare: the introduction of firearms into the battlefield. The implication of this technological change are immense. For example, the guns used in combat transform what was the most striking and valued artefact of Wahgi warfare - the wooden fighting shield.- into an invisible and helpless object. Besides leading to a dramatic increase in the number of deaths, guns also risk bringing the Wahgi behaviour inside and outside the battlefield closer to the standards of the Western industrialised world.

But let me return to more traditional aspects of warfare through the example of a fish design widely used by the Pong Kup and Kamb Kanem of Konombka in their fight against Kondika.

In the discussion on the social landscape, I suggested that the groups that inhabited the grassland plateau of Minj after the initial movements along the Wahgi Valley died out or ceased to function as socio-political units. Among the groups that inhabited the Minj grassland were the Kambka and probably some segment of Pong Kup. It is possible that the decline in population and the eventual dispersal of the Kambka and other

Ka groups on the Minj grassland have been influenced by the Konombka and Kondika and that at some point in time Kondika participated in wars with these former groups. Whatever the historical relations, when the Kondika started the war with the Konombka, they declared that they would chase their enemies north of Minj township into the Wahgi River and the fish would eat the decaying corpses.

This war talk had a specific effect on the Pong Kup and Kamb Kanem pair, who are not strictly speaking Konombka. It is possible that there might be some concealed war talks that this pair held against the Kondika for causing the dispersal of the former Ka units of Minj grassland. Therefore Pong Kup and Kamb Kanem threw the war talk back at the Kondika: By adopting the fish symbol. It implies that a wrong thing existed with the Kondika, and that the gods of the Minj grassland were going to punish them. This is why four shields from the Gukmol battlefield have the fish symbol painted on them (Shields No B2/4 in Plate I, and No B2/35, No B2/40, B2/41) and this is why one of these shields has the word 'fish' and another has the expression 'I will eat the Wahgi' fish' (*Wagi pis nonal*; Shield No B2/21, also No B2/35).

The first war *(moss opo)* **1989-1990.** Most ethnographic descriptions suggest that almost every tribe or clan goes to war with those who share adjacent territories (Meggitt 1977, Rappaport 1968, Vayda 1989). However, the above account of the history of S. Wahgi warfare suggests that some groups who shared adjoining territories never fought against each other, at least as far back in time as can be traced in the origin stories (Appendix I).

The Konombka and Kondika did not fight against each other during the remembered period of history, until 1989 (Galinga T/T 1990, K. Waipek T/T 1990). They came out of the same 'base' and regarded themselves as 'brothers'. When the Konombka and the Kondika finally staged the battle in 1989, it was described to me that 'the wings of the bird of paradise split in half and they are fighting the *moss* war' (*karai bake dom moss opo esbik*). I present the Kum Kumai war and trace some aspects of the

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history of the war talks and how it influenced the war between the Kondika and Konombka. In 1981 an old war historian provided the following account of the history of the Kum Kumai war.

> The Kurup-Pingka fought. I could narrate the talk but we do not know who was the 'fight root man'. We do not know whether it was Kugika, Konombka or Kondika. When Kugika fought with Konombka, they were chased out of their territory. Now the Kondika killed Kuma Gal. We planned to go to war but we do not want to become the principal fight partners of Kondika. We are waiting for Kondika to fight with someone else. We will not start the war and we have buried Gal without a war. Therefore, I will not tell you the talk as I do not know who were the fight root men. You will carry this talk in the tape; the Kugika and Kondika are going to listen to this talk. There are a lot of people where you are working and the word will spread out. I do not want them to hear it (Waipek Kuma 1982, T/T 1990).

The oral historian Waipek is among elders regarded as those with 'strong thoughts'. He is the knowledge keeper of the clan history. The objective was to draw attention to the records of concealed war talks. In line with the general chronology, the preservation of the above concealed information goes back to the period of the initial settlement, expansion and emergence of the Ka units of the Kuma group.

The above account reflects the historical relationships between the Kugika, Kondika and Konombka who shared adjoining territories. The Kugika fought against the Konombka after the Kum Kumai war. The Kugika sought refugee in N. Wahgi and migrated to as far as Jimi region. The Konombka's divine justification for expelling the Kugika from their *Omb kone* was based on two historical relations. First the Kugika are classified as 'sister's children' (*amp ngaakim*) of the Kuma groups. The power of reasoning worked for the Konombka. The Kugika was the Kuma's *amp ampanjip ngaakim* and therefore the Konombka were root people or sister's brothers. Kugika had a moral debit to the Kuma for obtaining the *minmaan* substance. Any attempts by Kugika to fight against the other Kuma groups would be regarded as self betrayal or stated as 'you uproot your own base' (*pa won kone pulum akronin*). The Konombka's justification for chasing the Kugika out of their territory would relate to the curse of mother's brother's group (*Kipe sim*). In other words, a group that is a transplant of

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another group which wages war against its own source often ends up abandoning it own territory (*wandilim*).

Second, Konombka concealed a wrong practice by the Kugika and Kondika during the Kum Kumai war. It seems that among the Kugika, Konombka and Kondika whoever assumed the responsibility of the 'fight root men' was not the formally recognised group. Waipek knew who was responsible but I was not the right person to have access to that source of knowledge. A tape recorded statement could be replayed to the Kondika and Kugika.

In the prehistoric war, it was up to the Kugika to straighten the talk and enjoy growth, health and group expansion. But they did not confessed the underlying cause of the war. It was Kugika's own sins that led to the defeat and migration. The Kondika and Konombka were allies for more than most of the remembered period of history. When the hostility and tension increased during the post contact (1933) and post independence period (1975) the Konombka wanted to contest the moral conditions of the Kondika. The wrongdoings created during this prehistoric war were not restored in subsequent relations between the three Kuma groups. To them the Kondika was equally at fault as the Kugika for the first sequence of war which led to the migration of the Kurupka, Maiamka, Nene Taka and Owika. The Konombka felt that they were in a dominant position and with divine guidance from the *Kipe*, they were going to punish the Kondika. Equally, Kondika would have concealed other moral wrong doings of the Konombka.

Planning the war, 1970 - 1989. More than two decades ago, the Konombka and Kondika went through the stages of war preparation discussed in Chapter 2. The interview with Waipek in the early 1980s highlights the increasing hostility between the two potential fight partners. Planning involves a number of aspects. The primary ideas about war relate to the language of the 'war talks'. Opponent groups conceal the weakness or moral disorder of the individuals within the groups. These talks become the source of moral assessment of shield displays, public performances, victory and defeats.

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Within this framework, there are specific military strategies, tactics and a long process of a sophisticated pattern of decision-making. Any formal combat between two protagonists involves the assessment of the fertile land available in the marginal zones of the battlefields, which would be able hold a population during a prolonged war. The natural food resources which will provide immediate relief if a defeat is imminent necessitates a careful timing and management of nut bearing crops such as the pandanus nut trees in the high altitude valleys. In the case of a symbolic defeat, the socio-political unit takes into account how population at the minimal social grouping below the Kanem sequences (*kopam-kambin*) are to be dispersed into regions outside the immediate boundaries of friendly relations (*opo kaijen*).

These considerations are dependent on pre-war social ceremonies and include reduction of excessive animal population, completion bride wealth transactions, restoration credit/debt relations and payments to war allies for potential moral assistance. Some amount of wealth, specifically pigs, are kept to conduct war rituals and to make payments to the 'root people' (*akamp pulum*) of the deceased warrior if there is a demand. Battlefields are also negotiated during the preparation of a war. The following discussion expands on circumstances surrounding the war and the organisation of the battlefields.

The root cause of the war. The causes of warfare in the ethnographic descriptions include thefts, adultery, homicide and rapes. Additional factors are vehicle accidents and drunken brawls. The incident that provoked the Konombka and Kondika war directly links to homicide revenge. The two groups started their war by murdering some of their respective men outside the battlefield. The particular incidents appear to have been well planned (to 'cause trouble') and both groups expected that the trouble root man would initiate the war in one form or the other. Any cause could have been used as an excuse to stage a war. Among the S. Wahgi, killing someone outside formally declared wars and away from the battlefields is described as 'they steal the people and kill

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them' (*akamp kunum toem*). It is a form of betrayal and the consequences involve the introduction of permanent hostility between the opposite fight partners. The Tangilka and Kamblika war, for example, was started by killings outside the battlefield, and has been going on since the mid 1800s (see Figure 4.1).

I will draw on Waipek's account to demonstrate the social context in which certain historical practices are linked to the organisation of contemporary warfare. It is apparent that at the time of the killing of Kuma Gal by the Kondika, the Konombka were not provoked into response. They felt that an immediate revenge obligation was not possible and the decision to defer any direct confrontation with Kondika is morally justified in the following statement.

> The mens' (*yi komb*; meaning Konombka men) experience of war has been with the Kugika and Neneka. They fought with the Berepka and died. They killed some from Deimanka. Now they must not initiate the war. The Kondika will stay and fight with someone else (W. Kuma 1982, T/T 1990).

The justification is that the Konombka had initiated too many wars and fought with many of the neighbouring groups. They were not prepared to fight with the Kondika. The above statement relates to the cover up on the root cause of the Kum Kumai war. A direct confrontation between the 'true Kuma' (Kondika and Konombka) may result in the 'war of the bird of paradise'; similar to the initiation of Kum Kumai war. There are some Kanem groups of the Kondika and Konombka who are by virtue of birth descended from the same parents (Akmaagk & Minjsmaam, see appendix I). Therefore they share the *minmaan* substances.

The ability to avoid direct confrontation for most part of the known history meant that the Kuma brother groups shared a lot of war secrets. There were many historic war statements in which the Kondika and Konombka pledged not to become opposite fight partners. The oral accounts are symbolically represented by material objects such as the burial of stones at a battlefield and decorated with culturally important plants. To start a war implied that Kondika and Konombka had to cut all the 'connections' that were maintained throughout the remembered history. It meant that they had to revise all the

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historical war talks and uproot all the symbolic plants as an indication that the connections were formally terminated. The moral conditions that were at stake were too high for the two Kuma groups. At least for Konombka, the death of Kuma Gal did not provide the legitimate divine justification to attack the Kondika.

Kuma Gal was killed in the early 1980s and as Waipek indicates, the Konombka allowed Kondika to get away with 'murder' but only to a certain level. The 'trouble' which would lead to a formal war had to start with a sub group of the Konombka which did not directly inherit the common *minmaan* substances from the single founding population (see Figure 6.7). Ideally, it would have to be Kalambe Kup or Pong Kup, or any other *wandilim* group incorporated into the Konombka. Konombka waited for Kondika to choose the 'right fight root man' and this resulted in the delay of the war for eight years after I have recorded the intentions of the Konombka.

During the recent fieldwork (1988-1990) the speculations about the long waited war intensified. It led to a number of pre-emptive attacks initiated by the young men from the two groups during occasions such as drunken brawls and rugby football matches. The weapons were limited to stones and sticks. The inhibiting factor was that when it came down to staging a proper war, the individual actions could not be translated into the social categories of war partnerships described earlier. That is the individual trouble root persons did not represent or obtain the approval of the fighting force which was to be assigned the status of the 'fight root man'.

By the beginning of 1989, the production of weapons increased. Wooden fighting shields were painted and new ones were produced. There were speculations about gun warfare and many were seeking ways of obtaining illegal firearms. In July, a fight broke out between a Kondi Wimanjs Kanem and Konomb Pong Kup. The Pong Kup was taken to hospital and released, but he died a few weeks later. The circumstances surrounding the death are unclear, and the war debates between the Kondika and Konombka are noted here.

The Wimanjs Kanem's sister married the Pong Kup. She was sick for a long time. The Pong Kup husband is said to have had extra martial affair and neglected his wife. Her brother thought that his sister was being deliberately ignored so that she would die and the husband could marry another woman. When he visited his sister, the Wimanjs Kanem influenced by her sympathy talk and assaulted the Pong Kup. The victim immediately felt ill and was rushed to the hospital. While he received medical treatment the Konombka discussed the issue and released a number of carefully concealed war talks to the Kondika. In one of the statements, they reminded the Kondika that Kuma Gal was killed and Konombka refused to go to war with the Kondika. Now Kondika assaulted another Konombka. If he died the Kondika would be held responsible. However, it is also claimed that the Pong Kup had been sick and he was taken to Kudjip hospital before the fight between the two brother inlaws.

A few weeks later the Pong Kup was released from the hospital. The Konombka took the issue further and demanded compensation from the Kondika. They requested PNG K10,000 cash money, 30 pigs and some cassowary birds. The Kondika denied that they had anything to do with him. They argued that he was a sick man and had been hospitalised a number of times, and they paid PNG K4,000 and 10 pigs as compensation.

Despite the peace-negotiation through compensation payments, the possibility of intensified by two forms of wealth reducing ceremonies. The first exercise was the increase in bride wealth ceremonies. Concerned parents realised that a war would impose many restrictions and the wealth accumulated for other reasons would be committed to social practices central to warfare. Also a large amount of food had to be prepared for the visitors who acted as supporters, spectators and messengers in the battlefields. A time of war is considered as a time of hunger. Gardens are left unattended and the available food is directed towards feeding a population larger than the fighting force itself. Excessive amounts of animals would give extra burden. The objective was to reduce the excess wealth to manageable proportion.

Second, the Konombka announced that they were going ahead with the termination ceremony for their previous war with the Nene Muruka and Kusilka. The killing of pigs during this occasion is known as 'pigs for the bows and wooden fighting shields' (Stage 4.1, Chapter 2). This is a metaphorical expression and does not mean that the shields are displayed to an audience, rather it is a formal conclusion of the war. This ceremony had a number of objectives; (a) to formally terminate their fighting partnership with the Nene groups and ensure that they did not support the Kondika, (b) to make reparation payments for previous support obtained from their allies such as Tangilka, Kopanka, Tuimekup and Golikup and secure further assistance and (c) to serve as a preliminary occasion for pre-war public appearance, which is referred to as 'he will pull the pig's spear' (*kong kuga ngunts ja*). The qualitative statements provided by the spectators would predict the outcome of a potential war.

If the display was good the Konombka would go ahead and start the war. If the spectators claimed that the display was bad, the Konombka would adopt a wait-and-see position. They would expect the Kondika to initiate the war. The overall impression was that the Konombka was on the war path and they would fight against the Kondika the day after the completion of the ceremony. However, the Nene Muruka and Kusilka intervened and pleaded the two groups not to go to war until after they as opposite fight partners of the Konombka finished their pigs for the bows and wooden shield ceremony. The fight was delayed for another two weeks. After the Nene Kusilka and Muruka completed the distribution of the pork meat the fight was started within a day.

When the Pong Kup man died the body was taken up to the headwaters of Minj. He was buried at Ngunba. After the funeral ceremony Konombka planned and approved the victim's group to kill any Kondika who walked pass the burial place. On the 10th of September 1989, a Wimanjs Kanem of Kondika went beyond the restricted zone at Ngunba. When he returned in the afternoon the Konombka killed him. As expected, the Pong Kup assumed the responsibilities of the fight root man. Five hours later Kondika raided an isolated house near the Gukmol battlefield. The occupants were an old man and

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his grand children. The children escaped and the old man was killed. Next day the long awaited Konombka and Kondika war started.

Fighting forces.

The fighting forces of both Konombka and Kondika split themselves into opposing fight partners along the Kanem level and distributed themselves among four battlefields (Gabnal, Gukmol, Paknga and Dama). These battlefields were created before actual confrontation. Every subclan (nine Kanem) of the Konombka shared the responsibilities to fight along their own boundaries (*opo pen*; battle space) with the Kondika. The Kondika anticipated the battles routes and matched their four subclans (Kisu Kanem, Wimanjs Kanem, Jimale Kanem and Mandpa Kanem) with the Konombka.

Konombka. The entire Konombka fighting force came from the 10 Kanem groups and this roughly equals 10 fight bundles made up of 2000 able fighting men out of a population of 4100 persons. Detail information on the shield carrier category among the Kalambe Kup and Tau Kanem was collected. The Kalambe Kup fighting force consisted of 10 shield carriers and more than 30 arrow men out of a population of 415 persons. It is suggested that less than 5% of the Kalambe Kup are able warriors who participated as a single fight bundle. The Tau Kanem had a total of 15 shields with a population of 490 persons. The Tau Kanem shield carriers represent no more than 4 % of the total population. The estimates from the other groups are less reliable. However the figure of 5% as the average fighting force per Kanem unit is supported by data collected from the Tangilka.

Kanem Unit	Population	No.of Shield Carriers	Percent. Kanem unit
Kumu Kanem	400	16	4%
Kombok Kanem	350	13	3.70%
Pingka	350	14	3.90%
Total	1100	43	

Table 8.1. Number of shield carriers among the Dambnge Tangilka.

My estimate based from the above figures is that there are approximately 15 shield carriers per Kanem unit. The number of arrow men double the shield carriers but estimated to be no more than 50 able men. Notably one of the underlying principles of S. Wahgi war is that there are relatively few number of shield carriers per fighting force. From the available data it is argued that there are no more than 5% shield men per Kanem group and an estimated 40 - 50 shields per 1000 people.

Kondika. The Kondika has a population of 2100 persons. There are two Dambnge migrant units incorporated into the Kondika. The size of the Dambnge Tungka and Ta Kup is unclear but both of them function along the second order Kanem sequence and it is possible to suggests that the population size is no more than 100 - 150 persons per group. The distribution of the population along the four Kanem sequences of the Kondika is unavailable. However, according to the square principle of segmentary division, the equal distribution within the four 'squares' would absorb on average 500 persons per Kanem unit. The Kondika had a military force of 500 - 1000 men. The fight bundle units would consist of no more than 700 men spread along the four Kanem units. The fight force was only half the total of Konombka (6 *opo kupan*). It is likely that the Takup and Tungka fought as independent units. These figures suggest that the Konombka were 'numerically superior' than the Kondika (but see discussion later).

Generally speaking the distribution of the Konombka Kanem units per battlefield is twice as much as that of the Kondika. The Ngok Kanem and Tau Kanem at Bala

number more than 1000 persons. The Kanem populations at Gukmol also reach a 1000 persons. The entire population of Kalambe Kup along with the other Kuse Kup groups at Paknga would number approximately a 1000 persons. There would be approximately 1000 persons at the head waters of Minj. In contrast, the four Kanem groups of the Kondika with approximately 500 persons per group were fighting in all of the battlefields.

