REMEMBERING

Papua New Guinea
REMEMBERING Papua New Guinea

An Eccentric Ethnography

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Cover: It was a day in 1965 while I was taking photographs with one of my cameras that Kaban — a Bomagai man with a deep sense of humour — spontaneously seized my other camera and mimicked my stance, thus begetting an image that delights me still.

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Dedicated to the memory of Marek Jablonko,
who died during this book’s preparation

And to Marek’s wife Allison, who survives him.
Marek and Allison worked in the field of visual anthropology
in the Maring community adjacent to the Bomagai-Angoiang
and knew and loved some of the persons pictured in this volume.

Also to Georgeda, Skip, & John

And to all the people native to the great island of New Guinea
who graciously allowed me to photograph them and their homelands.
Because in a way this book had its inception 40 years ago, I am not sure where to begin to acknowledge the many people who played a part in its slow creation. It does seem right to me, however, to start forty years ago and pay brief tribute to two of the twentieth century's great geographers: Clarence Glacken and Carl Sauer. I was fortunate to have them as mentors during my postgraduate years at Berkeley, and both were members of my thesis committee. Their breadth of scholarship and their humane outlook on land and life have influenced me ever since. Further, to Carl Sauer I owe my original interest in geography as a field of study — a stimulus that led me to change, in the sense of belonging to a formal discipline, from Anthropology to Geography.

I am also in debt to all the anthropologists of the Maring, especially to those who were co-members with me in the 1960s in the National Science Foundation project entitled 'Human Ecology of the New Guinea Rainforest'. Of those anthropologists, it is to Roy Rappaport and Andrew Peter Vayda that I am most indebted. Geographer John Street, with whom I worked together in the Simbai and Jimi Valleys for six months, was an unfailingly good companion, who also taught me a great deal about tropical plants and crops.

Other scholars of Papua New Guinea and other Pacific Islands who have over the years shared their knowledge on topics discussed in this book, and in some cases have made helpful comments directly on earlier drafts, include: Bryant Allen, Wal Ambrose, Mike Bourke, Harold Brookfield, Ralph Bulmer, Sue Bulmer, Derek Freeman, Jack Golson, Epeli Hau'ofa, Robin Hide, Diana Howlett, Ian Hughes, David Hyndman, David Lea, Eugene Ogan, Edward Schieffelin, Paul Sillitoe, Andrew Strathem, Randy Thaman, Eric Waddell, R. Gerard Ward, and others who do not presently come to mind. And special thanks to Dr Jean Kennedy for her always perceptive and helpful comments on both style and content.

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The book was largely written while I was a Visiting Fellow in the Resource Management in the Asia Pacific Program in the Research School of Pacific and Asian Studies at The Australian National University. I am most grateful to these institutions for the office space and other facilities that they made available.
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Preface

Remembering is a partial process, which is fortunate — for remembering everything would be unendurable. Our minds select only parts of the whole of any happening for storage or for recall — and what is remembered passes through the filters of our prejudices and preconceptions. Today, it troubles us to know that our memories are partisan, and it is fashionable to brood about how the omissions and distortions diminish or discredit acts of remembering. I do not disavow these misgivings, but in this volume I have put them aside because my purpose here is not to reach some mirage of accuracy or wholeness — it is to allow the photographs to speak as they will through the medium of my imagination and my concerns.

I took most of the photographs in 1964 and 1965, when I lived for a year in the Simbai and Jimi Valleys, which are separated from each other by the Bismarck Range. This is a part of Papua New Guinea where the heavily peopled broad valleys and basins of the Central Highlands fall away in a series of forested ranges to the lowlands to the north. It is rugged country, whence the water falling on the mountain slopes drains away north-westward through the Yuat River to the Sepik River or else north-eastward through the Simbai River to the great valley of the Ramu and Markham Rivers. To anthropologists, the Simbai and Jimi Valleys make up a part of the ‘highland fringe’, the name given to the rugged, forested zone that borders the Central Highlands on their northern and southern sides. It is an area where settlement is sparser than in the Highlands proper, where traditional ceremonial networks and activities are less elaborate than in the Highlands, and where malaria and other tropical maladies are more common. In a sense, it was remote or back country even in traditional times. Now, it is often even more so, lacking government services and having only poor transport facilities, with some previously built roads now deteriorating.

I first entered the region in the middle of 1964, landing in a single-engine plane on the grass-covered strip at the Simbai Patrol Post, then manned by kiaps (patrol officers) of the Australian-administered Territory of New Guinea. With an Honours degree in anthropology and a Masters degree in geography, I had come to Simbai as a member of an anthropological-geographical research project titled ‘Human ecology of the New Guinea
The project had been initiated by anthropologist Andrew Peter Vayda, who, in 1962 and 1963, together with four postgraduate students, carried out research among the Maring-speaking people, who occupy the lower Simbai Valley and an adjacent part of the Jimi Valley across the Bismarck Crest (Map 1). Among other things, the anthropologists sought to understand how an isolated horticultural people adapted to their environment. To this end they gave special attention to features of Maring ritual and social behaviour that seemed to have ecologically adaptive functions. The major outcome of their work was Roy Rappaport's *Pigs for the Ancestors*, published first in 1968.

Because the anthropologists believed that they lacked sufficient information on Maring environment and land use, they proposed collaborative research by geographers, which the late John M. Street (from the University of Hawai‘i) and I carried out in 1964. For five months we appraised the agricultural practices, climate and conditions of the vegetation and soil of several Maring communities, some of which had relatively little land in proportion to the size of their population and some of which had extensive tracts of unused land available. We did our research in order to provide the anthropologists with information as to how much human use had changed the natural environment of the territories of different Maring communities. In turn, so the idea was, the anthropologists could use this information to judge whether or not different levels of population pressure determined Maring social behaviour. In truth, Dr Street and I came to think the anthropologists overvalued the idea of land having a set carrying capacity and took too static a view of the possibility of agricultural change.

So, while our geographic investigation was not very helpful to anthropological theorising, I gained enormously from the survey research, becoming familiar with almost all the communities of Maringdom and gaining a detailed knowledge of Maring agriculture and spontaneous vegetation. After John Street departed from the field, I remained alone for seven months, focussing my PhD research on a single community that I had found most congenial during the survey. Looking back, I realise now that I was attracted to this particular community — which was made up of the Bomagai and the Angoiang clans affiliated as a clan-cluster of 134 people —
because it was the most remote of the Maring communities. It was the furthest from the Simbai Patrol Post, far east down the Simbai Valley adjacent to a large stretch of uninhabited forest. Most of the photos in this volume are of the Bomagai-Angoiang people, taken in their home territory, which I named the Ndwinba Basin because of the amphitheatre-like shape of the territory, which was drained by a fast-flowing stream called Nink Ndwinba by the Bomagai-Angoiang, nink meaning water in Maring.

Like other anthropologists or geographers in such a fieldwork situation, I spent most of my daylight hours walking with one or another or several of the Bomagai-Angoiang, talking — in my case — about their gardens, their fallow vegetation, their use of wild plants, how they hunted, how they cared for their pigs, how and where they built their houses, how they gained access to garden sites, and so on. At night, on a shaky table of saplings and bamboo, I wrote up my field notes by the light of a kerosene lantern. The results of these efforts were published in 1971 in Place and People: An Ecology of a New Guinean Community.

Since the Bomagai-Angoiang had been contacted by Europeans (in the form of an Australian administrative patrol) for the first time only in 1958, six years before I lived with them, none yet spoke Melanesian Pidgin, or Tok Pisin, when I arrived. Later, the first set of contract labourers who had worked for two years on coastal copra plantations returned to the basin, having learned Tok Pisin on the plantation. Before they returned, I employed a man from the Jimi Valley (which Europeans had entered earlier than they had entered the Simbai Valley) to interpret (tanim tok) between the Maring language and Tok Pisin. By the time I left the basin I could catch the drift of simple everyday conversations in Maring but could speak only in a rudimentary way.

In 2003 as I look at the photos I took 39 years ago of the Bomagai-Angoiang and their homeland, I think how their world as I knew it then is disappearing. By chance, a few days before starting to write this preface, I picked up Bronislaw Malinowski's two-volume study of Coral Gardens and Their Magic, part of his massive output of writing on the Trobriand Islanders based on his research there between 1915 and 1918. In the book, which was published in 1935, Malinowski writes about how fortunate he was in his
research on garden magic to have as his collaborator one of the leading garden magicians, a man called Bagido'u, who, wrote Malinowski, was a naturally gifted man. Not long after Malinowski left the Trobriand Islands, Bagido'u died, leading Malinowski to write later in his preface to Coral Gardens and Their Magic that when he looked back on his work with the gifted magician, 'I often feel that he must have had some dim recognition that he was the last repository of a vanishing world. He was so keen to give me the right understanding of his magic; he spent so much time and real care on seeing that I had the correct wording of the spells and had grasped their meaning — that in a way I think he knew that he was leaving them to posterity'.

Although Bagido'u may simply have thought that if you are going to teach someone spells, you had better be sure they learn them flawlessly, nonetheless a generation or two later Malinowski can be taken to have expressed a feeling or a belief still common among those of us who have spent time coming to know the lives and ways of tribal or indigenous people. Their immense knowledge of the natural world and their relative autarky is vanishing, or already has vanished. In this volume I try to pay homage to the people I knew then — people who taught me so much about their world — and to depict through the photographs a little of what their world was like. Also, some of the photographs spoke not only to my memory but to some of the concerns we grapple with today — often because the photographs reflected a contrast to conditions of the present day.

Those readers familiar with Papua New Guinea and Irian Jaya (currently known as Papua) — the Indonesian-held part of the great island of New Guinea — will recognise that even though my major focus is on the Maring speakers (especially the Bomagai-Angoiang), some of my photographs were taken elsewhere in New Guinea. These photographs serve in part to illustrate the great diversity among the peoples of New Guinea as well as offering further stimulus to my recollections and musings. None of the photographs were taken later than 1977.

Because my descriptions of the Bomagai-Angoiang and other Maring peoples focus mostly on their lives as they were in 1964, they cannot accurately represent the present-day scene. During the past four decades of their history, the peoples of the Simbai and Jimi Valleys
have been subject to the troika of colonialism, Christianity and capitalism. And, in 1975, Papua New Guinea became an independent country. I include some of what I observed about the people's responses to these influences and introductions up to 1977, the year of my last visit to the Simbai Valley. I also venture comments that relate to Papua New Guinea today but these are based on secondary sources and personal communications. As for the Bomagai-Angoiang today, all I can really know is that the way they live now must, at least in some ways, be quite different from their lives when I was first fortunate enough to stay among them.

William C. Clarke
NOTES AND SOURCES

For some of the photographs and their accompanying mini-essays academic scruples demanded that I provide references and further explication for those readers who might want to pursue a topic more deeply or who wondered about my sources. These additional materials are to be found in the Notes and Sources section near the end of the book. A Bibliography of the references makes up the final section.

TECHNICAL NOTE

The photographic equipment I used in the field in 1964 and 1965 consisted of two standard single-lens 35mm Pentax cameras and a separate Weston light metre. Looking back, I see the advantage in having equipment that did not require batteries to operate. The film used for the colour photographs was Kodachrome slide film. The black-and-white photographs were taken with Kodak Plus-X film. The colour photographs in this book were taken from a CD-ROM titled Faces of Papua New Guinea, which was designed and produced by Josepha Haveman of Image Circle Media in Berkeley, California, USA, primarily as a way to restore and archive my original slides, which were faded and fungus-stained from their life in the tropics. The original slides were digitised by Kodak and the restoration to the original colour and quality was accomplished with the use of Macintosh computers and Adobe's Photoshop application. The subsequent CD-ROM creation was then produced using Macromedia's Director program, which enabled combining the photographs with native music plus speech and texts by William Clarke. The completed project was published on CD-ROM by Wayzata Technology Inc. of Minnesota, USA, in 1995. For further information about the CD-ROMs, a limited number of which are still available, send an e-mail to JH@imagecircle.org.
THE MARING AND THEIR NEIGHBOURS
Learning from Ngirapo

Letter to Him

Ngirapo, I first met you in 1964 when I arrived in the Ndwinba Basin, your home territory in the lower Simbai Valley. During my earliest anxious hours as I was trying to explain to the assembled throng of people from your community why I wanted to stay among them, you were the first person to emerge as a distinct individual. Flamboyant, you strode forward from the crowd, hugged me, and lifted me from the ground, then stood, your legs astride, broadcasting a welcoming oration, expressing delight that a white man was coming to stay with the Bomagai-Angoiang, your clan-cluster. It would be good, you said, because I would bring stick tobacco, steel axe heads, matches and other trade goods; in return your people would help me by telling me about their gardens and the basin’s trees.