Battlefields

Most wars are conducted along well established traditional fight routes. The battlefields are strategically visible and often located along the ridge tops. Others are situated in locations where the central activities - namely the public performances - are visible to spectators from a long distance. The social significance of the battle fields is the same as the ceremonial grounds (Strathern 1971, O'Hanlon 1989). Normally the open ground is divided into a number zones. Each zone has a specific function. There are scout houses at the end of a battlefield known as the 'house where we wait for the fight' *(opo kui gar)*. The mens houses are also located at the end of a battle route. The battle path often forms the frontier region of a territory and the fight leads to a number of sacred sites such as the communal burial, ancestral sites and menshouses. The enclosed areas are not normally accessible to spectators as they may be potential spies. I regard them as sacred zones as opposed to the open fields where the shields are publicly displayed to an audience.

The pre-fight ceremonies are conducted in the enclosed zone. Warriors will come out from the private area to display the shields to the opponents. In the past the zone would contain the scared 'fight eye house' and 'the men head house'. However, these houses were considered as part of the worship of the evil spirits and the early missionaries conducted a mass destruction of all the available round houses in the entire S. Wahgi region (see Lutzbetak 1956). The division between the the private and public
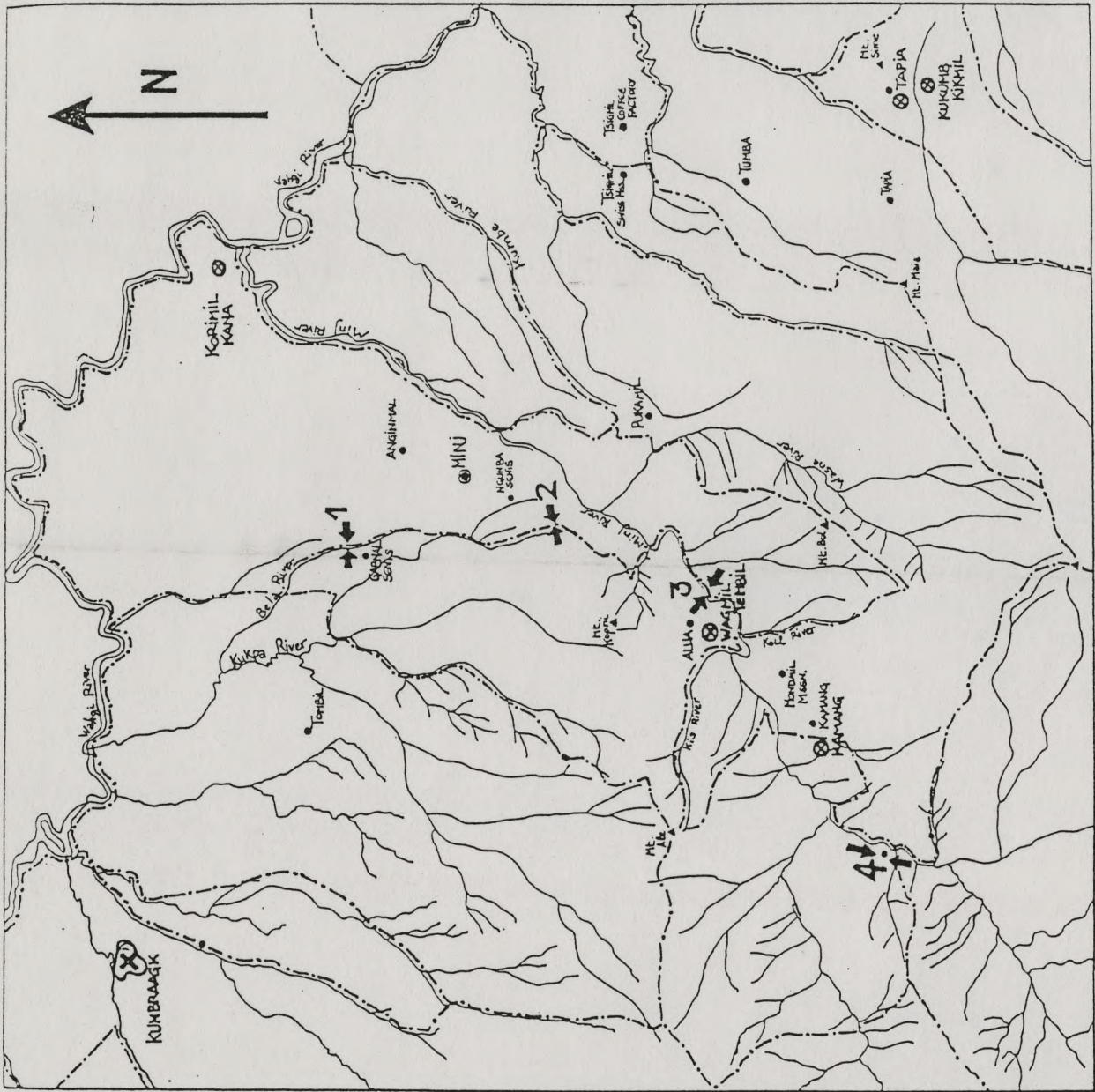
Map IV. Map of the Minj area, showing the ancestral sites and the location of the battlefields between Konombka and Kondika (1989-1990) (Modified after Burton 1987).

war zones are extended symbolic structures like the abandoned churches, schools and access to main roads. They are used as the meeting places and symbolic boundaries for assessing defeats and victories in wars.

As already mentioned, formal wars are normally fought in established battlefields, and warriors should be killed only during physical combat in these designated fight paths. Killing outside the traditional battlefield was regarded as murder (*kapil toem*). Raids and ambush are not allowed. If a warring faction is virtually surrounded by the opponent, the enemy will allow the defeated group to use escape routes that cut across the enemy territory. Ritual taboos formally cut all personal ties with the opponent but behind this image, the 'women bearing' and 'men bearing' from both sides did act as spies, betrayers and messengers. O'Hanlon (1989) gives an excellent account of the Wahgi philosophy of betrayal and the rites of public confession.

The traditional battle zones are part of the general territorial classification and allocation of space for various purposes. The fight path leads to the interior central activity places. These include ceremonial grounds, ancestor worship places, sacred sites for conducting warfare, burial places and men's houses. Once the advancing group reaches a certain symbolic boundary determined by any one of these features, the retreating group acknowledges a defeat known as 'we give our domestic environment to the opponents' (*opo ond wi tongom)*. The war formally ends and the withdrawing group allows the advancing group to systematically destroy the domestic environment (*Omb kone*; Chapter 2, and Plate 27). After this formal announcement of a defeat no wars were staged. It is known as *yi gul esim* (fencing the men; causalities and injures are kept to the minimal). A third party, normally a neutral group, erected the taboo substances on the battle fields. This follows the peace ceremony in an attempt to neutralise the taboos which continues between the warring units after physical engagement is terminated. When the fire taboo rules are neutralised the opposite fight partner groups returned to relationships that are dominated by peace ceremonies in the form of reparation payments and compensations.

Although the brother groups fought in the designated battlefields some of the conventions applicable to shadow brother groups were not followed. The initiation of the Konombka and Kondika war is classified as murder but as I indicated, they are brother groups and have been planning to go to war for the first time in their history. Both groups expected that such extreme action was possible. The various battlefields of the Konombka and Kondika, and the events that occurred in them, are discussed below (see map IV for their location). In later sections I will pay particular attention to the Gukmol - Kopni ridge battle.

Bala and Gabnal battle route. The Bala and Gabnal battlefield is on a flatland near the Minj Catholic mission station. The battle zone is not a traditional one. The current population of the Minj-Gun grassland (*Kul aak*) migrated from the *Omb kone* after the establishment of the Minj District head quarters (Plate 1). It was noted that the owners of the area have died out. These include Minjnge, Wigal, Traune, Mong, Openjs and Singa. Other owners of the Minj region which are incorporated into major Ka units include Kampka, Koi-mangka, Kuka, Karuka and Balka (see Burton 1987).

The border between the Kondika and Konombka was shared by the Tau Kanem and Ngok Kanem of Konombka and Mandpa Kanem of Kondika. The combined population of Ngok Kanem and Tau Kanem reaches more than 1300 persons. The Ngok Kanem number around 800 persons and they fought in all the battlefields. The Ngok Kanem and Tau Kanem's traditional battlefield is at Kamang. The bulk of the Tau Kanem shields were stored in their central war making zone at Kamang. The Ngok Kanem and Tau Kanem that lived at Kamang did not come down to Minj until after the three battlefields along the Minj River were closed. They guarded the Kamang ceremonial site. A group of Chimbu migrants who live on the Konombka territory joined with the Tau Kanem and called themselves Tau Kanem No 2. Their fighting force was made up of three shield carriers and a handful of arrow men.

Over the course of three weeks of fighting in Bala, I recorded 22 wooden shields. The bulk of these shields were from Tau Kanem. According to colour codes the Tau Kanem fighting force is divided into three units. One fight bundle consist of nine shields (Shield No B1/1-B1/9). The colour preference was white, brown yellow and black. The colour that distinguish the Tau Kanem shields is brown and yellow. The second fight bundle is from the Chimbu migrants. The colour is a combination of red, white, black and blue (Shield No B1/11-B/13). The fighting force from Chimbu share the blue colour with one second order Tau Kanem unit. It suggests that the two groups join as a single force in display and performance but maintain a division as two separate fight bundles in close combat fighting. The third fighting force from the Tau Kanem painted their shields white, black and brown (Shield No B1/14-B1/19). The common colour used by the Tau Kanem at Bala is brown. The designs of the shields shows that Tau Kanem fighting forces were recruited from the second order Kanem groups. Tau Kanem has a population of approximately 490 persons divided into two Kanem units; Tau Guil Kanem and Dambe Kanem (see Figure 6.7). The Chimbu migrants who were granted cultivation rights, formed a third force and fought along with the Tau Kanem.

In contrast, during the 1987 war between the Konombka and Kondika, the Tau Kanem paired with the Ngok Kanem at Kamang battlefield. The shields from the Tau Kanem and Ngok Kanem I recorded at Kamang in 1987 did not appear in at Bala battlefield in 1989. It is argued that the shields from Kamang were not transported to Bala. At Kamang some of the distinguishing colour of Tau Kanem shields were a combination of blue, red and green (Shield B5/10-B2/12, plate III). Blue was the predominant colour where as green symbolised the shields from Ngok Kanem (e.g. Shield No B5/7-B5/9).

It should be noted that during the first day of the battle, the Ngok Kanem and Tau Kanem did not have more than five shields. The scarcity of wooden fighting shields of the Tau Kanem put them in a vulnerable position and, since the Kondika's territory cut across the access routes into the Minj River Valley, they were forced to abandon the

shields stored at their ancestral battlefield at Kamang. As a result the Tau Kanem purchased 6 shields from the Beiman people of North Wahgi. Such practices would have been unthinkable in pre-contact wars.

The battle at Bala and Gabnal lasted for three weeks. The Ngok Kanem and Tau Kanem of the Minj grassland defeated the Kondika Mandpa Kanem. They systematically destroyed Gabnal Senis Village including part of the area of the Catholic mission. The Mandpa Kanem did not destroy any of the Konombka settlement area but took revenge by destroying Ngunba Senis, below the slopes of Gukmol. After the destruction of Gabnal, the battlefield was closed and the fighting forces moved on to Gukmol:Kopni ridge. There were a number of wounded but no one was killed on either side. It was considered as a clean fight. However after the use of fire arms, a Tau Kanem leader was shot dead. This was in response to a Kondika primary school teacher killed at Gukmol.

Paknga and Alua battle route. Paknga Baril is the ancestral settlement site of the Kalambe Kup. It was noted in the Minjnge origin story that when the major fight between the brother groups, Minjnge and Singa broke out, the Minjnge people were assisted by the Konombka. The two war allies dispersed the Singa people. A sister of Konombka who married to Singa group was brought back after the war. She lived at Paknga Baril and she is the ancestress of the Kalambe Kup. They are related to the Konombka as *apanjip* (mother's brothers).

The Ngok Kanem and Pipi Kanem also share adjacent territory. The Pipi Kanem are often paired with Tause Kanem. The total population of the pair units is approximately 1000 persons. Pipi Kanem would be larger than Tause Kanem because it has progressed into a second order division into Gapam units. The Pipi Kanem population is around 600-700 persons. There would be two major fighting forces. One from the Kumnge Kanem and the other from the Enduk Kanem. Under the Enduk Kanem the fighting forces would be divided into Kunangil and Aku Gapam. The Kunangil Gapam of Pipi Kanem spread their homesteads all around Galing Teng. The

Ngok Kanem settle at Minimb Konmil. Konmil is recognised as an important Konombka ancestral pig kill ceremonial site.

Since the Ngok Kanem and Pipi Kanem territory runs along the frontier region with the Kondika and located between two battle zones, the fighting forces would be under constant pressure to act as the owners of the frontier regions, and to participate in most of the battles. One reason is that if a battle plan goes wrong or if a defeat is possible, those groups which do not share a boundary with the opposite fighting partner will accuse the battlefield owners of being too friendly with the enemy during pre-war times and for revealing the war talk. The Kanem groups who own the frontier regions have to make sure that their performances do not reveal any signs of weakness which would be read by the other fight partner as betrayal.

The fight lasted for three weeks. The above groups penetrated deep into the Kondika heartland and destroyed the Alua *Omb kone*. Kondika lost two men. Both of them were killed during close combat shield fighting. On the Konombka side, a Beiman (North Wahgi) young man who assisted the Pipi Kanem sustained an arrow wound in his eye and died. The battlefield was closed after the Konombka destroyed Alua, and after the Kondika introduced firearms into the war.

There were 30 wooden shields involved in the battle; 20 to the Pipi Kanem and Ngok Kanem, and 10 to the Kalambe Kup. One fighting force of the Kalambe Kup painted their shield red, green and black with slight touch of white (B3/1-B3/5). The other fighting force used a combination of red, black and white (B3/6-B3/11). The first group change colours by applying more white on the surface when the Paknga battlefield was closed and they regrouped with the other Kanem groups at Gukmol. A large number of the shields were photographed in black and white colour (B2/18-B2/34). It makes it difficult to distinguish the colour codes that Pipi Kanem and Ngok Kanem groups at Paknga and Gukmol. They are the largest Kanem groups among the Konombka and the fighting forces were distributed among the four battlefields. Some of the shields of the Pipi Kanem show a colour combination of red, white black, yellow and brown. The

brown colour with a combination of red, white and black were used at Paknga (B3/9, B3/12, B3/13). Whereas, red, black and yellow or blue combinations may overlap with the fighting forces at Gukmol (B3/10, B3/14).

Tumbang and Dama battle route. Limited information is available on the intensity and magnitude of the war on the head waters of Minj. The combined Konombka fighting force routed the Kondika living around the vicinity of Tumbang. Within three weeks the fight came to an end. No deaths were recorded in this battle, except for two Kondika warriors who were killed at Kamang after a surprise attack on the Tau Kanem and Ngok Kanem went wrong.

Kamang. Kamang is often known as the 'open space for the pig houses' (*kong gar pen*). The Kamang ceremonial site is owned by the Konombka, Tangilka, Tuimekup and Golikup. It implies that when the Tangilka, Tuimekup and Golikup were living as war migrants they conducted the pig kill ceremonies along with the Konombka at Minimb Konmil, Paknga Baril, Kamang, Tumbang, Dama and Ngunba. When an opposite fight partner attempted to destroy the *Omb kone* and pig kill site in the above regions, it did not only confront the Konombka but the scale of the battles would extend to include the Tangilka, Tuimekup and Golikup.

During the historic war between the Aklimka and Konombka, the latter group was forced into the head waters of Minj. When Aklimka reached Kamang they ring barked the Kamang ancestral trees and chopped the Kamang *Kunik* vine. They set fire to the ancestral site. This action provoked the Konombka to declare all out war with the Aklimka. The Aklimka were dispersed and do not function as a political unit. They reached the *gok burbe arbe* status. Under similar circumstances, the Nene penetrated the sacred site and ring barked some of the trees in 1987. The Konombka came out in anger and captured two Neneka warriors. They mutilated their bodies.

The Kondika and Konombka could not create a battlefield in Kamang because the common boundaries run through the Nene Kusilka territory. The latter group was reluctant to open its territory. Kamang is the major battlefield between the Konombka and the Nene Kusilka. The war between the two groups was conducted at Kamang. In 1987 I recorded more than 30 wooden fighting shields of the Konombka. All of them were photographed and were analysed in the previous chapter.

After Kondika lost a couple of men along the Alua battle route, it set out a surprise attack on the segment of Konombka living at Kamang. The Ngok Kanem and Tau Kanem anticipated Kondika's intentions. The Kondika's ambush plan went wrong and Konombka killed two men. The Kamang battlefield was closed after this single encounter.

The Konombka destroyed most of the *Omb kone* and central war zones of the Kondika at Gabnal (1), Alua (3), Tumbang (4) and Kamang. Six weeks after the war commenced these battlefields were formally closed. The combined forces of the two groups concentrated on the battle route along the Kopni and Gukmol ridges above the Minj township. The ethnographic observations of the conduct of war was carried out from the Konombka side of the battlefield. Some of my observations are described against the background of various discussions such as the war making units, the territorial gains and defeats, battle causalities and the actual combats.

The fight for Gukmol and Kopni Ridges - an ethnography

The battle along the Gukmol and Kopni ridges lasted four months. The route is the major geographical feature that visibly marks the boundary between the *Omb kone* of the groups occupying the Minj River Valley and the grass land north of the current location of the Minj township, towards the Wahgi Valley. Prior to western contact, the population of the head waters of Minj came as far as Gukmol and used the grassland as 'pig foraging zone'.

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The Konombka informants suggested the two ridge tops on the Konombka side of the battle zone were formerly used to build fight eye houses and mens' houses. The establishment of the villages on the footslopes of the Wahgi Valley was a response to the periodic organisation of the pig kill ceremonies. The objective was to raise pigs in the flatland. Once the pigs were fattened and ready for the ceremonies, the villages were moved to the *Omb kone* near the main ceremonial grounds.

These abandoned sites at Gukmol were covered with bamboo plants, different coloured specimens of cordlyine plants and exotic trees rarely found in the grassland regions (Plates 25 & 26). The general plan of the artificial vegetation coverage represents defense enclosures. The symbolic importance of the Gukmol battle route associates with the history of war talks. Informants claimed that the Konombka and Kondika exchanged war talks to cooperate and use the 'wooden shields to fence the Gukmol ridge against invaders' (*opo kumbo gul er yi kapil to ori kerambik*, T. Dupre 1987, 1989, T/T 1990). Any groups that passed beyond the Gukmol ridge and invade the Minj River Valley would face the combined Kondika and Konombka fighting force.

Some of the inhabitants of the flatland were driven out by the combined forces of the Kondika and Konombka during pre-contact time. In fact, the Gukmol region was formerly occupied by the Aklimka. After Aklimka destroyed the Kamang ceremonial site, the Konombka, Kondika and Ta Kup drove them out of their *Omb kone* along the Gukmol region. The Aklimka joined the N. Muruka , and they lost their political autonomy at the Ka level. The vacant land was distributed among the three groups (Taka 1989, T/T Ger Taka 1990).

We recall that when a war talk is released by autonomous *yi doogum* units, the potential opposite fight partners assess the contents of the oratorical speeches. If the group feels that the statement has been delivered on purpose, the words of the other groups are converted into concealed war talks and are represented by material symbols. These records are stored in many ways. Among them is the planting of symbolic plants

along the battle routes. The Gukmol ridge is saturated with the physical evidence of past war talks.

In one instance, the ancestors Konombka and Kondika swore an oath not to fight against each other by exchanging stones representing major Kanem units who witnessed the ceremony. These stones were touched by the representatives and taken to their respective sacred sites. They were buried and culturally important plants were cultivated above the sites. The war historians narrated the accounts and passed on the information to their successors. The next generation of war historians were advised that in the event of a war, the plants must be uprooted and the stone object or other material objects they fought must be destroyed. I have recorded many cases among the Tangilka including the preservation of the skulls of warriors that were killed outside the battlefields. The locations of the sites and the distribution of the material objects within a Kanem's territory were given in confidence. The Konombka informants indicated that the war between Konombka and Kondika will not end within the next five years and advised me not to document some of the rites.

By comparison, I witnessed a similar ceremony among the Minimbi and Remndi people of North Hagen region. The two groups made a peace truce by swearing on the material objects. The Minimbi gave stone objects to the Remndi. Whereas the Remndi gave in return cordlyine plants and also a tree called *wantip*. When I asked them about the significance of the objects, they replied that these objects were *mi melt* (taboo substances). As long as they kept the taboo substances, the opposite fight partners would not conduct a war. Obviously, the underlying logic is that the group that starts the war is betraying itself. The fault is with them and the objects that are in the enemy territory will be used as the source of divine power to impose a moral defeat. The gods will punish those who do the wrong things.

In this line of argument, the Gukmol and Kopni ridges were archaeological landscapes reminding the Konombka and Kondika of the three hundred years of peaceful existence. The war historians were able to demonstrate the purpose of the tree here or a

shrub there and why these things were placed in these strategic locations. The Kopni and Gukmol battlefields contain many of the plants that represented the political diplomacy between the ancestors of Konombka and Kondika during the remembered period of history. The conduct of war was influenced by the interactions between the things on the landscape, the ideas that associated with this things and how these two elements were combined and contrasted within the ideology of pairing entities; gain:loss of territory, defeats:victory, order:disorder and so forth. The symbolic victory or defeat between the two groups depended on the successful shield maneouvring along the entire length of the Gukmol and Kopni ridge. The winner of the battlefield would be a group that (a) was able to gain a few metres of battlefield space during every close combat, (b) defended its own symbolic zone that would be used as the outer boundary for declaring a defeat and (c) reach the opponents' zone without heavy causalities.

The Gukmol and Kopni battle routes. At Gukmol battlefield the Konombka fighting forces were recruited from the segments of Gaime Kanem (530), Anjspa Kanem (270), Pong Kup (320), Kamp Kanem (320), and Tause Kanem (300). It has been demonstrated that all the Kanem units, except Kalambe Kup, were distributed throughout the entire Konombka territory. The total population of the Kanem units that represented the Gukmol battle zone is almost 2000 persons but half of the population lived at the head waters of Minj. Specifically, the Gaime-Anjspa Kanem and Pong Kup - Kamp Kanem who initiated the war lived in the head waters of Minj, south of the Dama battlefield. There were ten shields on the Gukmol battlefield during the first day of battle however, three months later, when the combined Konombka assembled on Gukmol ridge I counted more than 50 shields at any one day during formal battles (Plate 7 & 8).

I discussed the fish symbol used by the groups at Gukmol. The colour of the Kamp Kanem shields at Gukmol were red, yellow and green. The combination of yellow and green symbolises one fighting force (B2/1-B2/5, B2/19-B2/24, B2/26). Another fighting force used a combination of red, white and blue. The important colour

was blue (B2/9- B2/13, B2/15, B2/28). Among the Gaime Kanem, the Ap Kanem segment painted their shields black and white (B2/14, B2/25, whereas the Kanjs Kanem segment added red (Shield No. B2/29a, 29b, B2/30).

The Anjspa Kanem shields were painted green, black and orange (B2/46, B2/47). Orange was the identifying colour. The colour combination that the Gaime Kanem and Anjpa Kanem pair used in 1987 were red, yellow, green and blue (B5/25-B5/30). Green distinguishes one fighting force and blue another. These shields were used at Kamang and none of them appeared under the same colour code at Gukmol.

The opposite of Gukmol is the Kopni summit. The spur is on the higher slopes and strategically important zone of the Kondika. The frontier region of the Kondika territory is owned by Kisu Kanem, Wimanjs Kanem and Dambnge Ta Kup. The total population would be approximately 1000 persons but there were about 10 shields.

During the first three weeks of fighting, the Konombka Kanem groups which defended the Gukmol lost the two ridges to the Kondika. On the first day of the battle, the Konombka attempted to fight uphill above the main road to Mondomil. But the Kondika had the advantage of the upper slopes and defended their battle zone using a combat technique often referred to as *Kugang doog* (throwing spears downslope at the opponents). The Konombka shield formation collapsed and in the process of a chaotic withdrawal the Gaime Kanem lost one of their warriors (Wi doog bangi). The following week the Konombka did not organise any forward attacks to gain Kondika's battle space. Already the Konombka had lost two men on the battlefield and the dead men's group felt that Kondika concealed some war talks. Until they found out the underlying causes of the death, the victim's group declined to participate at the frontline.

Successes and defeats in war are evaluated in terms of the distances that the shields cover between the opposite fight partners' battlefields. One of the informants made the following remarks.

> Where the enemy (*yi kapil*) shield comes and steps on the battlefield, the opposite fight partner does not go beyond it. The opposite fight partner must reciprocity the

fight, re-gain the lost territory and advance to destroy (*gul gar dop;* burning houses and wreaking fences) the opponent's territory. One fight partner does not simply cross the boundary created by the shields and invade the opposite fight partners battlefield. Only when 'the bow tree' (*opo ond;* formal acknowledgment of a defeat) have been given by one group to the other, that the former group's entire territory may be destroyed without a formal fight (M. Teke 1982, T/T 1990, also W. Kuma 1982, T/T 1990).

The Kondika continued to gain territory downhill. They destroyed the Gukmol sacred site (see Plate 24 & 26). The trees were ring barked and the surrounding grass covered slops were burned. By the fourth week the Kondika reached the southern edge of Minj township, Another Konombka was killed during a battle to defend the second strategic ridge top of the Konombka (Pong Kup Kopol Kaiwi).

First shots. During the last week of September 1989 the traditional technology of Wahgi warfare changed. For the first time in the history of the S. Wahgi speech community firearms were introduced into battlefields. It happened during the Konombka's invasion of Alua.

There are conflicting stories on which group fired the first shots. The Kondika accused the Konombka. But the Konombka fighting force that withdrew from the battlefield sustained heavy causalities. A number of warriors received pellet wounds. This incident brought an end to the war. The Konombka demanded the Police to arrest the individuals who introduced guns into traditional warfare. However, the authorities took little notice. Almost three weeks elapsed without fighting, while the groups desperately tried to obtain firearms. Meanwhile, the missionaries and the politicians put placards, wooden crosses and traditional taboo substances at the battlefields, in an attempt to prevent further warfare (see Plates 3 & 4).

The Konombka agreed to allow the Kondika to come to Minj township. On the 27th of November 1989 the Kondika came to Minj. But it seems as though they planned to destroy the Ngunba Senis village. This was a kind of revenge on the Konombka's destruction of Gabnal Senis. Most of the warriors hid their weapons near the Minj golf course and a few of them walked into Minj town. Once they realised that the Konombka

were not anticipating any confrontation they retrieved the weapons at the back of the golf course and attacked Minj town. The Konombka were taken by surprise. The Kondika almost reached Anginmal, the next major central activity place of Konombka. The Kondika were equipped with fire arms and the Konombka responded in the same manner.

On the 28th of November the Kondika advanced to the second ridge of the Gukmol battle zone. They reached the lower most ridge top before dawn. Meanwhile the Konombka mobilised at Numgil Village. It is located at the edge of the Gukmol ridge beside the Minj River Bridge and the village is the central meeting place of the Gaime Kanem. They followed the ridge and reached the burial place of the two Gaime Kanem that were killed during the war. They performed the revenge rites and went to meet the Kondika. The Konombka's counter offensive begun.

The battle for the recapture of the main ride top is demonstrated in the plates enclosed. The Kondika lost one of their shield carriers. Plate 17 shows the first tactical move. One of the Konombka 'fight husband' (*opo yiam*) moves forward up hill. The Kondika shields form a curve and charge forward. Plate 18 shows the *opo yiam* withdraws and joins three frontline men. On the right side of the Konombka shield men is arrow man wearing a green shirt. The Kondika advanced in front of the tree and the shield carriers spread out using the tree as a protective wall. However, the carrier on the extreme right opened his shield. The Kondika tried to throw the spear but the Konombka arrow man fired directly into the body of the Kondika carrier.

The Kondika lost one carrier on the lower ridge top. Since the Kondika penetrated deep into the Konombka territory they withdrew very fast and they abandoned the injured warrior. His body was returned by the Nene Kusilka people (Plates 23 & 24). The same day, the Kondika retaliated and shot one of the Konomb Tau Kanem leaders (Bernard Tai). He was a transplant of the Kondi Mandpa Kanem (sister's son). The shooting at Gabnal provoked the Konombka to unite and the entire Konombka fighting forces assembled at Gukmol.

The next day, the battle between Konombka and Kondika entered a new phase. Both sides were armed with guns, wooden shields, spears bows and arrows. The consequence of the mixed use of weapons of war left fourteen men dead within a period of one week. As gun warfare intensified, it was apparent that the battle towards the Kopni summit was dependent on the availability of fire arms. Among the Konombka there were no more than five shotguns and many home-made guns. The home made guns were produced in various shapes and sizes. Some of them were identical to the factory made guns but the main difference was that the home made ones were carved out of wood except for the barrels which were cut out of water pipes or any pipes that could take the shape of the bullets (Plates 21 & 22).

It was interesting to note how the people were copying and testing the various ways in which bullets could be fired against the enemies without injuries to themselves. It seemed that the people were experimenting with the new technology and given time they would be able to make guns which would perform the functions of the factory made ones. The Konombka learnt about the risks of home made guns through the loss of one of their warriors. He died through the accidental explosion of the bullets in front of his face. There were many accounts where the barrels (sawn off water pipes) exploded and the bullets spread in front of the warriors' faces.

As regards the techniques of fighting, is was a period in which wooden fighting shields and guns were used side by side. The home made guns seemed harmless. They were used in a similar manner to bows and arrows. A few frontline arrow men who carried the home made guns moved forward and fired one or two shots into the open space and returned to the line of shields behind them for cover. The aim was to draw the shield carriers to the spear reaching distance between the opposite shield carriers. Inside the tightly formed shield line were a number of individuals with factory made guns. The front line shield carriers opened up and formed parallel lines allowing the gun men in the inner side to shoot at the opponent shield carriers only a few metres away. This was the first technique the Konombka devised and it had devastating results.

While the Konombka learnt the risks of home made guns, the Kondika were soon to realise the insufficiency of the wooden shields as protective devices. I have stressed the practical limitations imposed by the heavy wooden shields in terms of control, command and attack in close combat situations. The wooden shields deter and minimise causalities on both sides. However the shield carriers are sitting ducks during gun warfare: the Kondika lost 7 men in two set piece moves within a single week. Three were shot in one set piece move and four were shot in another formal combat. All of them were shield carriers.

In one of the incidents, the Konombka claimed that they shot four Kondika with a single bullet at point blank distance. A shot gun cartridge could not have killed three people with wooden shield in a single line. A least the pellets could have been deflected after hitting the first carrier. It seems possible that the Konombka had access to a semi automatic rifle and spread a volley of bullets into a Kondika shield line up. I saw the incident from a distance of half a kilometre. Four of the wooden shields on the right hand side of the line up fell backwards with their painted side to the ground In traditional close combat the collapse of the shield formation would rarely occur in this way, because it would mean that the shield carriers are falling backwards on top of their shields. The purpose of the shield line-up is to avoid such incidents by having the next row of shields move forward to protect the fallen victims. Thus, among other things, the use of guns in the battlefield broke the rules of shield formation, one of the prestigious and central aspects of Wahgi warfare.

The Konombka came with superior weapons but this did not deter the Kondika from fighting for every bit of space from the edge of the Kopni ridge to the summit itself. After the loss of seven men within a single week the Kondika abandoned the idea of carrying wooden shields. A similar shock-wave was generated throughout the Konombka fighting forces. The 'fight husbands' and 'the bone shield men' felt reluctant to go in the frontline. From mid December 1989 to January 1990, the Kondika used ambush tactics instead. The traditional battlefields were abandoned and some of the

Kondika young warriors formed gangs and made a number of raids into the Konombka territory around the Minj town from strategically convenient places. The war was now in the hands of the young men and they conducted a kind of war without any rules at all.

This pattern of warfare followed a trend which I have documented previously among the Minimbi and Remndi people of North Hagen. This war initially started with wooden shields but progressed into gun warfare. Shields were abandoned and the loss of 32 warriors among the two groups was accounted outside the battlefield. The style of warfare involved young men from either sides sneaking behind their enemy territory and killing the first person they found then returning to their own side. The opponents responded with similar hide and seek tactics. The Kondika made a number of raids using the above Hagen style ambush technique. Some of the Konombka claimed that the Kondika hired gun men from Hagen region to fight for them. Kondika informants admitted that the Melpa gunmen were hired to fight on the Kondika side after they had lost so many men through gun warfare. Thus with modern transportation and desire for money, the scale and magnitude of traditional warfare extends beyond tribal rules and boundaries.

Nevertheless, the Konombka's justification for killing so many Kondika was that the Kondika initiated gun warfare. First, they were in the wrong for shooting the Konombka warriors at Alua. Second, when the war was temporarily ended Konombka expected the Kondika to respect the truce made by the missionaries and the government officials. Third, when the Kondika started the gun warfare three weeks after the peace negotiations, they were unaware of the fire power of the Konombka. By this I refer to the number of Konombka people who had successful commercial business enterprises on the fertile flatland where there was increasing concern for the protection of material property and where guns were available. The ineffective efforts of the police encouraged the business community to rely on their tribal groups for protection. It implied that some of them were willing to buy illegal firearms and supply them to the warring units. If the

KONOMBKA BATTLE GROUNDS	KANEM UNITS	POP	SHIELD CARRIERS	No. of DEATHS	KONDIKA BATTLE GROUND	KANEM UNITS	POP	SHIELD CARRIERS	No.of DEATHS
			KONOMBKA AND KONDIKA WAR 1989-1990						
BALA (1)	TAU KANEM	490	17	1	GABNAL (1)	MANDPA KANEM			
	TAU KANEM 2		2			JIMALE KANEM			
	NOK KANEM	800	2			MIGRANTS			
Total		1200	21					12	
GUKMOL (2)	PONG KUP	320		5	KOPNI (2)	KISU KANEM			7
	KAMP KANEM	320				WIMANJS KANEM			
	GAIME KANEM	530				TA KUP			
	ANSPA KANEM	270				TUNG KA			
	PIPI KANEM	485				MIGRANTS			
	TAUSE KANEM	485							
Total		2410	50					16	
PAKNGA (3)	KALAMBE KUP	415	10		ALUA (3)	WIMANJS KANEM			2
	PIPI KANEM	*	13			JIMALE KANEM			
	NOK KANEM	*	12			KISU KANEM			
Total			35						
DAMA (4)	ANSPA KANEM	*			TUMBANG (4)	KISU KANEM			2
	GAIME KANEM	*				MANDPA KANEM			
	NOK KANEM	*							
	TAU KANEM								
Total		4100	162	6			2000	at least 28	11
* Total population of Kanem units noted in Gukmol battlefield									

Table 8. 2. The Konombka and Kondika war.

Kondika had access to a number of technologically sophisticated fire arms, they could have inflicted the same amount of deaths among the Konombka.

The Konombka and Kondika war came to an end by itself. A year later the Kondika have concluded the period of war with the ritual termination ceremony. But underlying this factor is the fear of gun warfare. It is possible that the question of revenge against the Konombka for killing 7 men within two set piece battles will be in the minds of the Kondika and perhaps the period of peace is only temporary, until the parties have obtained more firearms. In any case, it can be expected that in the next bout of war between the two brother clans, the period of formal style war and of moral issues revealed through the symbols of wooden fighting shields would be replaced by guns. The grim lessons of the fighting shields as obstacles in gun warfare, and the fear of dying along with a useless wooden broad heavily strapped onto the shoulder of a warrior, will add new dimensions to Wahgi warfare.

Wooden shield displays. Indeed, the question of the shields need to be raised once again: Why do the warriors spend considerable time displaying shields in the battlefield rather than in actual combats? Is there a 'root' or base talk that relates to display and performance? The answer to such questions was expressed in the following way.