And so it happened, with you becoming my keenest teacher, ready to share your specialist knowledge. Over many days, as you and I walked through the forest and lingered in gardens and orchards, you taught me about the geography of your place and the lives of the Bomagai-Angoiang. You were always tolerant of my naive and incessant interrogation, but sometimes you would amuse yourself by hooking me with a tall tale until your jubilant grin gave the game away.

You knew about all the plants and animals of your realm — that is, you possessed in abundance what geographers and anthropologists call ‘indigenous knowledge’ or ‘traditional ecological knowledge’. You told me about hunting, about gardening, about the usefulness of many trees, and, later in my stay, about kunda, a kind of ecological magic some men use to make their gardens grow better or to control the weather. You revealed a world now gone — that of your young manhood, when you knew almost nothing of what was beyond the Jimi and Simbai Valleys, when you had only stone axes to use for felling or girdling trees. You told me how your clan and its allies fought with other clans, how in defeat a clan might run away from its ancestral land. With great gusto you demonstrated how warriors rushed forward and then retreated as they fought, their spears or bows and arrows at the ready. You gave me a glimpse of what life in your place was like before the modern global world intruded, as it now has everywhere. You would not see it this way, but you stepped out of the Neolithic period into the twentieth century.
Ngirapo, a Bomagai bosboi — bosboi being an important, knowledgeable man. He is smoking trade tobacco that I had supplied, but tobacco plants are ancestral in New Guinea, probably introduced by Europeans, perhaps in the sixteenth century.
The people, their place
A Letter to Ant'wen

I wish, Ant'wen, that you could know that this photograph is a favourite of mine. What delight, joy, you seem to feel as you admire the Pandanus fruits developing on a tree in one of Ngorapo's orchards. The more I learned about those orchards, which together with gardens and various kinds of forest make up the ever shifting and merging mosaic of your landscape, the more I came to appreciate how adroitly you and your people had created rich resources of food and materials. This skilful management rested on a sense of continuity of occupation — of making and maintaining a fruitful environment not only for yourselves but for the oncoming generations. I remember how once while you and your husband Ngorapo were planting trees in an orchard, I asked Ngorapo how long it would be before the trees bore fruit. He replied that he might be dead by that time, but his sons and their wives would have food to eat. My query was a quest for one more fact; his response revealed an understanding of how his current actions contributed to the future bounteuousness of the land.

As I look back at my field notes, I see that in 1964 you and Ngorapo had six children, three sons and three daughters, ranging in age from about three to 18 years. Like most Maring men, Ngorapo lived in his own house with the older sons and had built a separate house for you, where you lived with your unmarried daughters — and where your sons would also have lived until they were six or seven years old. Although wives of the same man often share a house, Ngorapo had built a separate house for Kuka, his younger, more recent wife, with whom he had two young children. Kuka's house was in a different hamlet, at some distance from yours because, as people told me, you were a 'strong woman' who had beaten Kuka with a stick, not wanting to share Ngorapo's gardens or pigs with the younger woman. I could tell you now that anthropologists have written that such strife is not uncommon among co-wives in highland New Guinea. But even though you were angry, you understood, as Ngorapo explained to me, 'a man wants many wives because he wants many pigs and many children, who will grow up, marry, and work in the gardens'.
An Eccentric Ethnography

Ant'wen, who came from the Maring community of Kwima in the Jimi Valley to marry Ngrapo.
Love and marriage
To Maring girls before they marry

How delightful I found you — you were flirtatious and shy at once, often mischievous, you showed a maturing sensuality and an enjoyment of self-decoration (you would eagerly offer me a few puny sweet potatoes in exchange for a handful of trade beads). As I lived in your community, attending some aspects of your lives, I thought of the once widespread belief that romantic love was a European peculiarity, something invented by medieval troubadours filled with ideals of chivalry, singing lyrics of endless devotion to idealised womankind. But you knew differently. Like all humans, you succumbed now and again to adoration and erotic intoxication, which brought to you the usual mix of joy and pain, promise and disappointment.

Among you girls, love and marriage ran no smoother than in my own society. Never mind that you and your husband might quarrel, difficulties could be expected simply because your marriages — like marriages everywhere — had both social and economic meanings. Your marriages always engaged two clans because all girls must marry out of the clan of their brothers and fathers, thus establishing an enduring relationship between your husband and his kin on the one side and you and your kin on the other. Frequently, that link is strengthened when your husband’s sister is ‘backed’ in marriage to your clan, often to your brother. But a simple exchange of brides was never sufficient in calculations of reciprocity. Bridewealth, or brideprice, which is what anthropologists call the payment for your fertility, your substance and your gardening abilities, had to be negotiated between the men of both clans. And negotiated again and again throughout your life.

Amid this business of your fathers and brothers — the exchanging of women and goods, the giving and accepting of bridewealth, the formation of political alliances — you unmarried girls went about your business of desire, attraction and attachment. Since you could not marry or be intimate with your clan brothers, who were the young men around you as you grew up, you met eligible men when traders or visitors passed through your land and especially when the people from many clans came together at festivals (singsing in Melanesian Pidgin/Tok Pisin).
An unmarried Angolang girl, who will soon marry and leave her mother, father and siblings to move to her new husband’s home community.
Courting parties
More on love and marriage

Festivals often include courting parties although these can also take place at other times, often as a kind of house-warming when a new women’s house has been built. The girls and the young men, some of whom may already have a wife, gather at the party house at night. Older women and men and young boys may also attend as spectators or chaperones and to join in the singing. The girls at first stay in the back compartment of the house while the men sing romantic songs to entice them forth. When the girls emerge, they are joined by the young men. The couples sit close together, facing each other, and the girl puts her legs across one of the man’s thighs. In a stylised way the couples then press their noses and foreheads together, duck their heads and turn them so as to bring their cheeks into contact — a movement known as ‘turning head’ (tanim het in Tok Pisin). The parties, which can last for hours or sometimes all night, are also known as karim lek (‘carry leg’).

A few times I sat in on courting parties as an onlooker, but I remember more vividly how one night I stood outside a low, shaggy Maring house where a courting party was under way. As I listened to the high-pitched nasal singing that accompanies karim lek, smoke from the hearth fire inside drifted through the grass roof, barely visible in the dark outside but redolent with the fragrance of wood fires, crowded bodies and the pig fat and oil used to make the skin shine attractively. These sounds and smells in the night brought for the moment a sense of a community in rapport, one that would reproduce itself compatibly through generations.

But I learned that sometimes a girl falls in love with and wants to marry a man who does not fit with the political and economic schemes of her father, brothers or other senior men of her clan. Fracas follows. Tears and obstinacy on the part of the girl; threats or actual beatings from the men. If the deadlock persists, the girl may resort to suicide, hanging herself or throwing herself into the swift and turbulent river at the bottom of the valley. Or, if forced to go in marriage to the place of her husband’s clan, she may repeatedly run away to the home of her birth.
When I lived with the Bomagai-Angoiang almost everyone smoked, even toddlers. This mischievous girl accumulated her trade beads by selling me sweet potatoes.
Riaui, you were a young woman only recently married when I met you. You seemed a serious, perhaps somewhat sad, person but happy enough to decorate yourself with trade beads and to be always ready without diffidence to tell me about your garden and other aspects of your life. You had come to the Ndwinba Basin only a year or two before from the nearby Fungai clan to marry Kumant, a man of the Bomagai clan. You and Kumant did not yet have any children because, as an older man explained to me, you were still young — and a bride's first task is to show her new community that she is a good gardener. In 1977, when I returned to the Ndwinba Basin, Kumant had died, probably of pneumonia, while visiting his sister in the Jimi Valley, where she had gone in marriage. Unlike some widows, you had not returned to the clan of your birth but had stayed on with your dead husband's clan, living in your father-in-law's hamlet, where your mother-in-law helped you look after the two daughters and one son that were your children with Kumant.

As I mused on your life, Riaui, I thought of the trial and joys we all face in the chronicle of our lives: our discoveries during childhood, falling in love, leaving home, marriage, conflict, work, intimacy, caring for children, loss, giving and receiving support. But since I am trying to be accurate in what I write about the people of Papua New Guinea, my desk is littered with anthropological texts and ethnographies. In these works I find things described that you would know about from your own life even though the reality of individual experiences is hidden behind terms such as affiliation dramas, the expression of individual agency in the face of larger processes, and the generation of co-substance ties. Those outsiders, like me, who came to live among and study your people debate these topics and seek to fit the actions of individuals into what we call a theoretical framework. Nothing is wrong with such a way of thinking — it can bring understanding, it may show through the actions of individual men and women themes common to their way of life — but how easy it is for us to become presumptuous, to convince ourselves that we understand people's lives because we have made an explanatory model of their culture or their society.
Riaui, wife of a Bomagai man.
More to Riaui

How glad I was, Riaui, when I looked back across 37 years at the photographs — one of you gazing at me as I held my camera and one of you planting your new garden with a digging stick — that the first memory I had was of a young woman alive in her garden on a sunny day — someone who had thoughts and feelings I can never fully know, whose life within her society I can never wholly grasp, but with whom I felt then and now an affinity resting on our shared human existence on Earth. This led me to remember how Kenneth Read ended his book The High Valley, in which he describes in an unusually personal way the two years of anthropological study he undertook in a village in the Eastern Highlands of Papua New Guinea in the early 1950s. As Read was departing the village at the end of his stay, Makis — a village man who had been Read’s major informant and deepest friend — embraced Read, who relates in his book how he returned the embrace and how he hoped Makis now found ‘in the pressure of my hands, the only gift I have, the only one I need to receive’.
The digging stick, or dibble, that Riaui holds is every woman's essential gardening tool, equivalent to a man's axe. It is used for weeding, to loosen the soil and to make holes for planting sweet potato vines, taro tuber tops and most other crops.
As I look at the photograph of you three wives setting off in the morning like commuters, I remember how often I came upon you working in your gardens. Before you married, you had a fairly easy life. You helped your mothers and other older women with their gardening and learned gardening techniques but were not responsible for making the garden fruitful. Then, after you went as a wife to the land of your husband’s clan and some brideprice had been paid, heavier burdens fell upon you.

It is not wholly true that you wives do all the hard work. The men contribute to gardening intermittently and work hard for short periods clearing forest for gardens and building pig-proof fences. What you women do is the steady work of maintaining the life of the community day by day. The photograph shows you walking lightly with empty string bags on your journey to work. Before you return you will spend several hours planting, weeding and harvesting so that you can continue to provide a daily supply of vegetable food for your family and the domestic pigs. And, on your return, the food-filled string bags hanging down your backs may weigh more than 30 kilograms and must be toted on rough and slippery tracks up and down steep slopes. Once back at your hamlets, it will be time to start preparing the food for your families and to feed your husbands’ pigs, which come back from their daytime foraging to their pens in your houses expecting an evening meal.

Although I heard husbands and wives accuse each other of laziness, I seldom sensed that any of you women felt resentment over the distribution of work. Nor did I sense among any Maring groups the extremes of dark sexual politics or the ambiguous mix of fear and dependence with which New Guinean men are widely reported to view women and their dangerous sexuality. Perhaps I was naive or else so focused on agricultural and ecological matters that I gave slight thought to more social matters. Certainly, the sexes sleep apart in separate houses, and women must not enter men’s houses — a common situation in New Guinea. Because you are not tied by blood to your husbands’ clans, men may be uncertain of your loyalties and see you as dangerous, unreliable and liable to practise witchcraft. Nonetheless, I saw expressions of gentle affection among several couples. It was also clear to me that you wives were seen as a resource: you bear children, you maintain gardens and care for the pigs. You also serve as a valuable link between your husband’s clan and your kinspeople by blood — although, as Highland people often say, ‘We marry our enemies’. That is, given the shifting political alliances traditional in Papua New Guinea, it happens easily that a wife finds herself attached to a clan at war with her blood kin.
These women may need to walk for almost an hour to their gardens or they may work in one much closer, for every man has several gardens scattered within his clan territory. Travelling to and from these separated gardens keeps up people's knowledge of the state of their environment, where feral pigs have been and where an old garden site is ready to be used again.
The forest is the mother of the garden

To Kabang

Even though you were skilled with your axe, Kabang, I worried that you would suffer an accident standing on the flimsy scaffold of poles that you had tied together with vines so that you could cut the tree trunk above its thick buttresses. But I knew that you had to fell forest to open your new garden site to the sky, allowing sunlight to reach the crops.