> We show the shields to the 'visitors' *(akamp gulka)* and the 'opposite fight partners' *(opo yiem)* to ensure that our 'wrongdoings' *(yiap aka)* are revealed and thrown to the public *(yiu ni penim kesim)*. If we do not confess our sins the enemies will still 'hold the war talks' *(opo yiu ambisim)* and kill us (Tumbe Nombri, Du and Kondi, Kalambe Kup, T/T 1990).

The fighting force expects to obtain some information from the spectators' interpretations of overall performance. There are two categories of spectators (a) the visitors to a battle arena *(akamp gulka)* and (b) the opposite fight partners *(opo yiem)*. The continuous shield displays did have an impact on the spectators and perhaps it had a psychologically demoralising effect on the opposite fight partners. My own understanding of the display is expressed here.

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One day (29/11/1990) more than 50 Konombka shield carriers (out of an approximate total of 200 wooden shield carriers) followed the road towards Ta Kup territory. On the opposite side, I counted eight Kondika shields. The shield carriers on both sides moved forward gently and easily, every carrier's movement synchronised with the other. The feathers of the shields were in a single line forming a momentary 'fence' (*gul puke bonjip*) but collectively swinging back and forth as the carriers simultaneously veiled and unveiled their faces by calculated movements of the hand straps (Plates 7 & 8). The bright colours stood out clearly from a distance while the intricate designs of the shields were obscured, in the mist of war chants, shoutings, warnings and the abusive statements. The spear length space between one carrier and the other allowing enough room to stand in attacking position. Each shield carrier seem to know how to respond to the one in front of him.

These combined aspects had a paralysing effect on me. By observing the conduct of war the metaphorical statements on the functions of shields recorded during pre-war field work sessions began to make sense. I wondered what the others were thinking to themselves. The combination of the *ekin* (decoration), *mon* (details or designs) and the shield displays seemed to indicate that the fighting force was indeed being judged and appraised by the spectators.

Combat (Kugang Mangake). Traditionally, the obvious combat pattern was limited to only four to five shields on both sides. The actual engagement, within spear throwing distance or within arms length, was no more than five minutes (see Plates 15 & 18). To illustrate these aspects, I draw specific examples from the Kalambe Kup fighting force. Unlike the other Konombka fighting forces, which were scattered throughout the major battlefields, the Kalambe Kup owned one battlefield. In the absence of a centralised authority the *yi doogum* principle adheres to aspects of social cohesion, solidarity and the effectiveness of the fighting forces. The emphasis is on mobility, rigorousness, lightness and minimal size for command, control and combat formation.

The Kalambe Kup fighting force is a typical example of the average fight force among the Kanem units. The population of Kalambe Kup is 415 persons and the fighting force consists of 10 shield carriers. It was the most effective and well coordinated unit. They were the leading group which penetrated Alua battlefield. Before they entered the Gukmol-Kopni battlefield, they re-painted their wooden shields.

There were a number of factors involved. First, the paints had simply worn out and the exterior surfaces needed a new coat. Second, it was suspected that there might be some connections or paths (*opo kondom kanem paim*) with the opposite fight partners. In order to break the connections, the Kalambe Kup warriors had to go through the war talk procedures that would allow them to fight in a different battlefield. This required a change in the image presented to the public. As indicated, the public confession rites are initially carried out exclusively by those fighting. It is a secretive and private affair. The question as to whether the performing group has actually confessed everything it ought to, is assessed by the audience and this implies that the wooden shields have to obtain new images. During one of the private gatherings, the Kalambe Kup painted their shields (Plates 15, 16, 19 & 20). The preference of colour combinations in Paknga and Alua battlefields were green, red, white and black. The designs corresponded to *Olge mon* (Type 3). The new colour combinations were red, green and white.

I have stressed that in a war the mother's brother should as a rule avoid fighting against his sister's children. The Kalambe Kup frontline shield carriers include one warrior (the best in the Kalambe Kup fighting formation) who led the initial attacks to gain control of the Kopni ridge. He was a transplant of the Kondika. During the war at Paknga and Alua he did not fight against his immediate root people at the Kanem level. Whereas in Gukmol-Kopni, he would have to confront his grand mother's brother's people.

As a convention the sister's children should not fight against the root people (Chapter 4). However in this case the pattern was reversed: it seems that the Kondika root people allowed one of their own 'blood transplant' in the Konombka to lead their

offensive strike against the Kondika. The implication is that the number of casualties would be reduced by the avoidance tactics between the mother's brother's people and sister's children. For instance, these connecting transplants can break a close combat duel and allow one group to chase the other without any deaths. The close combat tactical manoeuvre in Plate 15 did not result in the *Kugang mangake* duel. It was initiated by the Kalambe Kup against the Kondika force. When I asked why the Kalambe Kup broke the fighting formation they replied that two of the opposite numbers were transplants from the Kalambe Kup. The Kalambe Kup did not want to cut off the connections with their own transplants and or engage in cross-jabbing spear fighting which would enable the others to kill their own blood ties. If the other Konombka Kanem wanted to kill these category of transplant individuals they had to engage in close combat themselves. Such incidents occur regularly in the battlefields.

In this case, the close combat engagements attempt to avoid those who are connected through the root and transplant idioms. If the transplant of one fighting force is a good warrior and leads his own group, as an individual he may feel reluctant to cut is own roots. But at the same time, if the opposite fight partner feels that they are going to lose the war, it would be better for them to allow their transplants to invade the central war zone. This ensures orderly withdrawal and minimises casualties on both sides. Sometimes it seemed that the battle for the Kopni and Gukmol ridge reflected the above pattern.

Conclusion

I hope to have shown that S. Wahgi warfare is far from being a total war. It does not escalate from a 'nothing fight' in which a few arrow men run forwards and backwards firing arrows at each other to a major all out war (Vayda 1968, 1971, Rappaport 1984). The individuals did not wait in ambush or crawl behind the enemy. The enemy did not 'rush on killing men, women and children indiscriminately, burning

houses, destroying sacred trees and killed any body for the sake of killing (Reay 1959, 1988, Barnes 1962, Brown 1982, 1986, Hallpike 1973, 1977, Malinowski 1920:11, Healey 1989, Knauff 1989:265, Langness 1972b).

Another common assumption is that the the politics of the bigman is a never-ending struggle among the self-made leaders. The big men influence others through their ability and the followers fight to win or maintain the norms and status quo of their sovereign states. But behind the image the bigmen achieve political status and enhance their personal interests (Sillitoe 1978:252, de Lepervanche 1968:176). I did not come across the calculations of personal loss and gains by the big men that could promote their own interests, instead the 'war leaders' were beyond the age of 50. Many of them have participated in pre-contact wars. For the Konombka there was no single fight leader but there were 10 fight forces along the Kanem level with their own fight leaders often described as 'fight husband'. The orators (*yi ngom*; men with the voice), who would fit the anthropological definition of big men, numbered no more than five and they were not allowed to fight. The one paramount chief for whom everyone had the highest regard was Tumun Dupre, and his presence in the battlefield was carefully guarded (Plate 4).

I did not hear any single statement relating to competitions over scarce resources (Morren 1984, Meggitt 1977, Vayda 1989). The replies were dependent on the fact that I deliberately asked them whether they fought for land. Perhaps the underlying causes are land shortages but even this view does not seem to reflect the peoples' explanations of war. Nevertheless when the entire Konombka fighting force assembled on the Gukmol battlefield it was 'numerically superior' and easily defeated the smaller weaker clan (Strathern 1971). I expected the Konombka to defeat the Kondika decisively but even the combined fighting forces of Konombka had to fight against Kondika more than a month (November 1989-January 1990) before they were able to destroy the Kondika's *Omb kone*. In the second week of December the Konombka finally reached the Kopni ridge top and destroyed the Kondika's *Omb kone* on the north slopes of the Kopni ridge (see Plate 27). Table 8.2 summarises the war between Konombka and Kondika, and provides

details on the groups involved, their population size, the number of shields and the number of deaths per battlefield.

The Konombka used the wooden shields and firearms to reach the Kopni ridge within a week. Was it because the Konombka were numerically twice the size of the Kondika, or was it because they had firearms? Both reasons account for the deaths. When I raised these questions among the war historians, they insisted that the guns have eyes too.

> Did you observe the Konombka shield displays and the battlefields that they have won so far? Kondika did so many wrong things. We held the war talks so that we could attack them. When the ancestors first settled and became fathers of territories (*se danjip kunum*), we have stayed as moss people. There were complex network of talks. Now we went to war but the Kondika has the war talks (sinful behaviour that was concealed by the Konombka) and therefore they are dying now. The foreign guns have eyes too. They did the wrong things and died (W. Kuma, T/T 1990).

The appearance in the battlefield was assessed in terms of the inner moral conditions. The fighting bundle which did not perform to the expectation in the display was requested to seek the faults in war talks and then confess before they met their opposite fight partners. Even so the display of the shield before and after any formal gathering at a battlefield is an art in itself. It is not the war's physical manifestation which is of concern to the Wahgi because if and when someone gets killed the justification is 'too bad it was his own fault'. The fault, according to them, lies in the spoken words. It is through the art of debates that they try to prevent individuals from getting killed. If words are such powerful components of warfare, its social and symbolic dimensions are even more rich and complex.

Conclusion

Warfare revisited

I have attempted to show in this work that warfare can have many different interpretations and value judgments attached to it, depending on the views of those who observe it and those who practice it. Through the example of the Pub brawl and football violence (Chapter 1), I have shown that even within the camp of the detached observers definitions and explanations differ. Whether warfare is understood as having primarily biological or cultural roots, it is generally seen in a negative light as a form of deviancy and abnormality, to be suppressed or overcome.

These are the views of most Westerners in Papua New Guinea. Some of the many anthropologists and archaeologists interested in 'primitive' warfare see the phenomenon they study as a response to ecological stresses such as land shortage or resource scarcity. Others consider warfare to be an irrational and dissfunctional maladaptation at inter-group or intra-group level, or as the complement of an exchange system that has gone wrong (e.g. Rubel & Rosman 1978). Others still resort to psychological or psycho-analytical explanations, and emphasize individual and group personalities. While this set of theoretical positions has been valuable in its own right, it seems to me that they have contributed their part to a certain misrepresentation of warfare in the Highlands.

The popular conception of the belligerent natives as bloodthirsty cannibals eager for fight and violence which can be found in the anthropological literature have been based on too few reported incidents, and on hearsay. However, western anthropologists have an excuse for not having conducted long term and detailed studies of warfare. They may have like to study the indigenous communities in their pristine (pre-contact) condition (e.g. Vayda 1971, Strathern 1977, Podolefsky 1985, Meggitt & Gordon 1985) but this possibility has been denied to them by another crucial western influence - that of

the missionaries. Armed with zeal and resources to bring the 'lost' population to the fold of their god, the missionaries managed with remarkable success to erect their churches all over the Highlands, to build an impressive network of schools and hospitals, and to convert most of the population to Christianity. In doing so, they presented the practice of warfare as sinful and contrary to god's way.

These missionary ideas brought a sharp decline to the practice of warfare, at least until independence in 1975. By that time, the attitudes of the missionaries (and the anthrologists) towards warfare were adopted by the authorities: first the colonial administrators whose role was to control and 'if necessary use force to bring order and ensure that local tribal groups did not impede the movement of personel and supplies' (Meggitt 1977;146), and then the independent government who enforced alien rules by classifying warfare as officially illegal and punishable by imprisonment.

To balance this somewhat negative presentation of western influences, let me clarify that I am obviously not suggesting that traditional warfare should be encouraged or made legal. My argument is simply that there may be a case of double standards in prevalent attitudes towards traditional warfare. If, for example, we are willing to grant moral or legal justification to these coalition force pilots who carpet-bombed Baghdad from thousands of feet above, we could also try to listen to what the Wahgi warriors - who display their shields a few feet apart - have to say.

Wahgi warfare

Like most societies, the Wahgi distinguish between the murder of innocents and the killing of opponents in the battlefield. It is certainly the case that some Wahgi are short tempered and aggressive, and this condition is metaphorically related to an indigestion (the stomach is hot); it is both individual and temporary. This violent behaviour may escalate to fight (they fight with sticks) and even lead to homicide or

murder. These murders are considered to be immoral, and they lead to punishment, condemnation and compensation.

Wahgi warfare - *opo kumbo* - is a different affair. The Wahgi do not fight on the spur of the moment, and nor do they engage in a "total war" with the aim to inflict indiscriminate damage in lives and property to their opponents. In presenting an ideal overview of the conceptions and practices of Wahgi warfare (Chapter 1) from peace to war to peace again, I have stressed the regulated and ritualised nature of the conduct of war. This regulated aspect was also seen in practice during the long build-up to the fight between the Konombka and Kondika in 1989-1990 (Chapter 8). These preparations were carried out on a number of fronts. To start with, the future fighting opponents took stock of their available subsistence resources. They made sure that the land near the battlefields would be able to sustain the fighters and the spectators, and that, in case of defeat, their nut bearing crops would be available. Then, as importantly, they conducted a number of ceremonies in order to balance out their social relations with neighbouring groups. Bride-wealth transactions were payed, debts returned, and excess wealth distributed to potential fighting partners. Lastly, both groups made sure that they had religious and moral justification for starting the war. Each group conducted its war talk in which the sins of the individual members were confessed and concealed, while those of the opponent were recalled through the origin stories and recited. After these preparations were completed, two killings commited by one of the sides outside of the formal battlefield served as an excuse for the beginning of hostilities.

Were it not for the murderous introduction of firearms in later stages of the war, the number of casualties would have been minimal. The opponents would have been led by a third mediating group into peace negotiations and ceremonies. The victorious party would know that they had moral justifications for their actions since the gods were on their side, and the looser would admit that not all its sins or the sins of its ancestors have been confessed.

As can be gathered from this brief recapitulation, Wahgi warfare is both social and religious, and it has both a moral dimension and historical antecedents. It is also firmly tied to the landscape in which it takes place.

I pointed out in chapter 3 that the Wahgi divide their landscape between several ecological zones: the flood plains of the Wahgi river (*Wahgi aak*), the grassland, (*Kul aak*), the domestic environment (*Omb kone*), the runaway gardens or secondary forest (*Kek pene*), the tree gardens (*Ond pene)* and the alpine zones (*Kimb aak).* In the Wahgi cosmology, both the living and the death inhabit the same environment, and the invisible world is actively interacting with the living world. The spirits identified as good (*Kipe*) are associated with the living generations and are said to dwell along side the planted environment (*Omb kone*). The bad spirits (*Kangi*) live in uninhabited landscape up in the mountains or down by the floodplain.

With these notions in mind, we can address the explanation that has often been proposed to Highland warfare - that of land shortage. If we keep in mind that more than three quarters of a defined territory is land that does not belong to people but rather to spirits, it make sense to argue that what the Wahgi are fighting for is not land as much as landscape. What is worth having or protecting is not necessarily the most productive land in physical terms (the valley bottom where the cash crop plantations are now situated), but rather the one that is richest in spiritual and religious qualities, the one that contains the ancestral sites and the 'living monuments' to the group founders.

The ancestral landscape represented in the origin stories is of crucial importance to the Wahgi: It is in this landscape that they came into being, and it is reasonable to propose that the transformation of the ancestors from a "wild" life to a more "humanised" Wahgi society is a symbolic reflection of a transformation in landscape use and settlement patterns. From a semi-nomadic, shifting cultivation which relied heavily on the abundance of seasonal nuts and fruit crops, cultivation of taro, bananas, sugar cane, edible leaves and yam, there occured by 1600 AD an important change to a more

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sedentary life based on the permanent and repetitive cultivation of the newly introduced sweet potato. As the Wahgi origin stories and genealogical reconstructions indicate (Chapter 4) this initial period of settlement led to marriages and expansion of the children of the founding ancestors. Permanent village settlement, now regarded as ancestral sites, led to major pig kill ceremonies followed by the first known warfare.

In these conditions, it seems that the group that had access to the major river tributaries benefited substantially and transformed into formidable groups. On the other hand, the groups whose territories did not extend from the grassland Valley floor to the forest slopes and the high mountains were suddenly found in more unfavourable circumstances. They either died out or migrated to other cultural regions. In other words, they did not inhabit strategically defensible domestic environment. Access to natural food resources during times of stress were also limited. The Minjnge, Singa and Kokaka are groups which did move to the valley floor but were cut off from the higher slopes. They built their central activity place at Kormil where they celebrated their first pig kill ceremony, and the site is right at the confluence of Minj and Wahgi River.

All this explains how, in documenting the beliefs and attitudes of the Wahgi people, I came to the conclusion that the Wahgi too practice some form of archaeolgy. They are extremely concerned with their own past, and they attach great weight to any information that can be gathered about it - in the oral accounts, in the genealogies, and in the landscape itself, where relics of ancient warriors and locations of important event are maintained mentally and physically. There is an emotional, spiritual and pragmatic attachment between the present generations and the forebears. While some of the early ethnographers claimed that the past of the Wahgi Valley is rarely significant to the present realities, I argued against such simplistic conclusions, and advocated that, besides the archaeological research undertaken in the valley, there is a variety of ways to approach the history of the Wahgi people. In that sense, the destruction of the sacred site of Gukmol (Plates 25 & 26) may well be seen by the Wahgi to be as vandal as the destruction of a monument of national importance in the western world. The Gukmol site

was made of sacred plants, and not of stones and mortar, but this perpetual planting and replanting only strenghtened the links between the people, their past, and their gods (see Table 1).

DATE	HISTORY OF WAR	HISTORICAL EVENTS	KINSHIP STRUCTURE	YI DOOG DIVISIONS
1600 AD	PHASE 1	SE DANJIP KUNUM, INITIAL MIGRATIONS KUMA, DAMBNGE, NENE	KOPAM KAMBIN ROOTS, BASE &	15-20 PERSONS 150-300
		MOSS PERIOD (AKAMP MOSS PANJIP) GREASE, RELIGIOUS CEREMONIES,	TRANSPLANT CYCLE ASCENT SYSTEM	
1700 AD	PHASE 2	KONG GAR MOSS WARS, KUM KUMAI, POR KOKI OPO KARAI	KA (BASE) KUP (SHOOTS)	500-700
1800 AD	PHASE 3	YI GUKUM WARS	KANEM (1)	700-1000
1900 AD	PHASE 4	CONTINUATION OF OPO KARAI YI GUKUM OPO	KANEM (2)	1000-1500
1933 AD		WESTERN CONTACT		
1950 AD 1975		POST CONTACT WARS POST INDEPENDENCE WARS	DESCENT IDIOMS GAPAM, NGAAKIM DAM	1500-2000

Table 9.1. Summary of the history of war, genealogies and group structure of the S. Wahgi.

I have already noted that many of the features of current warfare among the Wahgi have been set long before any of western ideas and ideals were introduced into the Highlands: In that case, it is also by the Wahgi standards that we need to evaluate whether a war is justified or not, and whether it has been properly conducted.The relationship between the worlds of humans and the world of spirts, and between human

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groups themselves, must be balanced. Warfare in S. Wahgi is primarily concerned with moral debates. At one end is *yiap aka* (wrongdoings, detour talks and moral defiance) and at the other end is *yiu ni penim kesim* (revealing the talk to an audience, public confession or restoring the contrast in the process of pairing). The Wahgi will use any means to attempt and rectify this lack of harmony, including fighting and punishing those that have created disharmony. Hence the initiation of war is preceded by lengthy talks and discussion during which moral justification for warfare is sought from the gods and from the records of past events and wrongdoings of both the group and its opponent. The military strategies are encoded in the religious values and the conduct of war is inextricably connected to the goodness, orderly behaviour, just existence and moral dimensions of Wahgi society.

On this subject of assessment and evaluation of the surface meanings of the Wahgi culture, O'Hanlon's ethnographic account of adornment, appearances and performances before a crowd of spectators clearly stands out. It is outstanding because he reveals the ideas often associated with concealed aspects of Wahgi politics, religion, marriage and morality (1989:10). The important theme is that 'the appearance of those displaying is thought of as an external reflection of their inner moral conditions, with respect to questions of betrayal, of concealed anger, of reciprocity in brides, of fidelity to allies and acknowledgement of sources' (p. 125). The spectators' assessment of display is felt to give political security to the displaying group. O'Hanlon's emphasis is at the normative level and takes into account social practices pertinent to group interactions. A group's moral condition is at stake and display is a way of using the surface cultural aspects to read the inner truths about clan solidarity, continuity, fertility abundance and well-being..One way to display these moral states is through the wooden fighting shields. As my dimensional analysis has revealed, these objects are fairly standard in shape and size. However they differ markedly in their designs and their colours (Plates I-VII) with both relating to various symbols of fertility and religion and to group

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composition and affiliation. And since they display the moral condition of the group and the fighting force, the shields are available to modifications and 'updating', according to changing events and moral assessments

To conclude, I have attempted in this work to combine anthropological perspectives on warfare with my own insider vision. I have also endorsed or mentioned several archaeological perspectives; those of the archaeological investigators in the region, and those of the Wahgi themselves. This had led me to pay particular attention to two crucial archaeological dimensions: that of material culture, and particularly the shields, and that of time and the record of prehistory. Given the nature of the phenomenon under study, it was difficult to separate the issue of warfare from others, and I have referred to the Wahgi origins stories, their conception of the landscape, their genealogy and group structure, their marriage relations and so forth. Plate 3 can serve as a final image to convey the complexity of the situation. The placard erected on the battlefield appeals to three authorities - that of the church, that of the government, and that of the taboo substance. I know that if the Konombka and Kondika did not resume their fight, it is because they held the taboo substance in respect.

Appendix 1.

The Origin stories.

The Dambnge people.

The Konts gapam. The Konts gapam (grand children of Konts). The groups are Kopanka, Plingapka, Tungka, Kapakemka, Kamblika and Kulna. Only the Kamblika and Kopanka are they contemporary Ka units; the rest are incorporated into other groups (K. Kapak, D. Wardlaw, J. Goi. F. Muke, M. Teke, T/T 1990). Although, Tangilka is a Dambnge it is often classified as 'brother clans' to the rest of Dambnge. The Tangilka is the 'shadow brother' of the Kopanka and this classification is used by the other Dambnge people to refer to Tangilka's political relations with them. The Kopanka informants claim that the ancestress of the Dambnge lived with her children at Omung River Valley.

One day the old woman came to the confluence of Omung and Numants River. She looked towards the Numants River saw patches of green grasses after a bush fire. She decided gather the edible leaves a plant that normally grows along with *Imperata termilis* grass (Kunai grass) soon after there has been a major bush fire (*Bek* plant)

She travelled further into the head waters of Numants Valley. Soon it was getting dark and she could not find her way back to Omung. She stopped at Kukumb-Kikmil. She searched for a spot to sleep and noticed a huge Kaman tree. The roots of the kaman tree provided a rough shelter. She looked for food and further up the valley she came across a sweet potato known as *Nguntsjwan.* She harvested two tubers; one for herself and the other for her dog.

When she returned to the Kaman *dumbuk* (roots of the kaman tree) she realised that she did not have any fire to cook the food. But she looked across and before the Tapia ridge, toward Gurber, she saw smoke reaching the sky. She talked to her dog and said if only you understood the language you could run across and bring me a fire so that we could cooked our food. The dog heard what she said and ran across to Tapia Ku Beku. It stole a burning wood (*dop tumbun*) from the village of the pigs.

The old woman was pleased with the dog and she cooked food for themselves. The children were worried about her disappearance and followed the Numants River. They came to Kukumb-Kikimil and examined the site where she slept the previous night; under the roots of the Kaman tree. They felt sorry for her and built an house at the site.

She continued to live there, drank the water dripping from the roots of the Kaman tree and somehow got pregnant. She told her sons that she had been drinking the water from the Kaman tree and got pregnant. Later she give birth to a son. He was named Konts.

The descendants of Konts are the following groups; Tungka, Pilngapka, Kondi Ngaakim, Kopanka, Kamblika and Kulna. It is claimed that two of the Kambilka units are migrants. The Paka Kanem are migrants from Kerowagi; a segment of the Paka group. The Bendik Kup are said to be made up of segments from Kulna, Beiman and Singa-Aklimka.

The Minjnge people.

The children of the worms. Minjsnge, Singa and Kokaka were major political units which have shrunk in group size. A few of the living members are incorporated into other Ka groups around the confluence of the Minj and Wahgi rivers. I shall outline the story to discuss the cultural meanings associated with the religious values of Wahgi people. Also the story provides a background to the war relations that the Kalambe Kup, a segment of the Singa group, and Minjsnge people scattered throughout the Konombka, maintained during the recent war between Konombka and Kondika (Chapter 9).

It is claimed that the Minj plateau from the Kokpa River to the Minj River was covered by grassland. People set fire to the entire grassland but it would take a few days before the entire vegetation was burnt down. When the grass land regenerates it is an ideal time for the *bek* (edible leaves) plants to grow.

Two Wilimbka girls who lived at Pasa decided to pick the *bek* leaves. They started from the west and walked eastward until they reached Kupand *Kauang aak* (Kupand, the place with the *Kauang* trees). They looked down towards Kormil and saw smoke reaching the sky. They thought it was bush fire and returned home. They cooked the greens. The next day they looked towards Kormil and saw the smoke coming up from the same spot. When they reached the site, there was no fire. Instead, the noticed a clearing and at the centre of the surface was a lump of soil (*maagk mong*) moving about as if it was dancing (*gol er paim*). The girls opened the space and broomed all the rubbish away. They moved the lump of soil and placed it on the clean surface and then returned home. Anxious to find out whether it was still same location, they left early in the morning. At the site, the lump of soil was not in the clearing but moved away and was rolling in the dust and dirt (*mogk tumburumb*). It looked more like a earthworm (*jekmin*) than a lump of soil. They discussed between themselves whether it was a person (*akamp ende paim*) and

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decided to leave some raw sweet potatoes beside a *Waa* plant. They said that if it was a *akamp* (person) it would consume the potatoes but if it was a *maagk mong* (lump of soil) it would leave them.

Next day the girls returned to the site and noticed that the sweet potatoes disappeared. They decided to build a temporary hut and leave the sweet potatoes inside the shelter. Again the food disappeared and the object was not inside the makeshift hut but outside in the dusty place. They concluded that it must be a human being and returned home to tell their brother (*anganjik yirom*; person of less social importance). The following day the brother accompanied them to the site and expanded the hut into a semi permanent house. The girls planned to trap whoever was eating the potatoes and dug a hole in the same area where they previously placed the sweet potatoes. Then heaped some of the potatoes in the bottom of the hole. They covered it was grass and left an opening on the side for one of the girls to place her hands close to the opening. While one was waiting beside the trap hole the other kept the fire going. She also had a pig's rope (*kong kan*) beside her.

Late in the evening they heard rapid noises outside the house and then suddenly two beings appeared at the door. They had untidy hair (*peng bur ngi*), flaky skins (*ngants gake make*) and did not wear any clothes (*kumak kunjap*). One of them was at the door and the other rushed straight for the hole. He pushed his hands to grab the potatoes. The girl held on to the hand and shouted at her sister to bring the rope. They tied him in the middle and pulled him to the centre post of the house. He struggled to free himself and shouted to Kui (his brother) to come and help him. But Kui replied and told him to change into an earthworm, a snake, a pig or bird but the girl sat close to him. He struggled until he was exhausted. The girls cooked all the sweet potatoes and heaped it beside him. He ate them in a uncustomed manner (*dukum dakam*) swinging his head from on side to the other. The girls put more logs on the fire and the heat made him go to sleep. They watched him till next morning.

The next day the Wilimbka brother returned to Kormil and noticed that this 'wild' person was naked. He cut his sisters string net bags and dressed this person. The brother told the girls that we will build a fence in the nearby area for them to grow crops and tame their newly discovered male friend. There were no villages nearby and the the brother brought pigs, sweet potato leaves and taro for them (*yiap ombom*) to cultivate in their new gardens.

Then one day they heard that people on the north bank of the Wahgi River were organising a food festival involving the exchange of taro (*mi bilt*; heap of taro). On the final day the girls told Kai that since they were *ambik moss* (unmarried girls) there was no reason for them to stay at home but to attend the courting ceremony (*yi maan*) and look for

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male partners. They dug the taros beside the house, selected all the good ones to take them to the taro festivals and left behind one disfigured with a broken edge for Kai to cook. Kai watched them go across the bridge at Kugma kul and then changed and took off his other skin (*ngants gake make*). He hung them on a *Bup-Kola* plant beside the house. He changed into a handsome young man and put on the best traditional decorative items. Then he joined his brother Kui and the Kipe clansmen to participate in the dances (*wubak*). A long phalanx of dance group hit the arena and it attracted a large crowd.

All the members of the dancing group had bundles of taro on their shoulders. The girls came to see the performance. In the front line (*ngumb to*) were two handsome young men. One of them was carrying a taro with a broken edge. It looked almost identical to the one the girls gave to Kai. The girls wanted to find out and invited the two young men to come and participate in the courting ceremony. Late in the afternoon, one of the girls told the other to continue singing with the presumed Kai and the other one was going to check at home. She let Kui return to his clansmen and told the other two to wait for her: She would find another man and join them. She ran straight for the foot bridge and came to Kormil. Kai was not around. Beside the Bup Kola tree was the flaky and dusty skin that Kai used to wear. She collected them and burnt them to ashes.

Later the other sister released Kai and followed him. Kai reached the bridge. Then looked across to his old home but he could not see it. He panicked and ran to the house but could not locate his other skin. The smell of his other clothes filled the area. He looked across the vast grassland but he could not see his long house (*gar yiemenge*), animals (*Tu, Kong* dogs and pigs), gardens (*gul kekep*) and or items of wealth (*Koi-Kai ming*; feathers, furs and plumes containers). He cried and shouted across to Kai that he could not see his domestic home any more. Kui told him to transform into snakes (*epil, aminjsne, keru*) and earthworm (*jekmin*). But his *ngants gake make* was destroyed completely and he was transformed into a human being. Then he asked Kui to give some of his pigs so that he could get married, pay bride price and settle in the human world. The girl who captured the being married him eventually and gave birth to three sons.

They were Korop, Pake and Singa. Korop and Pake staged a pig kill together at Kormil. During the ceremony, Pake raped a young girl. Korop attacked Pake and it led to a major war *(dje bonjik)*. Pake migrated to Kimil River. The Kumu Kokaka at Kimil are descendants of Pake (Waipek Kuma per comms 1982, 1989, T/T1990).

Descendants of Korop are known as Minjnge. They stayed with Singa at Kormil Kana. Then a dispute over a woman led to the Minjnge and Singa Angikimka war. The

Singa Angikimka chased Minjnge to as far as the Bol Ridge and into the headwaters of Minj River. They joined the Konombka. The Kuma Konombka supported Minjsnge and chased Singa to North Wahgi. The entire group have dispersed and are absorbed into many of the north Wahgi groups. Waipek comments:

> Some of the Singa are now amalgamated into the Nene Muruka. Also the Konombka took back one of their sister married to Singa. They left her at Paknga. She gave birth to a son. He was the ancestor of the Kalambe Kup. The Kalambe Kup are a segment of Singa Angikimka now absorbed into Kuma Konombka (Waipek Kuma 1982, 1986, T/T1990).

The ancestral site of the Minjnge, Kokaka and Singa is Kormil Kana, located at the confluence of the Minj and Wahgi River. The accounts of the Nene, Kumnge, Kisu and Berep groups are not included but the hereditary links between the named ancestors and the contemporary groups imply that the members of the single origin groups have exclusive inheritances to their origin stories. Some of the issues emerging from the presentation of the origin stories are discussed below.

The Kuma people.

The descendants of the eagle (*Kumbraagk Kip*). It should be noted that Reay (1959) recorded an account of the origins of the Kuma people. Her reference to the Kuma ancestor as a possum-like creature is in fact the origin story of the Nene people and this is not discussed in this paper.

The ancestral site of Kumbraagk is associated with the Kuma people. It is claimed that an ancestor called Kumbraagk Kip lived there. He had two sons Akmaagk and Piku Konts. Akmaagk stole a pig and Piku attacked him. He cut Akmaagk's ear lobes. Angered by this incident Akmaagk fled eastwards from Kumbraagk. He walked up to *Mugk maagk gar* (sky-earth house) ridge and looked down towards the Minj River. He saw smoke rising from Wagkmil. He came to the village and met two Nene old men. One from Apka and the other from Kanjska. They asked him for his identity and he told them that he lived with his brother at Kumbraagk but Konts attacked him and cut his ear. They told him to stay with them. They had a sister called *amp rom Minj maam* (*amp rom*: not good looking; *maam* mother of Minj River). She married Akmaagk. They had five sons and one daughter.

The first born was named Kurup (Kuma Kurupka). The next was named Ping (Kuma Konombka). After Ping was Kondi (Kuma Kondika). After Kondi was Maiam (Kuma Maiamka). The last born was Akilim (Kuma Aklim Karale Kup).

The Kugika are the sister's children. They gave a sister to the Tsengalap grassland people. She was pregnant when her husband died. She returned to live with her brothers and fathers *(angam-damna)*. She gave birth to a son. He was named Kugi. Kug (ika are their maternal relatives *(bepanjip-apanjip)* who have stayed permanently hereGalinga T/T 1990, Kuma Waipek T/T 1990)..

The children of Konts remain at vicinity of the ancestral site of the Kuma people at Kumbraagk. They are Pikuka and Deimanka. The subsequent wars of the Kuma Konombka after the initial migration of the Kuma ancestor from Kumbraagk to Wagmil Tembil are ordered below.

1600 AD. Initial settlement *(se danjip Kunum)*.

> Konombka assisted the Minjsnge in their war with the Singa. A segment of Singa was incorporated into the Konombka. The population expanded and became Kalambe Kup. The Dambnge Tangilka's founding ancestor's brother was killed in the central Chimbu region.

1700 AD First wars *(Moss opo)*.

Beginnings of the Kum Kumai war. It became a 'war of bird of paradise'   *(opo karai)*.

Opposite fight partners *(opo yiem yiem)*

fight root man *(pund puk yi)*	fight root man *(pund puki yi)*
Konombka	Kurupka
Kondika	Maiamka
Kugika	Owika
Aklimka	Nene Taka

Allies *(opo kaijen)*	Allies *(opo kaijen)*
Nene Kusilka	Kisu
Dambnge Kambilka	Deimanka
Dambnge Takup	Pikuka

(See discussion on the models of the war relations in chapter 4).

1750 AD. Shadow brother group wars *(yi gukum opo)*.

Konombka vs Nene groups (Kusilka, Kanjska, Aklimka and Apka)
Takup vs Kopanka.

1800 AD Brother wars (*angam angam opo*).

Kuma Konombka vs Kuma Aklimka
Kuma Konombka vs Kuma Kugika
Kamblika vs Kulna
Tangilka vs Takup
Tangilka vs Kopanka

Change in alliances patterns.

Konombka + Tangilka + Apka vs Kopanka + Kamblika
Tuimekup + Golikup vs Kononka + Jingekup + Bonmokup

1900 AD. Continuation of the wars of the late 1800s

Opo yiem	*Opo yiem*	
Konombka	Muruka	Kulna
Kondika	Kusilka	Kumngo
Tangilka	Kamblika	
Tuimekup	Kopanka	
Golikup	Komonka	

1937	Konombka + Tangilka vs Nene Muruka + Kamblika + Kopanka
1950	Konombka vs Berepka Tangilka vs Nene Muruka
1967	Tangilka vs Kumngo
1970	Tangilka vs Kamblika
1977	Konombka + Kugika vs Nene Muruka + Nene Kusilka
1979	Tangilka + Kopanka vs Kambilka + Komonka + Kumngo + Muruka + Dange Waka
1982	Tuimekup + Golikup + Tangilka + Kopanka vs Komonka + Kamblika + Kumgo + Muruka
1985	Kugika + Konombka vs Muruka + Kusilka Kondika vs Berepka
1987	Konombka+ Kugika vs Kusilka + Muruka
1989	Konombka vs Kondika
1990	Kopanka + Tuimekup + Golikup + Tangilka vs Zingekup + Bonmokup + Komonka + Kambilka + Kumngo

Some aspects of the history of warfare are discussed below

Chronology of the S. Wahgi warfare.