To you, the forest was not an enemy, a challenge to be conquered, cleared away. As you once told me, the forest is the mother of the garden. The roots of trees enrich the surface soil, drawing up nutrients from deeper layers. Leaf litter decays into humus and nutrients — these remain after the forest is cleared, feeding taro, bananas and other crops. If the felled debris is burned, the ash, too, adds fertility to the soil. The forest adds 'fat' or 'grease' to the soil.

You knew that when the forest grew back on an old garden, the shade cast by the trees subdued garden weeds. And because the forest habitat provides no food for garden pests, they die out. You and many other people told me that, aside from building fences to prevent pillage of the crops by pigs, the most arduous task of garden care is weeding, but it is not done to discourage forest from returning as fallow. Only fast-growing grasses, weedy vines and some weedy trees are pulled out. Many tree seedlings are left to grow, some day to nurture another garden for daughters and sons yet to come.
Before steel axe heads arrived, Kabang would probably not have attempted to fell such a large tree but would have ring barked the trunk with a small stone work axe, causing the tree to die and lose its leaves so that sunlight could reach the ground.
Firewood

In today’s industrial societies energy use is prodigal. Fossil fuels that took immense stretches of time to accumulate are consumed in minutes. This gobbling of the sun’s energy burns past time and pollutes future time — both in the present moment. In contrast, the Maring use energy modestly, and what they use has been formed during their own lifetimes.

In the photograph Ant’wen returns to her hamlet in the afternoon with a heavy load of firewood. Given all the wood available from trees felled to clear garden sites and from the natural production of dead wood in the surrounding forest, there is no shortage of firewood — but collecting and transporting it can be arduous. Men and women often pick up firewood on their way home from the gardens, and boys may be sent on firewood-fetching expeditions. In either case, the vine-bound bundles of sticks and logs, which often must be hauled up steep tracks, weigh at least 10 kg and more frequently more than 15 kg. Once I saw Rameka, a woman who weighed 43 kg, arrive at her house with 21 kg of wood, partly on her head, partly in her string bag. The fuel is used to heat rocks for cooking food in the communal earth ovens and for fires inside the house, with each household burning at least 10 kg of firewood daily.

Most people keep small fires or embers going all night in the hearths of their low houses. This keeps them warm while sleeping while at the same time repelling biting insects and smoking the leaves and grasses that form the roof, which helps to preserve the roof from rot and insect attack.
An Eccentric Ethnography

Ant’wen passes through a pandanus orchard carrying firewood for the evening’s use.
Nink Ndwinma

‘Water Ndwinma’ — that is, Ndwinma Stream

I do not know much about spirits
but believe that in Nink Ndwinma
dwells one of many moods.

The stream flows green and pure
enticing passersby to fill their hands
and drink, its water
soughs on a windless day,
a cool home for oil-rich eels, kobe,
caught in clever traps of woven bamboo
or speared at night by the light of pandanus torches.

It can be untrustworthy
or is it just untamed, not tractable,
growing wild with the fall of rain,
torrential, savage, surly,
a trench of charging mud,
cutting and carrying,
grinding giant boulders
along its hard-edged bed
to lodge again
lower down the stream,
animal goliaths formed of stone
freed by gravity and water
from their mountain prison.

When it is in flood,
and impossible to cross,
people caught away
from their home
on the far side
shelter in the houses
of kinsfolk or friends
on the near side
until the water wanes
to gentleness again.
The major stream in Bomagai-Angoiang territory. Its water was wonderful to drink. I came to trust my informants completely with regard to which streams were safe to drink from — they always knew.
A world without people contains no names

In his imaginatively rich book *Forests: The Shadow of Civilization*, Richard Harrison sets *res nullius* (belonging to no one), an ancient designation for forest, against *res publica*, the open, public place of human society and institutions — preeminently the city. And, as Alice discovered in the looking-glass world, the forest has no name, nor do the things in it have names. Similarly, for Aristotle, *hyle*, the Greek word for forest, also referred to primordial matter, something shapeless with only the potential for form.

The Bomaga-i,Angoiang, who live in a largely forested landscape, do not share the classical view of forests as places of wildness and danger, antithetical to human life. Nor would they, as the Plymouth colonists did, ever imagine forests to be ‘wild and uncouth woods’ that must be destroyed to make the land habitable. Because the Bomaga-i,Angoiang do not see the forest to be in any way hostile to gardens, settled hamlets and human occupation, they bestow names upon tracts of forest and so show them to be part of the human realm. Beyond that, it is also the case in Papua New Guinea and elsewhere in the tropical world that much of what to Western eyes may look to be ‘virgin forest’ is in truth a human artefact, a part of the known world already much affected by human enterprise.

Every hamlet, every ridge, every part of Bomaga-i,Angoiang land has been named, and there are ‘big’ and ‘little’ names, so that big Ndembiku mpf contains little Konjemuro and Mgam bant. The basin floor includes several parts with little names — Mbembria, Begarpe and others. Each of the four ridges on the eastern side of the basin — on each of which were hamlets during my stay — had a distinct name: Mwarmbong, Ngegama, Ženboi and Kuhl amakai. So, too, were all the streams named, becoming part of the song that people sing to the Earth, part of the way we mark the land as humanised.
Mature forest and younger secondary forest broken by a clearing for a house and garden. To the Maring eye, this landscape is divided by boundaries into named tracts, structured by history.
This low, shaggy hump of a house looks as though at any moment it might wander away to settle in another site nearby. And we would see something like that if we could fast forward our view. After a few years of living in a house, the residents abandon it and either burn it or leave it to rot and fall down. Since the houses are made wholly from local plants, in effect they do grow out of the local environment and then merge back into their surroundings.

People build new houses because the old ones are leaking too much and falling apart or because of sickness and fear of sorcery in the place where they are living. Moving often means that the Maring settlement pattern — which is one of scattered hamlets, not aggregated villages — is very fluid. When I first lived among the Bomagai-Angoiang, there were eight named hamlets, seven of them located on ridges, which were the traditional and favoured sites for houses. The smallest of the hamlets had only one men’s house and one women’s house, while the biggest had four men’s houses and nine women’s houses.

If we could fast reverse the settlement pattern, a pulsing would be visible, with a tendency towards houses clustering together followed by a scattering apart. Older men tell how there was a major concentration of Bomagai-Angoiang houses on the eastern side of the Ndwinba Basin for a while in the 1940s. Everyone had moved there so as to get far away from neighbours to the west with whom they had fought and also to work together to accumulate pigs for the ritual slaughter necessary to resolve the consequences of the fight. Then came an epidemic (probably dysentery or perhaps flu and pneumonia), which led people to disperse their houses widely again to get away from a place that had become ‘bad’, perhaps because some affront had angered ancestral spirits or because suspect neighbours had taken to sorcery.

My very presence in the Ndwinba Basin influenced many people to move closer to my house, which was located at the hilltop meeting place where the Australian Administration officers came to carry out the annual census — and where medical officers and evangelists occasionally visited.
In this and the next photograph, almost all the plants within the hamlet's grounds have a decorative or utilitarian use or both.
More about houses

The fronts of the houses are straight; the backs of many houses are rounded, with the sides of the house near the back often farther apart than they are at the front, so that to crawl inside through the low entrance — usually less than a metre high — is like penetrating a cave with a narrow mouth and an expanding interior.

The method and materials of construction of all houses are similar. Up to six large pointed posts are driven into the ground to support a ridgepole. From the ridgepole, rafters of saplings slope downward to the top of the low outside walls made of stakes or planks to which leaves or strips of bark are tied. Running parallel to the ridgepole, laths of bamboo, saplings or the split prop roots of a pandanus are laid along the rafters. The roof is then tied to the laths with vine. Many materials can be used for roofing: large leaves from pandanus, bananas, gingers and other plants; bundles of grass tied together; or a clever shingle prefabricated by fastening together two large bamboo leaves, each shingle then being hooked over a lath and overlapping the shingle below it.

The floors of the houses are packed earth, often covered with the peelings and spat-out fibres of the sugar cane that people eat at home as snacks and rainy-day food. Behind the rear ridgepole post there may be a low bamboo platform where people sleep either on the bamboo floor or on mats woven of pandanus leaves.

The small platform or 'table' by the house in the foreground of the photograph is an above-ground oven. Its plank surface is covered by a litter of leaves. Hot rocks taken from the fire are laid on the litter together with leaf-wrapped parcels of food (taro, sweet potatoes and such), which are then covered with more leaves to keep the heat in. It is not as efficient a cooking device as the earth oven in a hole in the ground but is simpler to use for cooking small amounts. Further, in some circumstances there are taboos against the use of earth ovens.
Because most houses are built on ridge tops, people must dig away large masses of soil to make terraces.
During the day

When people go to the garden or anywhere some distance away from their house, they close it up unless there are older children or grandparents staying nearby to watch over it. Although valuable bird of paradise plumes and other finery are stored in most houses, it is witchcraft or sorcery more than theft that people fear. If houses were left open, witches or sorcerers could come inside and steal personal belongings or exuviae that could be used in making harmful spells that would cause sickness.

The planks that 'lock' the pictured house could easily be removed by a would-be thief or witch but the planks make people pause before going inside because by 'marking' the doorway with an obstacle to entering, the owners hint that they may have left a spell against passing through. When I returned to the Ndwinba Basin for the last time some 12 years after this photograph was taken, some householders had learned about hinged doors and were making crude hinges with bent nails and pieces of leather or rope. These made it possible to hang a rough door of planks, which could be locked by means of an arrangement of bent nails and a flimsy tradestore padlock. I didn't think to ask then if such a way of securing the doorway could be further protected by a spell.
A house such as this, photographed in 1965, would now be uncommon as new styles of higher, squarer, ‘European’ houses have been adopted.
Becoming a person

Sitting on the doorsill, a boy watches over his younger brother while their parents work in the garden. This bond between younger and older children has effects both ways. Older brothers and sisters learn to care for younger children, as they will one day need to care for their own children. From their older siblings, the toddlers and younger children learn early on some of the ways of their people, such as the virtue ascribed to the giving and sharing of food.

By the time children are about three years old, they are expected to start acting like social beings. While they are still infants, they are only on the receiving end of things. As Bambi Schieffelin describes for the Kaluli people of the Great Papuan Plateau, babies are 'soft', their bodies are floppy, they lack control over what they do and they have 'no understanding'. A child's early development is referred to as 'firming up', which suggests gaining muscular control and strength, acting purposively and beginning to speak in a socially meaningful way. As both mind and body mature, the child is said to move from 'soft' to 'hard'.

Among the Maring, a newly born baby and an infant during its first years lacks nomane, which anthropologists of the Maring have defined variously as 'animated, immortal thought stuff', 'soul', 'custom', 'social wisdom' and as knowledge of procedures for the performance of certain activities such as the exchange of wives, food and trade items. In this last case, each clan is seen to have a different nomane because each clan has its own unique set of affiliations. Ancestor spirits guard the nomane and impart it to living people. Until young children are seen to have gained nomane, they are often not named; and, should they die, their death is not greatly mourned because they are not yet judged to be fully human — or, as we might say, socialised.
Today the boys are staying at home. On other days they will go to gardens with their mother and learn more about how to plant, weed and harvest. Or they will walk about with their father, learning about hunting and forest plants and where their father has rights to garden.
Ndop speaks

I am putting words in your mouth, Ndop; but when I looked at your photograph, I heard your voice telling me about yourself and the new garden you were clearing. You were a small but powerful man, with a serious mien. You worked hard at clearing your garden but would patiently pause to answer my questions.

Ndop is my name. I am a man of the Bomagai clan, a clan brother to Kabang, not a true brother. We do not have the same father and mother. I built my man’s house on Ngegema Ridge.