1600 AD. Initial movement of people *(se danjip kunum)*. Around the 1600s, the origin stories suggest migrations from the high altitudes *(Omb Kone)* and the valleys along the tributaries of the Wahgi River down to the grassland zone *(Kul aak* and *Wahgi aak)*. The initial migration and settlement from the high altitudes to the grassland corresponds the time of introduction of sweet potato.

Dambnge Tangilka migrated from Central Chimbu to Tapia region. Kuma groups migrated from Kumbraagk to the Minj River Valley. Minjsnge, Singa and Kokaka migrated from the Pata slopes to the Minj grassland plains. A period of 100 years is perhaps marked by rapid growth in population which leads to the emergence of the Ka groups. The initial war alliances of the Dambnge groups were as follows. The Tangilka and Kopanka were allies of Kuma Kurupka and Owika. The Dambnge Ta Kup were allies of the Kuma Kondika. The Dambnge Kamblika was the ally of Kuma Konombka.

1700 AD - 1800 AD. First wars *(moss opo)*. The first sequence of historic wars fought soon after the expansion of the Ka groups is often referred to as *moss opo*. The two major categories are Por Koki and Kum Kumai wars. Kuma Konombka was a principal fight partner in the Kum Kumai war. These are recalled with reasonable accuracy because of the large number of the political units that participated and the distance which fight partners travelled to challenge others in a open battlefield.

The term Kum is used to lump all the groups that shared territorial boundaries along the Minj River Valley. They collectively form a single confederation and fought against the opposite fight partners, the Kumai groups, west of the Kumbraagk ancestral site. The responsibilities of the fight root men were shared among the Kuma brother

groups. On the Kum side were Kuma Kondika, Konombka, Kugika and Aklimka. The allies were Nene Kusilka, Dambnge Kambilka and Nene Apka. On the Kumai side was Kuma Kurupka, Kuma Deimanka and Kuma Owika. The allies were Kisu and Nene Taka (Waipek Kuma T/T 1990, A. Enjin T/T 1990, Galinga T/T 1990, M. Teke T/T 1990, O. Alki T/T 1990, T. Kugang T/T 1990, Kapen Mange T/T 1990). The war among the Kuma is often classified as the war of bird of paradise *(opo karai)*. In the case of the Kum Kumai war, the hostility between the opposite fight partners lasted for several hundred years.The Kum Kumai war was started in around the 1700s and ended after 1933.

Soon after the first Kuma wars, the Konombka fought against the Nene groups (Kusilka, Kanjska, Aklimka and Apka). The Nene groups as indicated in the origin story the root people.of the Ka groups of Kuma. The Konombka claimed that they fought against their root people and lost a lot of men in the first bout of war. Konombka fought at regular intervals with the Nene groups.

The Tangilka and Kopanka were allies of the Kurupka and Maiamka pair until after, the war between themselves around mid 1800s. During Kum Kumai war a Tangil Kumu Kanem named Gelenge Yikambi was killed at Baril Tup aak, near the Kane Bridge. The skeletal remains are represented by symbolic plants in the Kumu Kanem communal cemetery. He was on the Kurupka side of the battlefield. It is not clear whether Kopanka and Tangilka were allies of the Kumai groups or remained neutral. Perhaps only a few individuals visited the Kumai battlefields and may have participated in the wars.

After the Kum Kumai *moss* wars, the *opo karai* among the Kuma groups were as follows. K. Konombka fought against K. Aklimka and K. Kugika. K. Kondika fought against K. Kugika. K. Golikup fought against K. Tuimekup. Among the Nene groups, the N. Kusilka fought against the N. Muruka. N. Kanjska fought against N. Apka.

The first wars among the Dambnge groups were between D. Kopanka and D. Ta Kup. The D. Kopanka were dispersed eastwards and they sought refugee among the South Chimbu clans. The D.Tangilka invited the D. Kopanka back in order to attack the Ta Kup. Most of the Ta Kup sought refugee among the Kondika. They returned to their

territory in the early 1900s but after the D.Kamblika chased both Tangilka and Ta Kup to Minj, the Ta Kup remained with the Kondika for the last 90 years. The D. Kamblika fought against D. Kulna. The Kulna migrated eastward and joined K. Golikup.

In the mid 1800s Tangilka fought against the Kopanka. The alliances changed. Kamblika joined Kopanka. Tangilka joined Konombka. From 1800s to 1979 the Tangilka and Konombka operated as single fight partners. Kopanka and Kamblika remained allies until after Kopanka's war with the Komonka. In 1979, the Tangilka and Kopanka united and fought against Kamblika.

1900 AD -1933 AD. Pre-Contact wars. After the Kamblika murdered Kumu Kanem Koingamp during the Tangilka and Kopanka war, the Tangilka took revenge and murder a Kamblika outside the battlefield. The bitter war between Tangilka and Kamblika continued through to the present. They have remained the opposite fight partners for the last 90 years.

Konombka fought probably more than four times with the Kusilka and Muruka. There are clear records of the hostility between Konombka and Nene groups in the late 1800s Konombka. The Konombka and Muruka war resulted in more than thirteen deaths. The war allies who died for the Konombka include a Berepka (Ambak), a Kumngo (Amban), a Minjsnge (Kongi) and D. Tangilka (Olal). The genealogy of Kumu Kanem records the death of Olal Tapi, which falls in around the 1900s. He was killed in the war between Konombka and Muruka. He was buried at Dokomb near the recent Gukmol battlefield.

The Tangilka and Konombka, along with Tuimekup and Golikup, fought together in most of the wars initiated by any of the allies from the mid 1800s onwards. The oral history certainly demonstrate these groups were fighting on the same side in most of the wars from the 1900 to 1960 (see Map... distribution of the alliance and enemies in S. Wahgi Chapter 1).

1933-1965. Post-contact wars. Soon after contact, the Tangilka were chased back to the Minj head waters. They remained in the Konombka territory until the 1940s. The Konombka attacked Nene Muruka. The Tangilka fought along side Konombka. They chased the Muruka and Kamblika to N. Wahgi. The Konombka fought with the Berepka. The Police intervened and killed 14 men, seven on each side. This action put an end to the wars of the Konombka until the mid 1970s In late 1950s Tangilka fought with the Nene Muruka. The Tangilka were jailed for killing a Muruka.

1977-1990. Post Independence wars. In 1970, Tangilka fought with the Kamblika. Tangilka killed a Kugim Kup of Kamblika. In 1978, Kamblika fought against the K. Komonka. The Komonka paid compensation for killing a Kamblika. A year later Kopanka went to war with the Komombka. The Komonka killed two Kopanka warriors. Tangilka participated in the war and were accused of killing two Komonka on behalf of the Kopanka. In 1979, the major war between Tangilka and Kamblika which was planned since 1970 erupted. The Komombka, Kamblika, Muruka and Dange Waka of North Wahgi fought against Tangilka and Kopanka. In 1982, the Tuimekup and Golikup formally joined Tangilka and Kopanka. The war continued for the next four years.

Tangilka and Kopanka numbered 1500 persons, whereas Kamblika and its allies numbered 4,200 persons (Kambilka 1500, Kumngo 700, Komonka 1000, Nene Muruka 1,000). The later group were numerically superior to Tangil and Kopanka. During the 8 years of fighting the group with the larger population was not able to declare a decisive victory. Instead, Tangilka and Kopanka, along with their allies (Tuime-Golikup 1,000) routed the Komonka completely out of its territory. The deaths to the Tangilka in the battlefield are as follows; Kumu Kanem 2 men (Tapi and Pinge) Kombok Kanem 2 (Koingamp and Gane) and Pinga (Kinding). Kopanka lost 7 men. In the course of 8 years of war (1979-1986) Tangil-Kopanka lost 12 men. The number of deaths of the opponents are not known but least 20 names were publicly announced at the battle scenes.

In 1977 the Konombka fought with the Muruka. The fight was initiated by the Kugika. The same groups went to war again in 1985. During the same year the Kondika fought with the Berepka. In 1987 the Konombka fight with Kusilka and in 1989 they fought with the Kondika.

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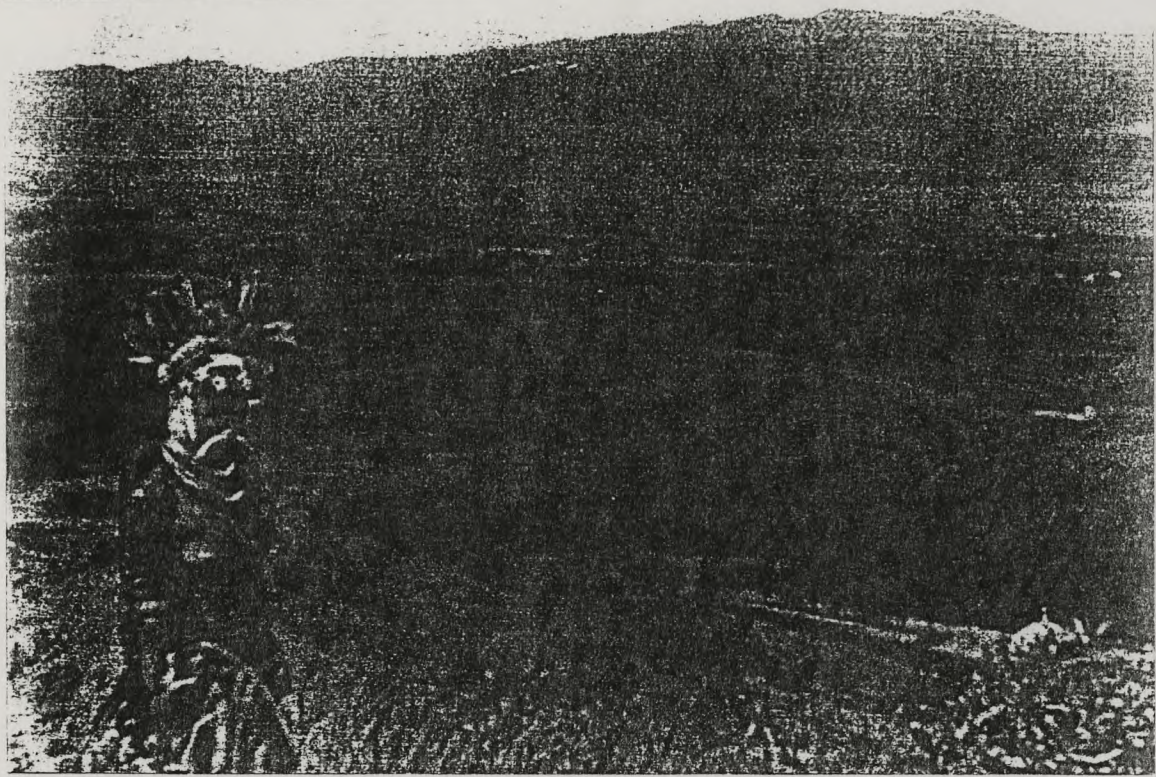
Plate 1. The Minj grassland *(Kul aak)*. Landscape of the bad spirits, it was not inhabited at the time of contact, and the photograph may have been taken between 1933-1950 (source Adams 1954).

Plate 2. The same area after the Konombka and Kondika moved down from the Minj Headwaters. Minj Catholic Mission station is on the far left side with the Gabnal-Bala battlefield in front (1989).

Plate 3. Symbols of Peace. Placard planted by the missionaries to stop Konombka and Kondika war. The traditional taboo substances (*milt bol*) are placed below the placard (see text for translation).

Plate 4. The contemporary process of peace-negotiation; the Konombka leaders, the Police officers and the Government officers.

Plate 5. Marriage transactions between the Tau Kanem and Kumu Kanem, representing the last two hundred years of war partnership between Konombka and Tangilka. On the left, two 'connecting persons' from the husband and the wife's side (1987).

Plate 6. The role of the 'connecting' and 'root' persons (Wilngal; far left, and Galinga in front of the bride) is reversed by the 'transplant' of the Tau Kanem (1989).

Plate 7. The combined Kuse Kup 'fight bundles' of Konombka display their shields in the Gukmol Battlefield. The arrow men are on the 'inside' of the shield display formation (1989).

Plate 8. The Tumbe Kup 'fight bundles' of Konombka display their shields Note the numerous spectators watching and evaluating the qualities of the performance (1989).

Plate 9. The U shape shield formation of the Konombka at Kamang Battlefield. The shield designs typles in the front line, from left to right are Type 3, Type 6, Type 3, Type 4 (1987).

Plate 10. The U shape shield formation of Konombka at Gukmol Battlefield. The shield designs, from left to right are Type 7, Type 5, Type 3 and the ones on either side behind the frontline are Type 4.(1989).

Plate 11. The process of shield painting during the rite of 'they peel the bow bananas' (Stage 2) and after a fighting force has changed battlefields. Kalambe Kup (1989).
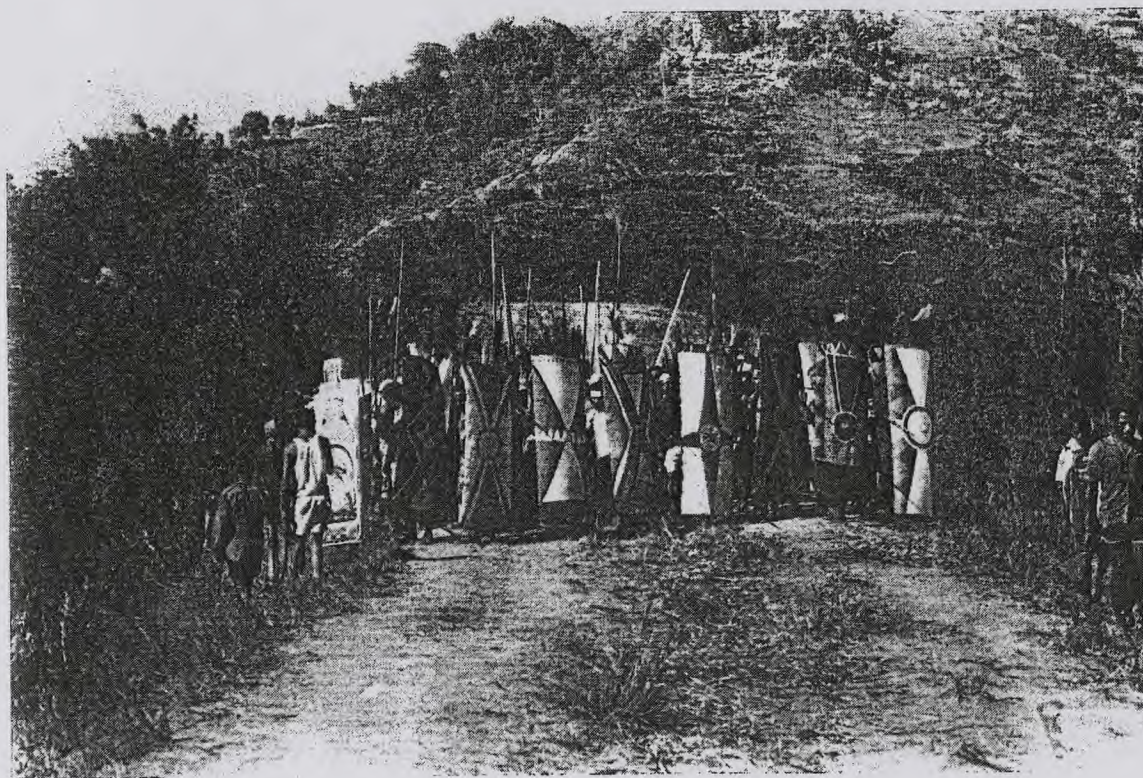
Plate 12. The Konombka victory dance, after killing a number of Kondika warriors at Kopni ridge (Nov 1989).

Plate 13. The Kumu Kanem shield designs. The photograph was taken in from of the burial site of the warrior Pinge Alki in 1982. The shield design from left to right are Type 3 and Type 7 (also Type 8).
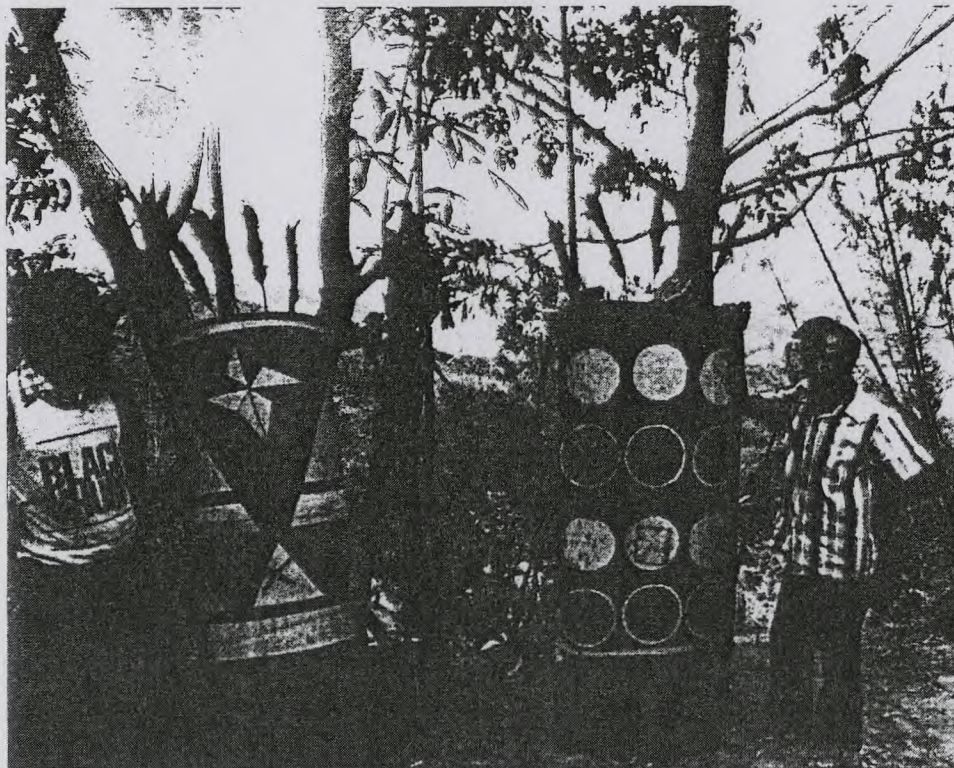
Plate 14. The same shields have been redesigned and painted again during the period of war between Tangilka and Kamblika 1982-1986. Shield design Type 3 has been changed to Type 6 (Photograph D. Wardlaw 1989).