I am not an important man. I have only one wife. Her name is Yengam and she came here from Togban in the Jimi Valley, across the mountain crest — a long day’s walk. I have built her a woman’s house at Ngegema, where she looks after my three pigs and our three daughters whose names are Kwame, Terum and Abald. Abald is a very young child. She is still drinking at her mother’s breasts. Kwame and Terum are older but are still little girls.

My new garden is here at Kuhlamakai. I cleared it on this land. It is land that my father cleared when I was little. Kabang and other clan brothers helped me cut down the trees. We piled up the logs to make room for the crops. I will make a big fire, burn the rubbish and clear more ground, and Yengam will plant taro and sweet potatoes, and I will plant sugar cane.

Before the crops grow big, we will build a strong fence all around the garden. It would not be good if the pigs came in and ruined the garden. We would have nothing. We would go hungry.
In the background is the kind of mature secondary forest that grew over Ndop's garden site before it was cleared.
Returning to the land

To Klinga

I remember the morning when I stopped to talk with you while you were sitting in Tsenboi hamlet, enjoying the sunshine as the mist cleared. You said you were not going to work in the garden that day because you were old — you were going to laze near your house. Then you told me the same thing that I had heard from other older Bomagai-Angoiang men — that you were close to death, that soon you would be gone from the world of the living. The two young men with me agreed, ‘Yes, he will die soon.’

I supposed then that this calm acceptance of impending death must have arisen from the view among the Maring that death leads to decay which leads to fertility, birth, growth and death again, a cycle with no distinct beginning or end. It may have been you who told me that in traditional times before the Australian Administration banned the custom as unhygienic, your people first mourned over a man’s dead body inside the house and then laid the corpse out on a raised wooden platform, which was then surrounded with plantings of the ritually meaningful cordyline shrub, which bears long multi-coloured leaves. On the platform the body quickly rotted, melting away until only the bones remained. By this process, the substances that made up the dead person dripped back into the land whence they had originally come. Finally, the bones were buried in the sacred grove of the dead person’s sub-clan, where the ancestral spirits live.

When I returned 12 years after that morning when I talked with you, I heard that you had died of pneumonia several years before — but in a sense you are still part of your land. It is as though on that day when you sat in the sun accepting death you had said:

Some day soon the wind will rustle the leaves,
and I will pass from life to death’s decay
but I will remain in this place. My spirit will stay,
my body will feed the land that fed my fathers before me.
Klinga, a widower and man of the Bomagai clan. He is wearing an old string bag on his head.
Warfare

In contrast to several unceasing hostilities in today's world, in the late 1950s in the Jimi and Simbai Valleys the external force and authority of the Australian Administration halted the cycle of war and truce that had previously engaged neighbouring clans.

In the next few decades several ethnographers sought to explain the causes of Maring warfare, generally agreeing that the immediate goad to fights was an offence by members of one clan against the members of another. Offences included murder or attempted murder, theft of crops (especially of the pandanus fruit), sorcery, rape, insults and abducting women or welcoming and not paying brideprice for women who had eloped. Disagreement among the ethnographers arose over the deeper functions of war among the Maring.

One view was that wars adjusted population densities to land area. But this seems unlikely inasmuch as the victors in a fight were afraid to occupy the land of the defeated because the hostile spirits of the enemy's ancestors lived there. Rather than occupy the land, the victors destroyed the pigs, houses, gardens and orchards of the defeated and drove the survivors away to take refuge with a nearby friendly clan. Another view was that war protected clan land and people because it developed alliances with other clans, who would join your clan in the fight against a common enemy. War was also seen to preserve the manhood of the clan, thus ensuring the security of the land and its people. Or, as I often thought on hearing men tell vibrant stories about past fights, warfare was like organised sport, which operates according to set rules and rituals. Engaged in war, members of opposing teams (clans) experienced excitement and a unity of purpose, and individual men could prove themselves and gain much prestige as fight leaders and important men.

Warriors were admired when they were aggressive, strong and adorned with magnificent ritual finery like the stalwart young man pictured here. The bow and arrows he holds were the weapons wielded in 'small fights'. In more serious or 'true fights', the weapons would have escalated to axes and spears, which can be thrown or serve as a jabbing instrument. Painted wooden shields completed the tools of war.
The warrior’s bow is made of black palm wood, the string of bamboo and the arrow shafts of Miscanthus grass. His ‘fancy dress’ apron is made of traditional string rolled from plant fibres by his wife or mother and decorated with the fur of local cuscuses (Phalanger spp.).
Warriors

Potent and turbulent, a throng of men
rushing, drum their feet upon the dance ground,
chant and sing their accomplishments in war,
flaunt their raucous vigour, their shiny skins,
display their wealth in shells, tell of many
pigs and how bright leaves from ancestral ground
protect and strengthen the clan, its substance
passed in blood and semen from grandfathers
of their fathers, all nourished by their land.

Vanity and assertion are the form,
exultation as they dance, together
possessing the elating fellowship
of men that perish, returning to earth,
whence they came, hale confident warriors
joined to face what is yet to come, yet to
disperse their world into disparity.
The man in the foreground displays a large bailer shell breastpiece. Below it hangs the crescent-shaped kina shell, which lent its name to the country’s currency. Brightly coloured leaves hang from his waist; the wristpiece is made of woven orchid stems.
In harmony with the environment?

In my younger days, I would have believed that the Bomagai-Angoiang and indigenous peoples like them lived, or lived, in harmony with their environment. But no people live ‘in harmony’ if the term is taken to mean that human inhabitants are causing no disturbance to the natural order of their homeland or that they avow or avowed what Westerners might call a conservationist or preservationist ethic. Humans must disturb the natural order to survive. And, in many cases, the more the disturbance, the greater the profit, the greater the immediate benefit. It is true that the Bomagai-Angoiang did not cause great disturbance; their actions did not, for instance, lead to wholesale loss of forest. Why? Because they were few in number, their technology was weak and their agronomic management led to the recovery of forest as long as population density remained low. But they did not think in terms of a conservationist ethic.

One of my fond memories of my time with the Maring was the day I saw a man felling a large tree in his komung, his clan’s spirit-inhabited sacred grove. All clans, and often sub-clans, had their own komung, which were never gardened and where, it was said, large trees were never cut because that would anger the spirits, who would then bring sickness or even death to clan members. Perplexed at the contradiction, I asked the man chopping down the tree if he was not worried about what he was doing. He assured me everything was in order because he had sprinkled some water around the tree and uttered some propitiating spells before he raised his axe. Being an older man of some standing, he would have known the appropriate spells.

Because such felling was not then a common occurrence, the komung still provided the (unintentional) ecological benefits of serving as a source of seed for the recolonisation of rainforest trees in old gardens nearby and as a habitat for forest-dwelling birds and animals, which could, however, be hunted by the clan owners of each komung. Another pragmatic aspect of the Maring approach to komung was that all the komung that I investigated appeared to be in places unfavourable to successful gardens (stony ridge tops, poor sandy soils or places full of boulders). But if population was to increase or, nowadays, a young man acquired a much coveted chainsaw, I would not hold out much hope for the long-term survival of sacred groves.

Urban conservationists and green romantics may hold the belief that local native peoples want to preserve their natural surroundings in a pristine state. But anthropologists familiar with a particular community seldom believe it.
A slope in the lower Simbai Valley marked by gardens of all ages and various stages of secondary growth. The cultivated breadfruit tree in the lower right of the photograph is a further effect of human occupation here.
Mary Oliver’s lines came to mind as I looked at the photograph of Bomagai-Angoiang women and their children enjoying a peaceful spell in the morning sun while sitting on the open ground of one of their hamlets. Then I remembered an episode from The Poisonwood Bible, Barbara Kingsolver’s harrowing but lyrical epic novel of the fates that befall an American missionary, his wife and their four daughters after they moved to the Belgian Congo in 1959 to evangelise the local people there. Years later one of the daughters is living in a large American city and relates the responses to an American supermarket of one of her sisters, the sister’s African husband and their little boy, all of whom were recently arrived from Africa.

When I go with them to the supermarket, they are boggled and frightened and secretly scornful, I think. Of course they are. I remember how it was when I first returned from Africa: dazzling warehouses buzzing with light, where entire shelves boast nothing but hair spray, tooth-whitening cream, and foot powders.

‘What is that? And that?’ their son asks me in his wide-eyed way, pointing through the aisles: a pink jar of cream for removing hair, a can of fragrance to spray on carpets, stacks of lidded containers like the jars we throw away each day. They’re things a person doesn’t really need. ‘But how,’ the boy asks, ‘can there be so many kinds of things a person doesn’t really need?’

I can think of no honorable answer. There is nothing about the United States I can really explain to this child of another world.
Women often assembled in the morning for a gossip before setting off to work in their gardens.
Anthropologist Don Gardner has remarked that some Melanesianists have suggested that exchange practices constitute the medium of social existence for Melanesians, as water constitutes the medium of existence for fish. The remark rings true, especially if the designation 'Melanesians' refers mainly to men, at least in the enterprise of formal exchange activities. Rather than try even to begin to explore how exchange came to be so central in Melanesian societies, I will here touch only on what it may mean to the players in the game.

Of paramount significance is what Melanesian exchange is not. It is not a matter of stepping up to one side of a counter to buy or sell something to a person on the other side of the counter, the goods and the payment moving oppositely between people whose only connection is the impersonal transaction. Thank you. Goodbye.

Melanesian exchange happens within social relationships. Reciprocity is the grease whereby relationships are maintained, and in the minds of the people or groups giving and receiving is a constant concern that the reciprocity be balanced. Lack of what is perceived as balance creates unease; it can even be seen as immoral — though the dynamics of exchange are such that permanent balance is never achieved. After all, how would relationships continue if a static equilibrium were achieved?

Inadequate generosity angers the spirits and can be seen to cause individual failure in hunting or gardening. Or improper distribution of pork after a ceremonial slaughter of pigs can imperil the well-being or health of a whole community. But more and more in today's Papua New Guinea, now that money has penetrated everywhere, there is ambiguity about customary reciprocity. Perhaps, village people think, the way white people pay rent and buy and sell directly through the medium of money accounts for their wealth. And, as an economist would tell you, a moral requirement to be generous inhibits the accumulation of capital, which in turn restricts investment and, so, the possibility of development.
Kahang receives a piece of pork. The Papua New Guinean dog watching the proceedings is a valuable asset in hunting feral pigs and marsupials. The dogs belong to individual men, who often talk to them in a high falsetto voice, leading the dogs to howl, or ‘sing’, in return.
Now is the time of money

Looking at this photograph of men negotiating a brideprice payment, I am reminded of something I once read in Gregory Bateson's writings. Money, he wrote, has a unique attribute compared with anything in the biological and physical worlds, wherein there can always be too much or too many: too much water, too much wind, too many pigs, too many people, too much garbage, even too much food. But there can never be too much money, never even enough — this gives it a malignant property. Some economists do point out that money is a veil behind which real economic life goes on. True as this is, for most of us, including many economists, it is money that is real — money, an abstract symbol and measure of exchange value, has fallaciously come to have a tangible use value, to be the material thing itself, the commodity. Since money can grow forever through compound interest (or government issue), why then so too can material GNP — pigs or automobiles — and the population of people who require them.

The Bomaga-Angoiang in the photograph had only recently learned about money in the form of Australian shillings, a coin with a hole in the middle, sometimes known as holey money. These had been brought into the Simbai Valley a few years before by the Australian government officers and had begun to be distributed as payment for men's labour in road building, partly with the intention of introducing the concept of money to the people. The anthropologist researchers also brought shillings to pay carriers, as gifts to informants, to exchange for food and to pay for the construction of their houses.

When I was first in the Simbai Valley in 1964 (the time of the photograph), the shillings were still a novelty, which people would accept in payment but they were as happy or happier to have trade goods such as matches, axe blades, newspaper to wrap stick tobacco in for smoking, beads and salt — goods for goods, or goods for labour, nothing behind a veil. The goods displayed here as brideprice (a small pig, pearl shells, bush knives) had all been acquired slowly through barter, labour or husbandry. Their values in terms of those activities were known to all.

Now the genie of money is prevalent in Papua New Guinea. Brideprices in the Highlands have become so high that women complain they must work all the time or be beaten by their husbands, who, having paid so much money for their wives, want a lot of labour in return. Huge dollar amounts are demanded in compensations for killings or other wrongs. All ceremonial exchanges involve cash, often very large amounts. The cultural significance of pigs has waned. People say, 'Moni i antap nau' — money is the most important thing now.
Among the Maring, negotiations over brideprice were not as dramatically rhetorical as some I saw in the Highlands proper, but nonetheless the value of the goods exchanged would have been given deep thought.
How powerful a plant

Alongside some spindly tall shrubs with long lanceolate leaves, you see a pensive boy standing on a little path through jungly grasses and saplings. Above the boy’s head are some dried fern leaves tied to a horizontal branch. Hardly the sort of thing John le Carré would write about — except he has. What is pictured is a border crossing, a Maring version of the Berlin Wall. And for the Maring, the boundary is clearly marked by the dried fern leaves and the plantings of the long-leaved shrub, which is a cultivated plant with the scientific name *Cordyline fruticosa*, known to the Maring as *rumbim*. In Tok Pisin it is known as *tanger*, in English it is often simply called cordyline or *ti* tree or *ti* palm after *ti*, its widespread Polynesian name.

It was suggested by ethnobotanist Douglas Yen that cordyline was domesticated on the island of New Guinea, along with sugar cane, one kind of banana, certain cultivars of taro and other lesser-known crops. Wherever cordyline’s origin, the plant came to be cultivated from South-East Asia throughout New Guinea, Island Melanesia, and into Polynesia, including Hawai’i, New Zealand and Easter Island. It is widely used as medicine, as a lining for earth ovens and a wrapping for food, as an ornamental and ritual plant around houses and graves, and as ceremonial and everyday dress — as in the ‘arse-grass’ traditionally widely used by Papua New Guinean men as a covering for their buttocks. In Fiji and eastward in Polynesia, cordyline’s starch-rich rhizomes were baked and hydrolysed to sugar, and either eaten directly or used to sweeten other foods. The variety shown in the photograph has green leaves but other varieties — among the Maring and across the plant’s range — have bright yellow or red leaves, often favoured for ornamental planting and apparel.

Beyond these many mundane uses, cordyline (or some of its varieties) possesses strong ritual significance. In a generalised way, the plant enables communication with supernatural beings, often reputed to be renowned ancestors. Certainly the Maring’s most important ritual plant, its significance has been described in detail by several of the anthropologists of the Maring. For instance, *rumbim* is planted as a form of garden magic in the centre of taro-yam gardens to ensure good yields. *Rumbim* is (or was) much involved in cycles of war and peace and is associated with the ‘Red Spirits’ of men who died in warfare. Planting *rumbim* by antagonists committed both sides to a truce. Its planting also lifts taboos imposed during fighting on certain foods and on men’s sexual activity. It is always planted at boundaries as a ‘mark’ of clan ownership and to prevent the passage of enemy evil spirits.

If — together with the local clansmen — an outsider to a clan’s territory grasps the stems of a ritually planted *rumbim*, he takes the first step toward assimilation into the clan — he mingles his min (life force, bodily awareness) with those of the clansmen. The act also serves to resettle his ancestors at his new home because he also sacrifices a pig and calls out to the ancestors to come to the new place and partake of the pork. Thus, the power of *rumbim* relates to patrilineality and territoriality as well as to men’s well-being and strength.
In 1964 and 1965, men would often refuse to cross the ‘mark’ (boundary indicator) signified by the cordyline because they might suffer from ‘poison’ (evil spells, sorcery). By 1970 and 1977 everyone was much more casual about boundaries.
A nice woman

Rameka was a nice woman, always affable. She had come to the basin from Kompiai across the Bismarck Range in the Jimi Valley to marry Kunbun, an Angoian man. Everyone agreed that she was a hard worker and a good gardener, and she and Kunbun seemed very fond of each other. When I returned to the basin in 1977, I was sad to learn that she had died, reportedly of an accident while pregnant. Some time after her death, Kunbun had married again.

Thinking about Rameka reminded me of a kind of revelation I had after several months of living among the basin's people: it was that I was seeing in the personalities of various of the Bomagai-Angoian close similarities to various of my friends and acquaintances in Berkeley, California. One Bomagai man always made me think of my methodical friend Jim, who was in training to be a psychiatrist; Ngirapo was like Chuck, a vigorous medical student I knew; Rameka reminded me of the gentle, serious wife of a graduate student in mathematics. I had these thoughts in 1965 before we worried much about representations of 'The Other' — but I did query myself as to how I could find resemblances between people across two dissimilar cultures that had absolutely no connection with each other except for my presence in the one alien to me. Except it didn't feel alien.

Recently I came across comments by two anthropologists that reassured me about my 1965 musings, which would now be suspect in some quarters. One set of comments came from Clifford Geertz writing about Evans-Pritchard, one of the famous and influential English anthropologists of Africa. Evans-Pritchard, writes Geertz, depicted the African peoples he studied not as other but as otherwise (having their own way of doing things). He wasn't saying 'they are just like us', but that their differences from us, however dramatic, do not finally count for much. Among the African peoples he knew, men and women were brave and cowardly, kind and cruel, reasonable and foolish, intelligent and stupid, vivid and boring, and better the one than the other — but all with lives to live.

The other comments come from Epeli Hau'ofa, who, in 1975, as a Tongan, became one of the first Pacific Islanders to complete a doctorate in anthropology — in his case, for fieldwork among the Mekeo people of Papua New Guinea. Expressing discontent with the conventional discourse of ethnography, Hau'ofa wrote in 1975 that 'after decades of anthropological field research in Melanesia we have come up only with pictures of people who fight, compete, trade, pay bride prices, engage in rituals, invent cargo cults, copulate and sorcerise each other. There is hardly anything in our literature to indicate whether these people have any such sentiments as love, kindness, consideration, altruism and so on'.
Whenever I saw Rameka she was carrying heavy loads of tubers or firewood in her string bag.
At the tail of the snake
Among the Bomagai-Angoiang from 1964 to 1977

As the colonial system began to break down during and after World War II, and development became the universal goal for those parts of the world that had not yet achieved it, peoples who had been ‘tribal’, ‘folk’ or ‘primitive’ became, quite suddenly, ‘emergent’. As Clifford Geertz has commented, what they were emerging from was negatively defined: a general condition of illiteracy, poverty, illness, superstition and ignorance. The path along which they were to be moved was seen to be linear and universal, a path for all to follow. But in this quest to advance emergent peoples socially and economically, ‘nothing was clear except that something serious had to be done, and quickly, to remodel their character’. Economic infrastructure must be expanded; agricultural modernisation was needed; industrialisation was in order; cash crops and trade should be encouraged; the introduction of basic formal education was essential. Under these imperatives, changes — as ambiguous as they were vast — occurred in the past 50 years. Some places and peoples have benefitted, others have suffered. People who lived at the centre of the world, as they saw it, have become ‘remote’, ‘peripheral’.

My direct observations of how this maelstrom touched the Bomagai-Angoiang extend only from 1964 to 1977; these changes are sketched here and described in greater detail in a paper published in 1980. A few scattered bits of information make it possible to continue the story after 1977.

In 1964, the Bomagai-Angoiang had been in contact with Europeans for only six years. During that period, fights between clans had been proscribed so that the ritual cycle of war and truce began to fade. By 1964 all men had acquired at least one steel axe. But the people still had no cash crops and had maintained their houses, dress, intra-community social relations and system of land tenure pretty much as they had been before contact. They also still possessed their extensive knowledge and skills relating to the wild plants and animals in their territory. They enjoyed occasional visits by Anglican missionaries — not Europeans but lay brothers from Solomon Islands or coastal Papua New Guinea — but none of the people yet seemed much moved or interested in the religious message.

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Along with shells and possum fur, feather plumes, especially from the birds of paradise, were prized for use in self-decoration among Papua New Guineans as they once also were among fashion-conscious European women until the plume boom ended in the 1920s.
In 1964 the major traditional crops of taro, yams, sweet potatoes and bananas remained significant, and gardening techniques had changed little except that steel axes made felling trees an easier task than it had been with stone. But gardens had been subtly altered by the gradual addition of several exotic crops that had passed from group to group along traditional trade routes for a decade or two before the Europeans arrived in 1958. Of these introductions the taro-like *Xanthosoma* of tropical American origin was particularly favoured as it fitted easily into the tuber-crop complex and gave higher yields than the ancestral Pacific taro (*Colocasia*). Maize, too, was a valued newcomer as it contributed a substantial food earlier in the garden's life than any of the tuber crops. Manioc, or cassava — another crop of American origin now ubiquitous in the tropical world — had reached the Simbai Valley, probably sometime in the 1930s, but in 1964 was still mostly fed to the pigs, not being esteemed as food for humans.

My census figures from 1965 and 1977 show an increase in the Bomagai-Angoiang population from 154 people to 181 people, which points to an average annual growth rate of about 1.5 per cent, which was considerably lower than the estimated national growth rate of 2.5 to 3 per cent per annum in the same period. This fits with statements from demographers and anthropologists that the Highland Fringe has a higher death rate than the average for the country as a whole. Specifically, the people told me that an epidemic of influenza and pneumonia about 1972 accounted for many of the 32 deaths between 1965 and 1977. As nearly as I could make out, no one was aware that the population had increased significantly (17.5 per cent) in the 12-year period — and the general belief remained, as before, that it would be good if their population grew.

In the mid-1960s, the first building to be seen in Bomagai-Angoiang territory by a visitor coming along the government walking track from the Simbai Patrol Post — two days walk away near the head of the Simbai Valley — was a small thatch-roofed rest house (*haus kiap* in Tok-Pisin) on a hilltop at a place known to the patrol officers as Sipapi. Such *haus kiap*, which were built by local people on orders from the patrol officers, were then common throughout the country and were meant to provide temporary shelter for any administrative visitors, medical teams or other European visitors. The packed-earth space around the *haus kiap* was a meeting place between the Bomagai-Angoiang and outsiders. The people gathered there to listen to messages from the administration, hear agricultural officers talk about new crops, to undergo health surveys, and so on. In 1964 and 1965 the local people's own houses lay widely dispersed singly or in small clusters, their presence behind sheltering forest or ridges no more than intimated in the morning and evening by wisps of smoke from household fires.
Debris being burned prior to planting a garden.
When I returned in 1970, Sipapi had become a place for living as well as for meeting the outside world. Several closely spaced houses, built on roughly excavated terraces, descended from the hilltop rest house. On some nights almost all the men slept in these houses, often joined by women and children — although the women also often slept in 'bush houses' dispersed widely in the older pattern. Dramatic though the change in local settlement was, it was just one small set of movements in a common and long-established process. As George Henry Lane-Fox Pitt-Rivers noted in 1927, European opinion was almost invariably in favour of concentrating populations for a variety of reasons, most of which were said to have to do with the 'physical and moral advancement' of the natives. I do not know whether patrol officers in Simbai pushed for the aggregation, but it is certain that there was also a pull factor — Sipapi was now the place where the action was.

It was also at the end of the road and walking track from the Simbai airstrip and patrol post at the head of the valley. Beyond Bomagai-Angoiang territory to the east lay a large tract of uninhabited forest. This location, far from the patrol post and at the edge of settled lands in the Simbai Valley, is epitomised by what a man from the upper Simbai Valley told me in 1964: the Bomagai-Angoiang, he said, were a community at the tail of the snake, a characterisation that implied rusticity as well as marginal location.

Yet in 1970 there had been what might be seen as advances. A man from the upper Simbai Valley served as a paramedical Aid Post Orderly at Sipapi. Because he was absent during my 1970 visit, I am not sure what medical supplies he had but I was told that these sometimes included anti-malarial drugs, cough syrup, antiseptics and perhaps penicillin for serious infections.

The other and most striking addition to Bomagai-Angoiang life was the presence of a Papua New Guinean Lutheran pastor who had come from the Jimi Valley not long before and had persuaded the Bomagai-Angoiang to build a church. This building, the largest in the settlement, had a thatched with grass roof supported by poles over half walls of plaited grass stems. Poles laid on the ground provided seats for the people, with the women on one side and the men on the other side of the central earthen walkway. The people congregated there daily, and especially on Sundays, to hear the pastor evangelise. He spoke in Tok Pisin, which was translated into Maring by a local man who had worked on a coastal plantation. The sermon I attended had to do with God, the Father who was owed thanks for the beneficence that provided wild game so that the people need not eat only sweet potatoes and cassava. It was also implied that white people had meat more regularly because of a closer relationship with God.