Plate 15. Close combat with shields. The Kalambe Kup against the Kondika, Minj Golf course November 1989. The number of shield carrier do not go above 10, as noted in the shield displays. The gain and loss of territory is marked by the tree. In the first move the Konombka advance forward.

Plate 16. Close combat with shields (*Kugang mangake* technique) The Kondika frontline shield carriers advance, and regain the territory that the Konombka shields have 'conquered' (1989).

Plate 17. The advance by the Konombka, owners of the Gukmol battle route, after loosing it to the Kondika in the previous three months of battle (September 1989-November 1989, Photograph B. Kugam).

Plate 18. The Kondika shield carriers move in front of the tree. Note the arrow man on the right hand side (small figure in green T-shirt) aiming his arrow at the shield carrier at the extreme right of the tree, whose body is exposed and out of the 'shield formation' movement (Photograph B. Kugam 1989).
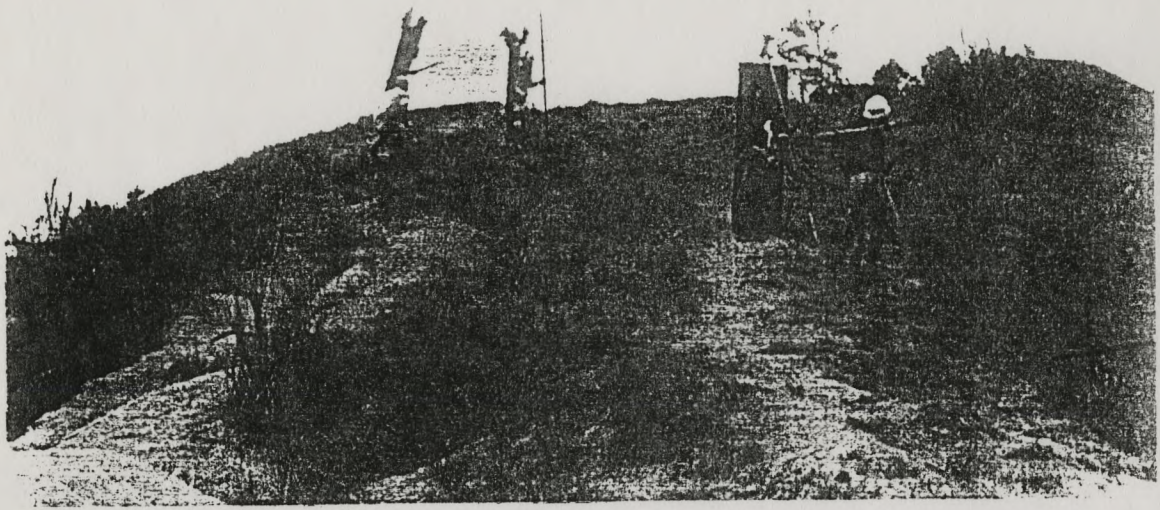
Plate 19. A view of the fontline shield formation. The Kalambe Kup reaching the edge of the Kopni Ridge (Photograph K. Kapak).

Plate 20. Warfare in transition; the shield man (fight husband), the arrow man and the gunman (K. Kapak 1989).

Plate 21. Loading a Rifle (obtained illegally).
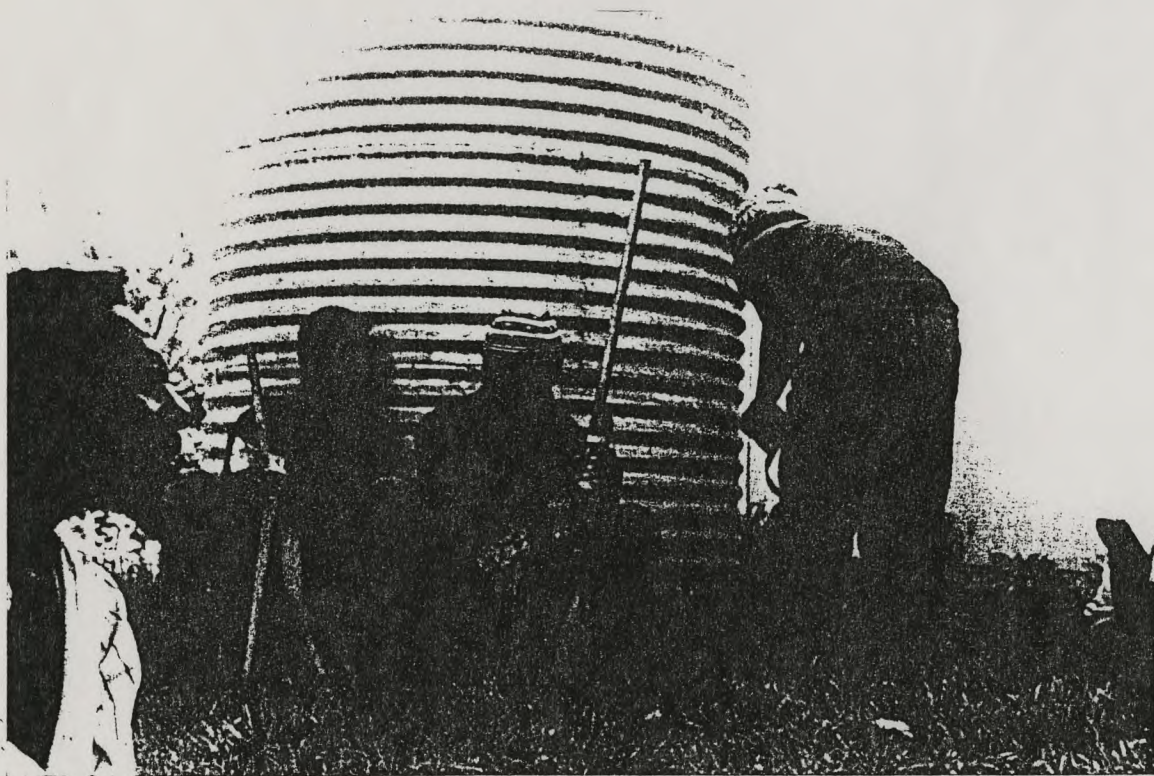
Plate 22. Konstabul Maiam of Gaime Kanem explaining the disadvantages of a home-made gun (cartridge exploded between the trigger and the barrel, November 1989).

Plate 23. The Gukmol battlefield. The body of a Kondika shield carrier abandoned by the Kondika in the course of the chase and run tactic.

Plate 24. The lower ridge of Gukmol, once covered by vegetation, now cleared as an open space for battles. The crowd is watching the removal of the body (to the left) by the Nene Kusilka, acting as a neutral party and delivering it to the victim's group for burial.

Plate 25. The spectators watch the first day of battle. The Konombka owners of the Gukmol sacred site (at the background) display the shields to the Kondika, at the end of a day's battle (September 1989)

Plate 26. The Gukmol site without the vegetation cover, after four months of regular battles between the Kondika and Konombka along the Gukmol Kopni battle route.