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A view of the Nduimba Basin showing various kinds of secondary growth. A pandanus orchard is visible in the right foreground.
Commerce had replaced the gospel when I returned to Sipapi in 1977—two years after Papua New Guinea became independent. Now the first building to be seen on the track from Simbai was a trade store of the kind then common everywhere: a local materials shed just big enough for one man to stand in behind a rough plank counter laid in a hole in the wall. The store remained closed throughout my visit because it was too hard to tote the goods on the long trek from the airstrip. Nonetheless, the store remained a focal point in the community’s life, partly perhaps because it was symbolic of money and modernisation, even though its few flimsy shelves were empty. A further magnet seemed to be that the store’s principal owner, an Angoiang man who had a house nearby, was also the representative in the local government council, which had been formed in the lower Simbai Valley in the early 1970s.

A disintegrating rest house did remain at Sipapi, but the church and the aid post were gone. The pastor—who had become ill and departed for his home village a year or so earlier—had promised to return, but no one knew when. The church site was now a patch of tobacco plants flourishing in the ash-rich soil. The Aid Post Orderly had left, so the story went, because the people had tired of providing him with food and had been stealing food from his own small garden. The 1970 houses had all been abandoned because of the influenza epidemic about 1972, but rather than dispersing widely over their territory as in the past, the people had built two mini-villages close to Sipapi. House styles too had changed with about half the houses being of an introduced style: larger, higher, squarer, sometimes with an elevated pole floor, and windows that could be closed with a wickerwork blind of split grass stems. Despite the increase in population, the number of houses had declined slightly since 1965 because more husbands and wives were sharing a house rather than living separately.

Within subsistence gardens the most significant change was an increase in manioc, which was still fed to pigs but the people too were eating more of it—though it had by no means become the crucial carbohydrate food it is in much of the tropical world. Far more significant in the agricultural landscape was the spread of coffee as a cash crop. In 1965 there was no coffee; by 1970 a few men had coffee seedlings planted from a few handfuls of seeds acquired from friends or kinsmen in the Jimi Valley, where coffee planting was further advanced. About 1973 the Government launched a program to encourage coffee production in economically disadvantaged areas, and coffee seedlings became available to the Simbai Valley people from the agricultural officer at the patrol post in the Jimi Valley. By 1977 groves of coffee trees were well established, some already bearing fruit.
Food preparation under way in a Bomagai-Angoiang hamlet. The boy in the centre is eating ('drinking') sugar cane, which provides a significant source of calories in the Maring diet.
Most men had planted some coffee trees by 1977 but most holdings were small — the biggest having 933 trees, which one man had planted together with his two adult sons. The smallest holding comprised only 30 seedlings. The spread of coffee trees foreshadowed ecological and social changes, including an eventual shortening of fallow time for subsistence gardens because the coffee was planted in ageing gardens; as the trees mature they will lock that plot of land out of the fallow cycle. The portfolio of traditional orchards held by each man looked destined to be replaced by groves of coffee, a change that would lessen the supply of several nutritious foods, most notably the oil-rich pandanus sauce. The beginnings of a transition from forest to grassland were already evident, a widespread change that people may not notice because it is incremental but that would eventually require harder work in the gardens.

The coming of coffee cash-cropping will come to affect the land-tenure system. Often wrongly called 'communal', traditional tenure was nonetheless highly flexible in providing access to a clan's land to men with a wide variety of claims. Uusfruct was given easily. But land planted with coffee trees is different, it is bismis, able to produce money, and by 1977 the Bomagai-Angoiang were as susceptible to the 'seductive powers of money' as the rest of us. The people had become preoccupied with how to gain cash. As one man said to me, 'I plant coffee thinking of my sons: I want them to be wealthy.'

It is far beyond the scope of these pages to enter into the massive discussion of the reality or not of equality in traditional or modern Melanesia, or the effects — immediate and long-term — of introducing cash commodities into an economy previously based on gaining prestige and maintaining social relations by means of gifts and exchange. It is obvious, though, that in Papua New Guinea today ways have been opened for large-scale wealth accumulation for some and its inevitable converse — poverty for others. But in the lower Simbai, gross differences in wealth were unlikely to arise because cash-gaining activities then and now remain so few. Hauling bags of coffee on your back for a day or more to a roadhead to meet a buyer is not a way to get rich. Even in 1977, men were reluctant to carry out bags of coffee beans when they knew that prices were in a slump.

I will not comment here on the effects of coffee production on women beyond noting that women's labour is so vital to picking and processing coffee cherries to the parchment-bean stage that one Angoiang widower, who had no coffee trees, summarised his situation in a simple equation: 'no wife, no coffee.'

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A large swidden garden of the Kaluli people who live on the slopes of Mt Bosavi, Southern Highlands Province. Located in the Highlands Fringe to the south of the Highlands proper, Kaluli gardens are long-fallow and widely scattered like the Maring gardens but the Kaluli settlement pattern is different from the Maring's — with the Kaluli living aggregated in large multi-family long houses. Some agronomic techniques also differ: the Maring burn off litter and debris before planting, while the Kaluli do not burn at all.
At the tail of the snake

By 1977 the metaphor of being at the tail of the snake had taken on further meaning for the Bomagai-Angoiang. In 1958 when they and their neighbours were first brought under administrative control, they were 'newly contacted people' who needed to be visited, taught and proselytised by patrol officers, medical teams, agricultural extension officers and missionaries. It was important to count them, treat them medically, organise them to build walking tracks, instruct them that interclan fights were now forbidden and to lecture them on soap, schools and prosperity — to bring them into the fold of the Australian territory as it then was and the nation it was to be. Throughout the 1960s and into the 1970s kiaps (Australian administrative officers) carried out annual patrols 'to show the flag' as well as patrols for a variety of special purposes, such as malaria appraisals or the introduction of new crops, many of them European vegetables such as cabbage that are not as nutritious as the traditional dark leafy greens. European staff from the Anglican Mission at Simbai visited regularly and provided medical treatment, particularly a clinic for pregnant women and nursing mothers. The mission also established a primary school at Gai only three hours walk up the valley from the basin.

By 1977 the closest medical aid post was at Kinimbong, a good day's walk up the valley. The walking tracks were falling into disrepair compared with their previously well-maintained state, and the school at Gai was closed, making the nearest school in the Simbai Valley a government school at Kunbruf, the community at the end of the vehicular road from Simbai — outside of the Maring linguistic area. In 1977 no Bomagai-Angoiang children attended this school but five boys did attend the closest government school in the Jimi Valley, where the Bomagai-Angoiang had traditional affiliations.

Perhaps most symbolic of declining attention to outlying areas distant from the Simbai Patrol Post was that during the first three country-wide elections (1964, 1968 and 1972), special patrols set up a polling station at Sipapi, but during the 1977 election, two years after Papua New Guinea's independence, those people who wanted to vote had to cross a rugged river gorge and walk for four hours to a polling place. I was told that four men had done so. To the Bomagai-Angoiang, whose only experience throughout the 1960s and into the early 1970s had been of the Government (and the mission) coming to them, the withdrawal of services and visits was confounding. As a Bomagai-Angoiang man told me, the community was now angry at the kiap: 'The kiap has abandoned us, and now we're going to abandon him.'
Nguhni, a young Angoiang man, prepares an earth oven, a common cooking method. After leaf-wrapped packages of food have been put in the oven with hot stones, the banana leaves will be folded over to seal in the heat and buried under more hot rocks and earth.
The gap between city and country

From all reports, the marginalisation that I saw taking place by 1977 has continued since then. Some roads have been extended but, unmaintained, have soon fallen into a woeful state. Patrols have diminished even more. National officers are desk-bound from lack of funds even if they wanted to patrol places remote from district offices. Services at the district offices have declined: educational materials are lacking, medical supplies are not replaced and wages for public servants do not arrive.

A thoroughly researched handbook of rural development in Papua New Guinea, published in 2001, classes the Simbai Valley as 'remote; and the lower Simbai as an area having very low income (0–20 kina/person/year), low land potential, and poor access to services'. The figure of 20 kina may now be a bit low but there is no doubt that the summing-up comment is basically accurate: the people east of Simbai District Office and around Bundi (farther east) are the most disadvantaged people in the district (Usino-Bundi District in Madang Province).

To judge from similar processes of marginalisation across the world, rural deprivation is an inevitable companion of modernisation and economic development. The extension of state control over a wide area and the possibilities of capital accumulation encourage the concentration of wealth and power in the city. The irony is — in much of the world, not just Papua New Guinea — that the marginalisation occurs amid a political rhetoric that favours rural development, the reduction of economic and service-provision inequalities, and the maintenance and improvement of small-scale agriculture. Rhetoric not being reality, Papua New Guinea's towns and cities continue to receive rural migrants because the urban places are seen as sites of opportunity and riches by the still largely rural population (about 85 per cent of the total). This is much lamented by many observers, some of whom may have a romantic view of rural life.

As geographer R. Gerard Ward has written, 'Most work by anthropologists, economists, geographers and other researchers deals with rural areas and communities. Yet most of the driving forces now reshaping Pacific Island economies, societies, polities and geographies have their sources in the urban areas.' And, as anthropologist Eugene Ogan has noted, anthropologists have been a bit obsessed by a 'cult of virginity' that has led them to seek out 'untouched cultures' to study or sometimes to represent the people they have studied as more 'untouched' than they truly were — such as by not mentioning that a highway runs through a village whose social and economic life is being described. Now every person in the world is touched to some extent by global forces, state power or its absence, the need for money, the contagion of consumer goods, environmental menaces and communications from far beyond local boundaries. It could almost be said that in some ways 'remoteness' no longer has meaning — but in other ways it has come to have greater meaning.
An Eccentric Ethnography

View of the Kaironk Valley, which neighbours the Simbai. The groves of trees on the grassy slopes are mostly casuarina, which have a nitrogen-fixing capacity and are planted in old gardens to enrich the soil and to provide fenceposts.
**Being and creating**

'We are born to exist, not to know; to be, not to assert ourselves.'

— E. M. Cioran,

*History and Utopia*, p. 42

To the extent that one can know how Cioran’s typically aphoristic sentence fits into his line of argument, the epigraph above probably does not really fit the photograph. But as an aphorism on its own, it chimed in my memory when I looked at this photograph of Bomagai-Angoiang women chatting while they handspin string by rolling and twisting bark fibres together on their thighs.

Of course, on occasion the women do assert themselves in the sense of speaking their minds forcefully or showing anger. Also, they know an enormous amount about gardening, crop varieties and the natural history of their homelands. But they did have a great capacity for being in the moment, for attending peacefully to whatever they were doing.

They will use their hand-made string to make the flexible looped string bag (bilum in *Tok Pisin*) that is one of the most hard-worked accessories of daily life in Papua New Guinea. It is easy to forget about the significance of containers as a part of material culture in the face of bows and arrows, spears, shields or head-dresses adorned with plumes — but without the string bag, caring for infants, collecting firewood and provisioning the hearth with food would be far more difficult tasks.

The construction and meanings of string bags are well described by Maureen MacKenzie in her book *Androgynous Objects: String bags and gender in central New Guinea*. She writes:

The *bilum* is traditionally constructed from the inter-connected loops of bark fibres handspun into a virtually unbreakable two-ply string. Each bag is constructed from a single string, as the maker, usually although not always a woman, alternately adds to the string by spinning more fibres against the thigh, and then uses the new length to construct further loops of the bag.

MacKenzie goes on to note that the looping technique used in making *bilums* creates a stronger and more expandable fabric than does knitting. 'If the interconnected loops of knitting are pulled and broken, the work will run. With looping, the finished fabric is prevented from unravelling around a break in the element because the working thread is pulled through the body of the work in the construction of each loop thus sealing the break.'

People say, 'The *bilum* is good because it feeds us.' And, 'The *bilum* looks after us, our babies and our things.' Aside from their great utilitarian value, *bilums* are also widely recognised as artefacts of beauty, expressive of fine workmanship. As MacKenzie says, 'A good *bilum* enhances the appearance of the carrier, and is essential for a walk to market, into town or a trip to another area to impress onlookers.' ‘The *bilum* is our *bilas*’ (*bilas* — *Tok Pisin* for ‘ornament’, ‘decoration’).
The woman on the right is dividing underbark into narrow strips, which are then hand spun into strong string. Often when the women are 'at leisure' chatting, they spend time lengthening a piece of string by this process. A string bag lies on the ground to the left.
Time for touching

Looking at groups of women and children sitting together, I often noticed a closed or almost closed circuit of touching — an arm across a shoulder, a leg against a foot, a hand on an ankle — a link from body to body connecting the group. While sitting so, the women might be occupied with hand-spinning string from plant fibres, looping *bilums*, making pubic aprons. Or they might be chatting or nursing babies. Or picking lice and nits from one another’s heads — as in the photograph.

We know that lice are very old associates of humans and that our particular host-specific species likely co-evolved with us — and that picking lice from one another is a form of sociability we share with our primate relatives. In modern societies, lice infestations cause mortification, though they can be common even among well-cared-for schoolchildren in sophisticated suburbs. Removing them becomes a social imperative and there are special louse combs and medications to that end.

Instructions on the combs and medications include comments that success in eradicating the lice will require persistence. A discussion about lice published by Harvard School of Public Health notes that ‘mechanically removing lice and nits can be an effective but time-consuming method’.

This was true among the Bomagai-Angoiang, but I doubt that they saw the time so spent as a burden. As far as that goes, when I lived among the Bomagai-Angoiang in 1964 and 1965, I cannot remember ever seeing anyone who looked or acted bored. Ennui seemed not to exist. In contrast, the *Oxford English Dictionary* provides examples of ennui personified as a demon or a fiend dating back to the eighteenth century. And when I typed ‘ennui’ into a search engine on the Web, I was provided with 142,000 entries in 0.07 seconds. Whether the Bomagai-Angoiang felt it or not, ennui has been around in my Western society for a long time and is prominent in the contemporary world.
Picking lice is much easier now than when adolescent boys traditionally wore large ritual wigs and women's hair was worn longer. Long pointed sticks like knitting needles were used then to scratch the head.
A question has more than one answer

To the Maring, the red spirits (rawa mugi), who live in the mountain-top forests, are the spirits of men killed in warfare, their colour coming from their bloody death. Their dwelling place is sacred and the spirits forbid the felling of trees there, except for certain ritual purposes. They tolerate men hunting in the forest for feral pigs, marsupials or cassowaries, but if game is taken they will become angry if not offered thanks.

How do I know so much about the red spirits? Much of it I learned from anthropologist Roy Rappaport, who wrote about ritual in the ecology of the Tsembaga, a Maring clan cluster who lived a day's walk up the Simbai Valley from the Bomagai-Angoiang. In his research, which was carried out a year before mine, Rappaport was much concerned with Maring beliefs about ritual and supernatural beings, whereas I was more concerned with Maring understanding and practices related to natural history, gardening, arboriculture and the use of wild plants. So, much of the time I talked botany and agroecology with my Maring informants and learned a lot about weeds, crops, trees and gardening practices; Rappaport, although ecologically minded, spent more time learning about beliefs in spirits and the meanings or purposes of ritual practices.

Having talked with Rappaport before I went to Papua New Guinea, I already knew about the red spirits and remembered that he had told me that the Maring did not garden in the high-elevation lands of their territory because it would anger the red spirits, who would then harm the living. Now and again I thought of this, especially when noting how no gardens were planted above a line that marked the lower edge of a layer of cloud that covered the higher-elevation lands almost all mornings and afternoons. One day, after I had been with the Bomagai-Angoiang long enough for them to know my interests and to recognise that I knew a bit about their garden crops and soils and agriculture, it occurred to me that it would be interesting to hear what my friend Kabang would say if I asked why his people did not make gardens higher up the mountain slopes. He looked surprised at my question and said that it was too cold and wet under the cover of cloud for the crops to grow. Crops, he informed me, needed sunlight if they were to flourish. When I questioned him further about the influence of the rawa mugi, he agreed that, yes, that too was a reason.

My anecdote is not unique. Many anthropologists and other scientists have experienced similar responses: only when the visiting questioner knows enough to understand an explanation or enough to be judged worthwhile talking with seriously, do local informants provide a serious reply — and often one nicely calibrated to what the questioner already knows and has shown interest in.
The montane-crest forest is a cold, wet place but is not devoid of resources. The cassowary and some of the birds of paradise live here, as do several small marsupials hunted for fur and flesh. Products gathered include palm wood for bows and edible pandanus kernels that are preserved by smoke in leaf packages in house rafters.
Blemished beauty

This shy, serene young woman suffers from tinea, a skin affliction caused by a fungus. The condition, known as grile in Tok Pisin, is recognised by the people to be contagious, the result of contact with infected people, not the result of sorcery. Since infants and young children are held, asleep or awake, against an older person’s bare skin much of the time, the disease passes easily from an infected parent or older child to the young child — although infection does not always happen, a circumstance that has led to the suggestion that there could be a genetic predisposition or resistance to grile.

This otherwise appealing young woman knows that her dry and scaly skin is seen to be the antithesis of the shiny, smooth skin that is an explicit ideal of beauty and health and allure across the Highlands of Papua New Guinea — and throughout the Pacific Islands. The distaste that grile arouses is revealed by the Tok Pisin phrase pukpukmeri, which is applied to a woman (meri) with grile, which is to say ‘crocodile woman’, or a woman with skin as scaly as a crocodile’s. By 1965 the term was widely known in the Jimi and Simbai Valleys, having been spread by mission nurses or brought back from the coast by the young men who had gone there to work on plantations as contract labourers.

The Bomagai-Angoiang had some traditional treatments for grile, and I had a bottle of grile lotion as part of my medical kit. Sufferers were eager to try it, holding out their cupped hands to hold the lotion as I poured it, then rubbing it on their skin. But unless they continued the treatment for several days, the lotion did not much help. The more effective antifungal medications that have been developed recently came too late to help the young woman shown here to be more beautiful in the eyes of her community and her potential suitors.
Tinea, such as this young woman endures, is more common in the lowlands and mid-elevations of 750 to 1200m where the Maring live than in the cooler highlands.
On one day Ngirapo said he did not feel well enough to walk to the gardens with me. His malady was not malaria, he said — just a kus, that is, a cold, a cough, or a ‘flu’. His nose was congested, he had a headache, he felt weak. He asked me for a spoonful of cough syrup and an aspirin tablet, and I saw no harm in dispensing those popular palliatives. Thus treated, Ngirapo sat in the sun and asked Kumoint, a younger man of his clan, to bring him leaves from the weedy stinging nettle plant known as nent (Laportea decumana). Kumoint rubbed the nettles over Ngirapo’s back while murmuring a ritual chant. I winced at the sight, having several times walked into nent by accident, only to experience an intense burning pain as the stinging hairs touched my legs. I thought then that the pain Ngirapo must be experiencing (although he was not wincing) acted as a counter-irritant, taking his mind off his sickness. Ngirapo’s own belief was probably that the nettles were heating his body, which would be beneficial in that being ‘hot and dry’ is a sign of good health in men.

The flood of publications on ethnomedicine that have flowed from the pens of researchers over the years since I lived in the Ndwimba Basin tells us that nettles have been used medicinally for millennia in many societies across the world, both by direct application of the leaves and as liquid extracts taken internally, and that Ngirapo’s nent may have provided benefits beyond counter-irritation. This interest in people’s local medical lore on the part of present-day scientists has come about thanks to the recognition by pharmaceutical companies that many ethnomedicines are effective and might form the basis of commercially profitable drugs, and also thanks to efforts by geographers, anthropologists and botanists to save for the wider world some of the vast repository of empirical knowledge about plants and other aspects of local environments held in the minds of indigenous peoples.

And I must not forget Kumoint’s ritual chant, for the Maring conception of the causes of illness includes but also extends beyond physical and biological pathologies. Briefly, the Maring see some illnesses or ailments to have what Westerners would call natural causes; the causes of other conditions lie in the social world, with an individual’s offensive or ritually dangerous acts bringing malevolent responses from witches, sorcerers, spirits or ghosts. To put these illnesses right requires counter-magic or shamanism or bringing social relations back into harmony, perhaps by killing a pig and distributing its meat appropriately.
The day after his nettle treatment, Ngirapo said he felt much better.
Axes, stone and steel

When I asked Ngirapo and some of the other older men in the Basin to carry out a trial comparing steel axes with the stone work axes that they had used in their youth, Ngirapo looked at me as though I were an idiot. Why bother, he said, we all know that steel axes are much easier to use and faster than stone ones. He went on to suggest that stone axes were something consigned to the past, to the time of the ancestors, not something having a place in present-day life. When I finally convinced him and the other men that I would really like them to carry out my peculiar experiment, they fell to with the stone axes, as Ngirapo is doing in the photograph.

I knew that Ngirapo was right in his assessment of the ancestral and the modern axes, but I was seeking comparative measurements of labour input. On the average, work with stone axes took four times as long as the same work with steel axes, a difference that accords with other similar comparisons in Highland Papua New Guinea. Even though their work hours were longer when they had only stone, the men were not entirely slaves to their gardens with no time for war or ceremonies. On the other hand, the men who are old enough to have used both types of axes speak appreciatively of the benefits of steel. One man told me, ‘Once I had to work all day to clear trees; now I work a little in the morning and then have time to sit and talk with you.’
The rank vegetation around Ngirapo is young secondary growth that has sprung up in a recently deserted garden.
An axe is an idea

After I had asked Ngirapo to demonstrate how a stone axe was used to clear trees for a garden site, I became curious how grass and herbaceous weeds had been cut during Ngirapo’s youth. Would not a bush knife, like the one stuck casually in his belt, be a much better tool for slashing grass? Oh yes, he said, the bush knife was better but — getting into the spirit of talking about how things had been done before steel tools arrived — just look how the stone axe could also cut grass. Seizing a stick, he pushed it down among the grass and weeds, then pulled the stems over the stick and gave them a good whack with the stone axe against the stick, cutting the grass and weeds. I admired the technique but agreed with Ngirapo that the bush knife does the job faster and more simply.

Does this mean that steel tools are better than stone ones? Anyone who has held an unhafted New Guinean stone axe in their hand and felt its beautifully formed and polished surface feels too the thought and deep individual attention that went into its making. To hold a factory-made steel axe blade is a different experience. In their time, stone axes admirably met the goal of extending the strength and efficiency of the human body. Hours and hours of careful work went into making them, with the maker all the time holding in his mind the idea of the finished product. Their manufacture, their acquisition through trade and their possession were understood by everyone to be matters of deep significance and pleasure. Stone suitable for making good axes existed only here and there, with modern geologists noting that all such occurrences appear to have been found and quarried. The clans with quarries on their land held a monopoly in axe manufacture, and the workmen of each ‘factory’ produced their unique style of axe from recognisably distinct types of stone.
In 1964 men still kept quite a few stone axe heads tucked away under the rafters of their houses. Since stone axes had by then been totally replaced by steel, perhaps the men were keeping them in hopes of selling them to anthropologists.
Wut displays his steel axe

Wut was a congenial man who often came to visit me. Here he displays his steel axe with its recently fitted new handle shaped from the wood of an understorey forest tree called *ap tandapa* in Maring, *ap* meaning 'tree'. *Ap tandapa* is one of the several *Garcinia* species native to New Guinea. Unlike their close relative the succulently delicious Malaysian mangosteen, the New Guinean wild *Garcinia* species have a poorer fruit which is only casually collected in parts of New Guinea but is nowhere significant as a food. Wut said that his people did not eat the fruit of *ap tandapa* at all although cassowaries did. The tree’s wood, however, was favoured for axe handles, not only among the Bomaga-i-Angoiang but more widely in New Guinea. And now it fulfils the same function for steel axe heads except that the handle is fitted through the hole in the steel rather than being split at one end so that the stone axe head could be wedged tightly between the split pieces of wood and bound in place by plant fibres — or by the more complex arrangement of a haft that incorporates the fork of a branch to which a split socket of wood holding the stone axe can be tightly bound by an elaborate lacing of rattan or other fibres.