Plate 27. The destruction of the Kondika *Omb kone*; between Kopni ridge and Gabnal by the Konombka after 5 months of war.
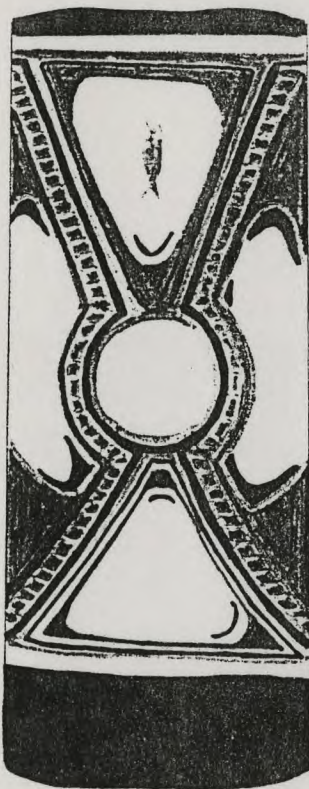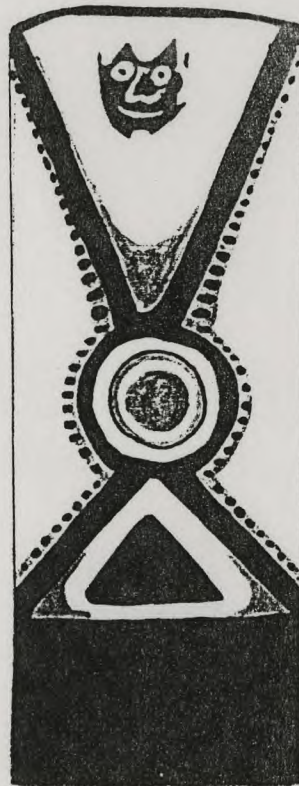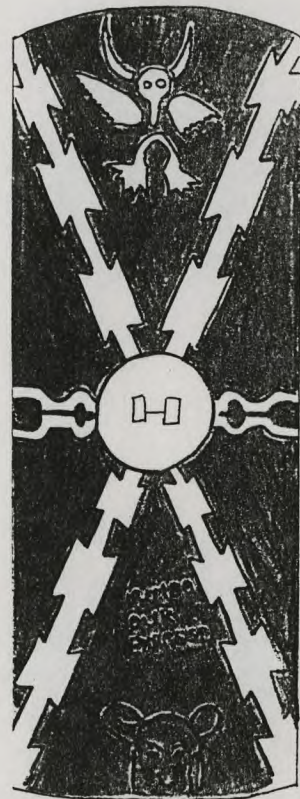
Plate I. The shield designs from the Gukmol Battlefield (1989). The Tause Kanem and Kamp Kanem fight bundles. (1st row; modern designs, B2/1, B2/2, B2/3. 2nd row: B2/4 Type 3 with fish symbol, B2/5 Type 3, B2/19 Type 3).
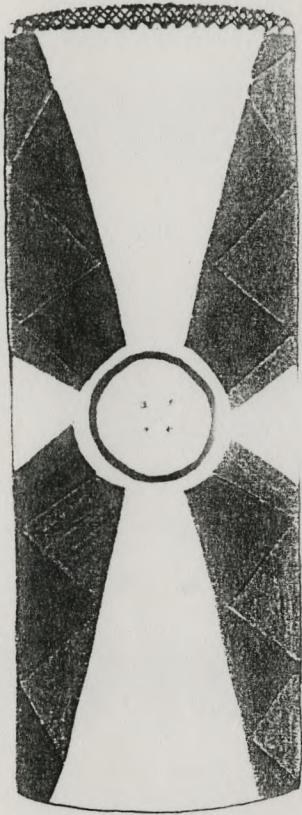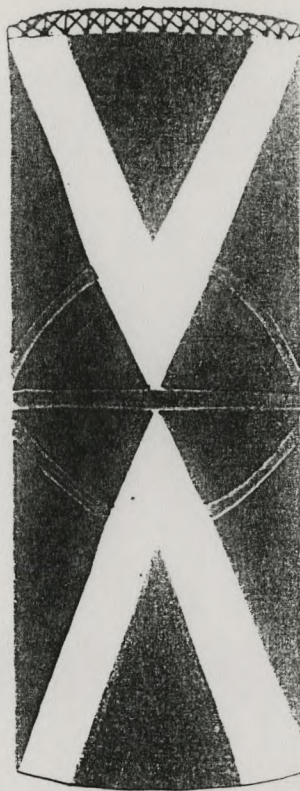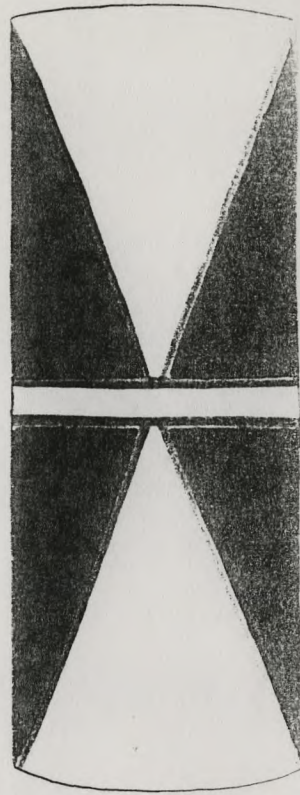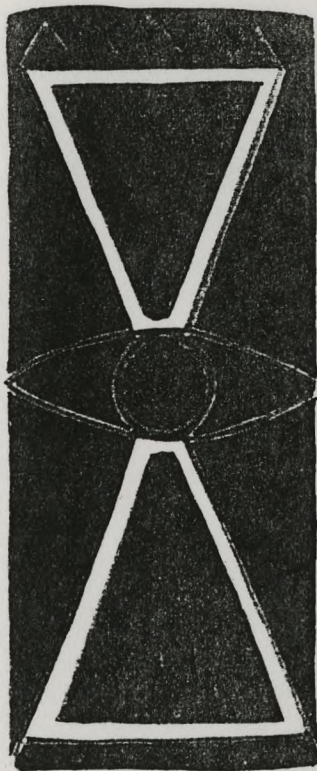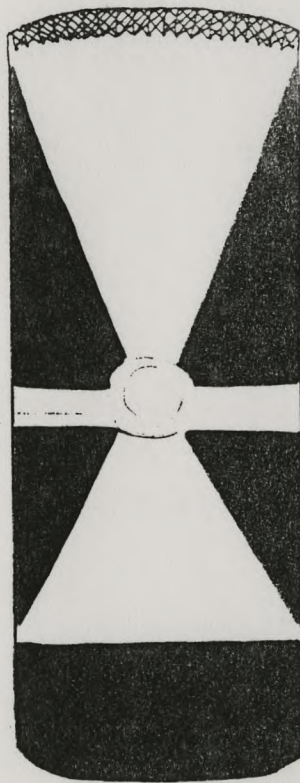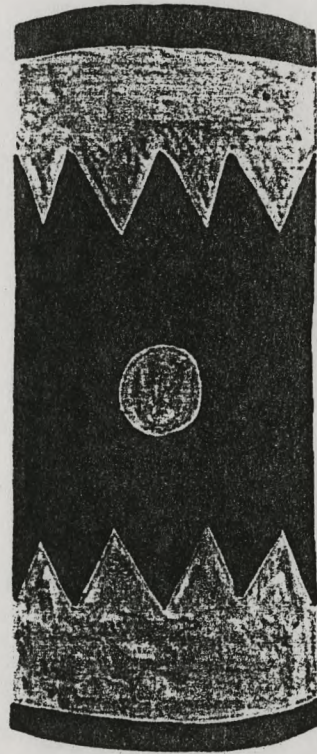
Plate II. The shield colour as a from of identification among the between fight bundles in the Gukmol Battlefield. The Gaime Kanem, Anjspa Kanem and Pong Kup fight bundle. (1st row; B2/11, **Type 3**, B2/13 Type 4, B2/15 Type 4 & 2. 2nd row; B2 10 Type 2 & 5, B2/12 Type 4 & 2, B2/28 Type 3).
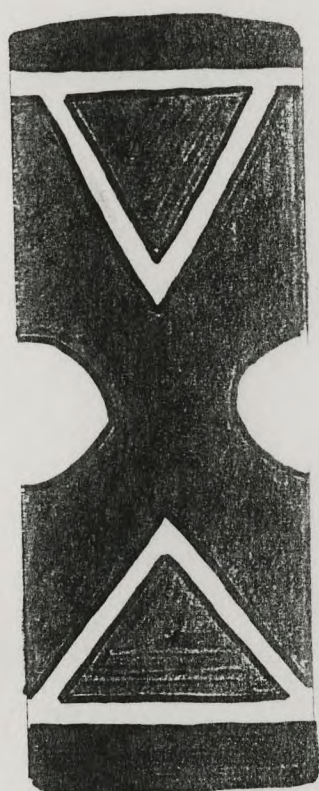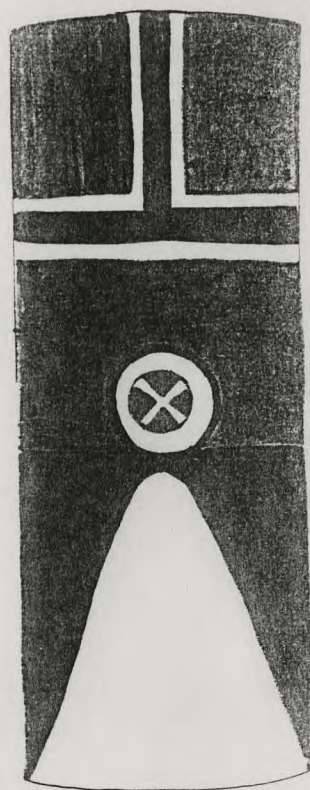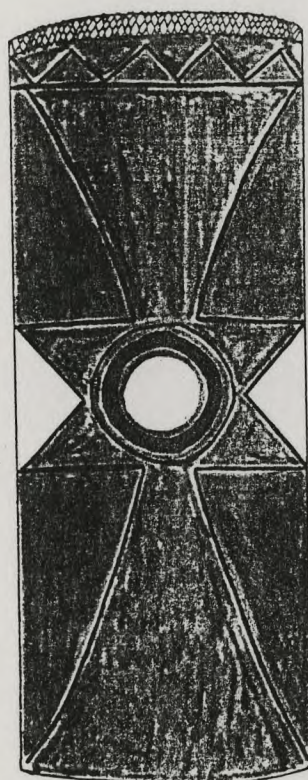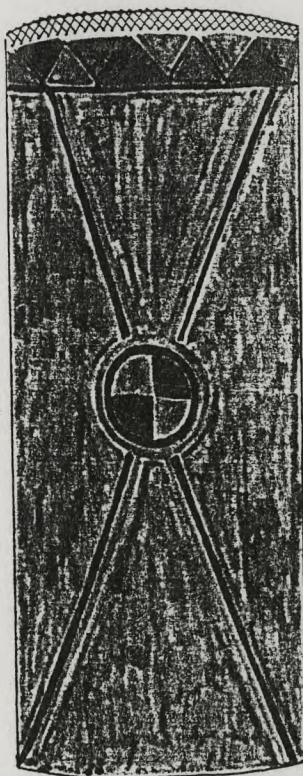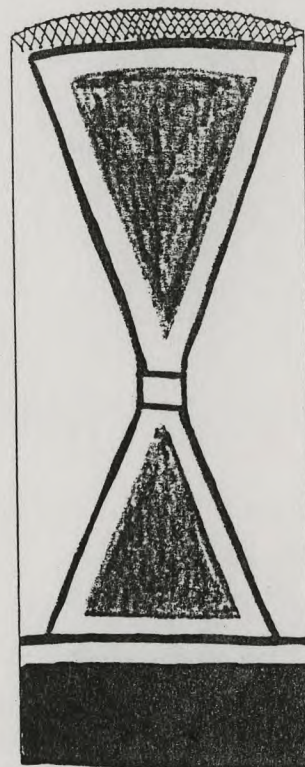
Plate III. The shield design and colour from Kamang battlefield (1987). The green coloured shields used by the Ngok Kanem and Tau Kanem fight bundles are of ambiguous design. (1st row; Type 2, Type 3 & 7. 2nd row; B5/13 Type 3 & 5, B5/14 Type 3 & 5, B5/15 Type 4).
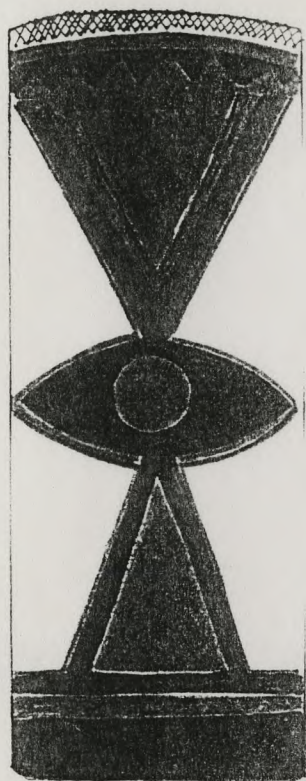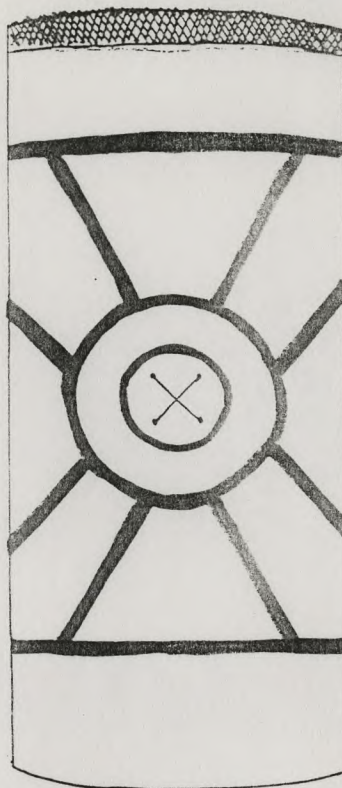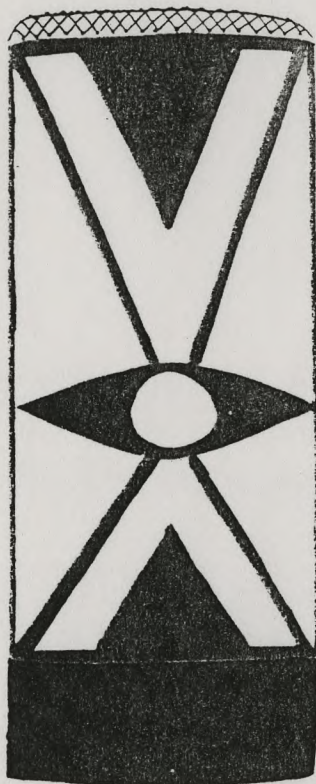
Plate IV. The shield designs from the Kopanka of Tapia region. These contain a range of designs, some of which do not fit in my general classification. (1st row; Ka/7, Ka/22, Ka/23 are often classified as *Dumo;* the oval shape design at the navel of the shield. 2nd row; Ka/21 is often classified as *Kong maiam.* Ka/7 falls also into Type 5. Ka/8 is a combination of Type 2, 3 and 5).
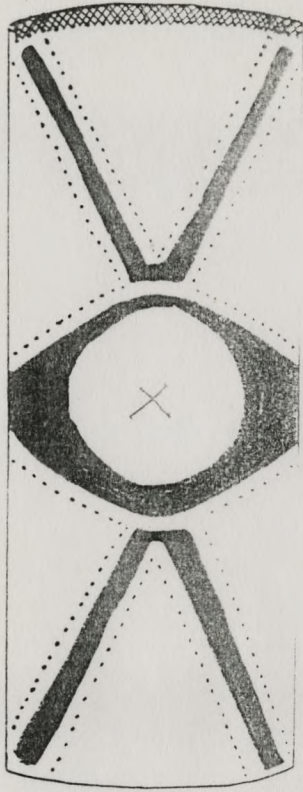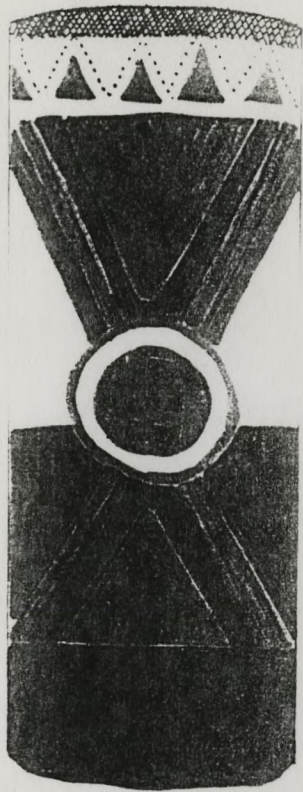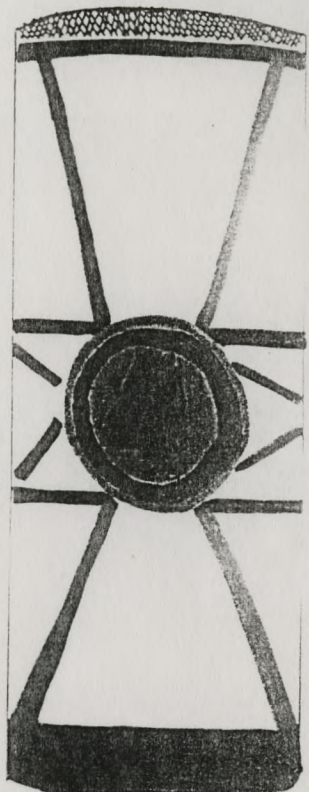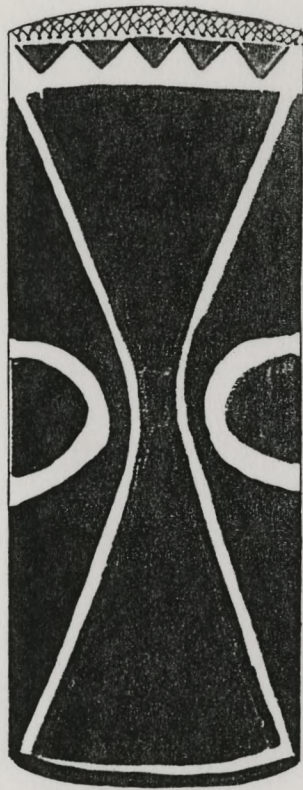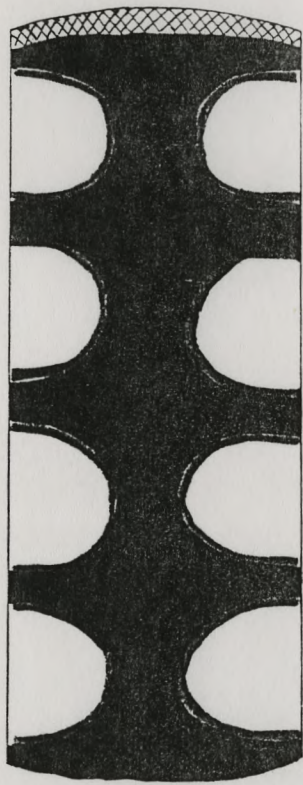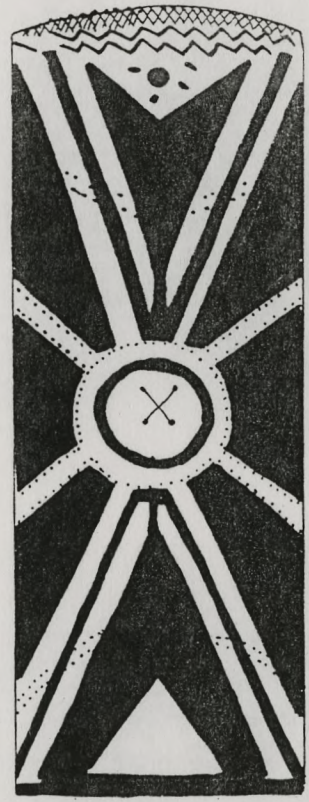
Plate V. The shield designs from the Golikup of Tapia region. (1st row; Ka/15 & Ka/10 are Type 3, Ka/14 is Type 5. 2nd row; Ka/12 Type 4, Ka/11 Type 6, Ka/13 Type 3).
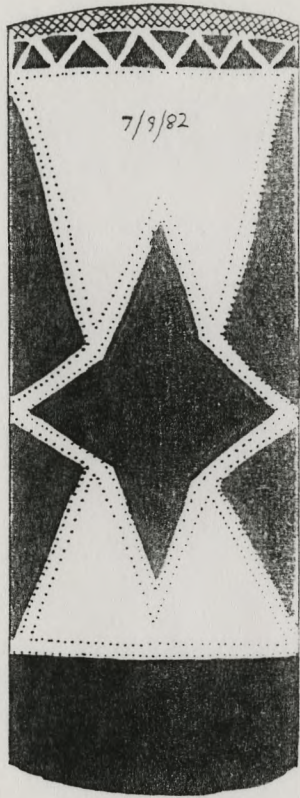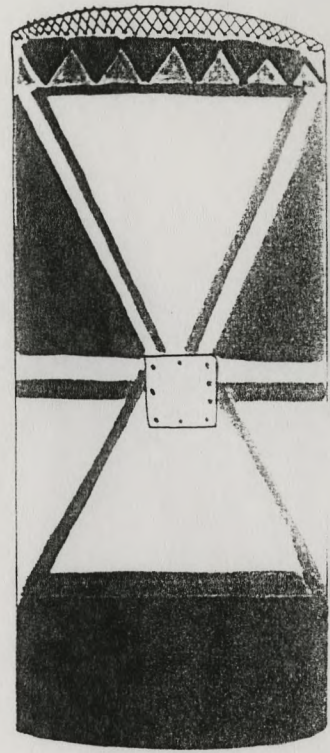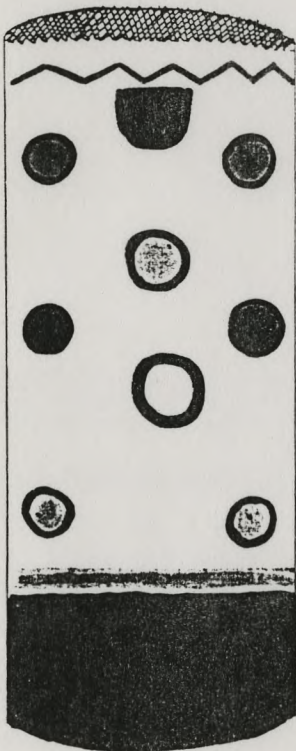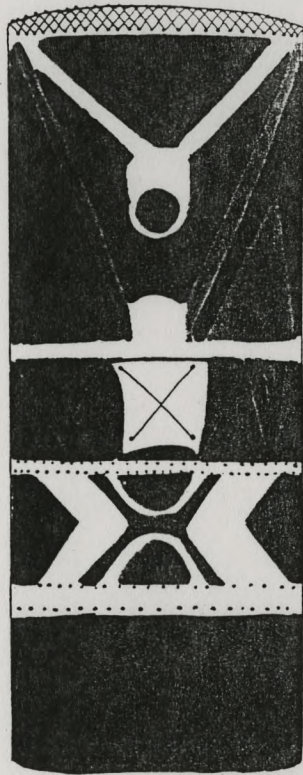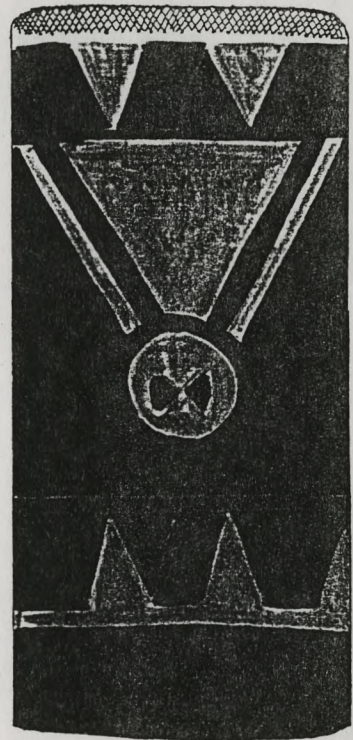
Plate VI. The shield designs of the Tangilka of Tapia region. (1st row; Ka/21 Type 8, Ka/22 *Dumo* & Type 7, Ka/23 Type 4 & 5. 2nd row; Ka/32 Type 6, Ka/33 Type 2 & 7, Ka/34 Type 7).
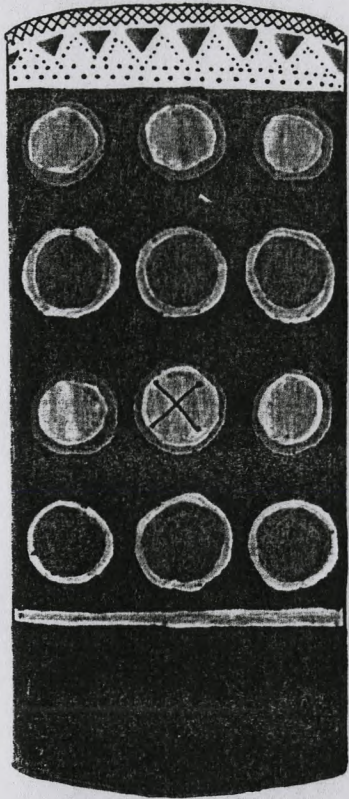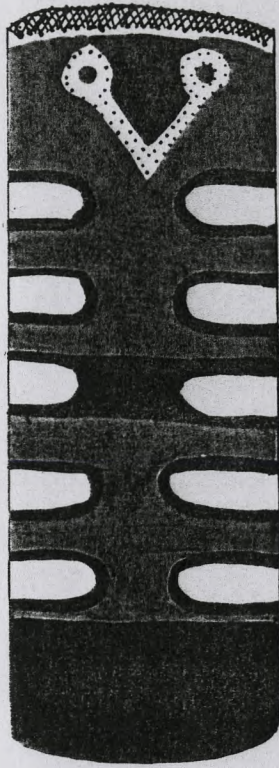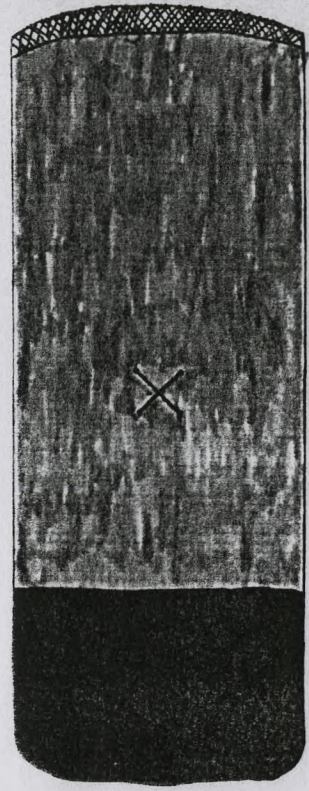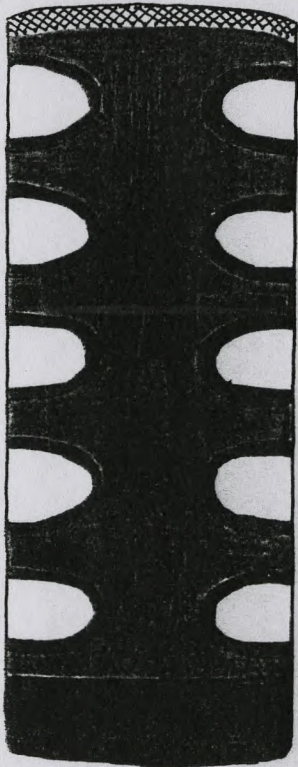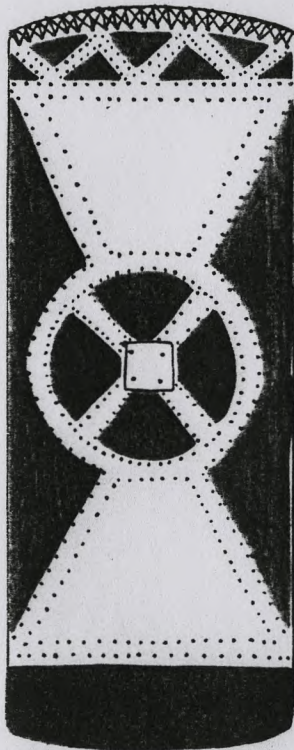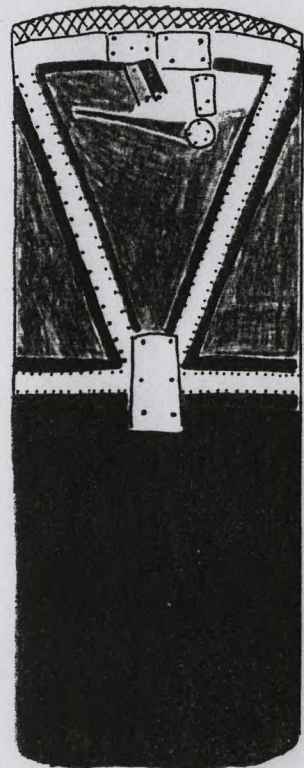
Plate VII. The shields designs of the Tangilka of Tapia region. (1st row; Shield Ka/26 & Ka/27 Type 6, Ka/28 Type 2. 2nd row; Ka/29 Type 6, Ka/30 Type 3 & 5, Ka/31 Type 7).