Wut told me how the Bomagai-Angoiang first received steel axe heads from the south in the 1940s over native trade routes from the Jimi Valley, whence the axes would have entered from the European settlements that had by then been established in the Central Highlands. At first the new axes were very hard to come by, and only a few men had them and treasured them. Wut showed me one of these early steel axes, which he had kept tucked under the rafters of his house. It had been sharpened so often that it was no more than a nubbin of metal. By the late 1950s, as Australian patrols moved into the Jimi and Simbai Valleys and established patrol posts and airstrips, steel axes had become increasingly available. By the time I arrived in 1964, all men had at least one steel axe head. Those who had more than one used them for wealth accumulation and bride payments as well as for chopping. Thus, steel axes had by then completely replaced the thick-bladed stone work axes as well as the thin-bladed, fragile, ceremonial stone axes that had been so important not long before.
Maring axes felt unbalanced to me, the blade too heavy for the thin handle. But they cut effectively in the hands of Maring axe users.
The photo looked straightforward—a woman in her garden with her baby. Then some of the complexities came to mind. She had been born into a clan from outside the basin and so remained to some extent an alien although she was also at home in the garden she planted and tended on her husband’s land. Out of sentiment for her natal home she had planted varieties of taro and sweet potato from her mother’s gardens. Her baby boy she has named ‘Beel’, as one might spell the way she pronounced my name ‘Bill’. This habit of naming babies after some event that happened around the time of their birth was widespread. When I lived in the Simbai Valley, I met several people named ‘Kiap’ or ‘Balus’ to commemorate their birth near the time the first patrol officer had arrived or the first airplane had been seen. *Kiap* and *balus* are words in Tok Pisin, patrol officers and airplanes not being part of traditional life. But Maring words are also used, as in the name of my friend Kabang, whose name referred to a large bird that was seen near the time of his birth. And now Beel perhaps still lives in the Simbai Valley, carrying the name of someone who once crossed the Pacific Ocean to study his people in the name of Anthropology and Geography.

In the foreground is her baby’s ‘cradle’, a strong, expandable string bag that she has made from local plant fibres. Inside the bag is a blanket of softened pandanus leaves sewn together. Soft leaves from *Coleus* shrubs planted around the garden provide baby wipes. No need for a baby-accessory store here; nor for a supermarket since Beel’s mother spends hours most days in her garden producing ample food for her family and her husband’s pigs. And hanging from her neck is a pearl shell known as goldlip or *kina* (the name now given to Papua New Guinea’s national currency), which were very important in the Simbai Valley in the 1960s and 1970s as bridewealth, in other exchanges and as self decoration. Are they traditional? Yes, in that they arrived before Europeans via traditional trade routes and were used in traditional patterns of exchange. But they did not reach the Jimi or Simbai Valleys as part of the Stone Age trade patterns although they were part of that pattern farther south. Pearl shells first entered the Jimi and Simbai Valleys after Europeans imported plane loads into the Central Highlands in the 1930s and 1940s to buy food, pigs and labour. They filtered northward in exchange for bird plumes or other goods. Then they became devalued by the inflated supply and have been replaced by money.
As was common in traditional New Guinea, the Bomagai-Angoaing knew that children resulted from coitus but the immediate cause was the blending of semen with female blood in the womb. For the child to develop, a continued supply of semen was needed to fasten the woman’s blood and contribute to the body of the child.
‘A tree has roots, but men do not; we must plant or we would die.’

— Nakemba, an Angoiang man

Bronislaw Malinowski introduced his classic study of Trobriander agriculture, *Coral Gardens and Their Magic*, by writing:

In this book we are going to meet the essential Trobriander. Whatever he might appear to others, to himself he is first and foremost a gardener.

... He experiences a mysterious joy in delving into the earth, in turning it up, planting the seed, watching the plant grow, mature, and yield the desired harvest. If you want to know him, you must meet him in his yam garden, among his palm groves or on his taro fields.

This description does not fully fit the Maring. For one thing, Trobriander men do more gardening than do Maring men, in part because yams — some species of which are traditionally a man's crop — are much more important in the Trobriand Islands than in the Simbai and Jimi Valleys. The Trobriander men build elaborate yam storage houses and gain prestige from growing and displaying very large yams. Among the Maring, yam cultivation is low-key compared with the approach of the Trobriand Islanders or some Sepik men, who could be said to be obsessed with the rites and magic that permeate their efforts to cultivate large yams.

Along with yams, men's crops among the Maring include the tall plants of sugar cane, pandanus, bananas and *mungap* (*Saccharum edule*, a relative of sugar cane that bears a delicious inflorescence). But the commonest Maring crop is sweet potato, and nowhere in the Pacific do sweet potatoes carry the ritual significance attributed to taro and yams. So, it is the women who know all the many varieties of sweet potato and who carry out most of the planting and harvesting of the crop.

As the foremost gardeners among the Maring, the women know that they can harvest only what they have planted, that weeds demand constant attention — they keep coming back in ever greater numbers after being pulled up. The women also have an affection for certain varieties of sweet potato, planting them over and over again in successive gardens. Often these are varieties that their mothers grew. They are admired and maintained not only because of nostalgia but because they are seen to be beautiful, to have nicely shaped, shiny leaves.
Maring gardeners are indifferent to the slope of their gardens, working cheerfully on slopes of more than 35 degrees. But they pay close attention to micro-variations in the soil, choosing soil to fit the crop's requirements — always, for instance, planting tobacco where the soil is ashy and taro where the soil is soft and moist.
Christopher Healey, one of the anthropologists of the Maring, wrote that the cassowary is unequivocally a wild and potentially dangerous and antisocial creature of the forest, pre-eminently a creature of nature. In this, it stands in marked contrast to humans who are cultured beings who possess a soul. In contrast to cassowaries, pigs share essential characteristics with people, being linked by their nurturance and their submission to human will. As people keep pigs, so the spirits (rawa) keep game, spoken of as the 'pigs' of the rawa, with the cassowary being one of the pre-eminent pigs of the spirits.

In writing about the symbolic and ritual significance of the cassowary to the Maring, Healey argues that the cassowary is the only animal whose killing is invariably treated as a sacrifice. One facet of the bird's significance has to do with concepts of maleness, which is associated with being 'hot', as are cassowaries, while women are 'cold'. Maleness is also associated with high altitudes, the colour red, hardness, enduring strength and dryness; femaleness with low altitudes, softness, weakness, damp and rot. Being 'hot' denizens of the high-altitude forest, cassowaries are loaded with maleness. Since the capture of adult birds by hunting depends solely on the prowess of men, there is an identification between cassowary and hunter, who becomes an asocial forest-dweller like the cassowary, which avoids cultured, cultivated open spaces. In contrast — or in a way in parallel — domestic pigs are recognised to be the product of complementary male and female labour.

Never domesticated, cassowaries are obtained only when adult birds are killed or trapped by hunters or when cassowary chicks are taken alive. When hunters find a cassowary's nest in the high-elevation forest, they watch it until the eggs hatch, then capture the chicks, which soon become quite tame and live freely about the hamlets. They are carefully provided with water and fed sweet potatoes, bananas and pumpkin. As they mature, they are confined to a pole stockade, as in the photograph, because they become dangerous — having powerful legs and extremely sharp claws that can inflict serious wounds or even kill. Eventually, they are either used in a ceremonial exchange, where they have the value of several pigs, or are killed — by strangulation with a vine. The people savour cassowary flesh, especially delighting in the rich orange fat or oil. The birds' long wing quills are inserted as decorations though pierced nasal septa, and the plumes are used in head-dresses.
A mature dwarf cassowary, *Casuarius bennetti*, which was captured as a chick and is now locked in a stockade of planks awaiting eventual slaughter. Though seldom seen, this species is (or was) fairly common in high-altitude, heavy forest in Maring country.
You are what you don’t eat

I have seen the aphorism that you are what you eat attributed to Ludwig Feuerbach (Der Mensch ist was er ifßt) and to Brillat-Savarin (Dis-moi ce que tu manges, je te dirai ce que tu es). And I wouldn’t be surprised if the English, Americans, Italians and Greeks claimed it as well. Whoever said it first observed a truth. But it is also true that you are what you do not eat. Avoiding certain foods sets you off as a cultural being, a person with restraint rather than an omnivorous animal, and may define your position within a community. As anthropologist Polly Wiessner wrote in her introduction to Food and the Status Quest, ‘After all, it has long been accepted that the popular adage “you are what you eat” applies to our social as well as to our physical being.’

Food taboos are a universal human trait in the sense that everywhere in the world there are things that we could eat but do not eat. Some of these avoidance behaviours rest on no more than taste preferences; others are more formal and potent. The Bomagai-Angoi ang often commented on the food taboos observed by individuals, and the whole clan-cluster was bound by a taboo against eating the yellow-fruit ed pandanus although the red-fruit ed variety (being made into a sauce in the photograph) was allowable and much relished. Taboos can be either temporary or permanent. For instance, men going hunting for certain animals in the high forest or when they were active fighters during wars in pre-contact times placed taboos on particular foods. Later, when circumstances had changed, the taboos were abrogated.

LiPuma (1988, 90) writes in his discussion of Maring taboos that:

People adopt and abandon taboos for reasons ranging from personal squabbles to full-scale war. Each individual possesses a roster of food taboos which bear a personal as well as a social stamp. The ancestors supernaturally sanction and enforce these prohibitions, infidelities eventually punished by illness, accident, or death. As an example, informants pointed to a man disfigured by fire, explaining that some years ago he had eaten pig alone in the bush and later been punished by the ancestors for his greed. Today, one Anglican rite adopted enthusiastically is Lenten renunciation of certain foods, and much to the chagrin of local priests it overshadows even the resurrection on Easter Sunday.
A young Bomagai-Angoiang man prepares komba sauce, which is the tasty red sauce made by squeezing the pulp around the steamed seeds of Pandanus conoideus, the dominant tree in Maring orchards. It is eaten mixed with a variety of greens.
It depends what you mean by ‘security’

In his paper ‘An Overview of Food Security in PNG’, agronomist and geographer R. Michael Bourke refutes the United Nations Food and Agriculture Organisation’s designation of Papua New Guinea as a country with poor food security. Rather, writes Bourke: ‘Overall, food security is high in PNG as most rural people have access to land and can grow most of their food requirements’. If this was true in 2001, when Bourke wrote it — and he has long fieldwork experience and provides good evidence from other sources — it was true in 1964 among the Bomagai-Angoiang, pictured here preparing their evening meal of foods hunted or harvested from their gardens, orchards and forests.

The meal might consist of any of 10 species of tuber (never mind their many cultivars), bananas, maize, beans, some 10 kinds of greens from cultivated shrubs or trees, and more greens from wild ferns and other plants. To come close to completing the list of vegetable foods add nuts or seeds — wild and cultivated — pumpkin, Saccharum edule (the delicious sterile inflorescence of a relative of sugar cane), figs and pawpaw. Meat, although a comparatively minor part of the diet on average, might come from feral or domestic pigs, birds, marsupials, lizards and snakes (python is succulent), eels, frogs and crustaceans found in streams and on land. Eggs from domestic fowl and wild birds were also eaten. Children added insects and spiders to their diet after cooking them briefly in hot ashes.

As for land, in 1965 I went through the then fashionable exercise of calculating the ‘carrying capacity’ of the Bomagai-Angoiang territory, even though the concept is not very useful. Suffice to say that I estimated that about one-tenth of a hectare of land under garden was required to feed each person, a figure that allowed a 30- to 40-year fallow, which was more than adequate to rejuvenate the soil. In short, despite some indications of protein malnutrition, I believed that the people’s food supply was sufficient and that — at their then population of 154 people — their existing agricultural system would be permanently productive. I admired this permanence-possessing agriculture for several reasons: it did not depend on imported fuels or fertilisers; it required no toxic agricultural chemicals; in contrast to the energy yields of many modern forms of industrial agriculture, the energy yield of Bomagai-Angoiang gardening was strongly positive; its only inputs were renewable; the bases of its production were equitably distributed throughout the population; and it was polycultural and arboreal.

I also admired people’s cooking and found myself lingering in the hamlets in the late afternoon when the bright red pandanus sauce glistened on crisp fern leaves, and the air smelled of steaming leaves being charred by hot stones in earth ovens. I felt there was a deep connection between the people and their bounteous place.

There was also a dark side. As Edward LiPuma wrote of the Maring people he studied, ‘Many fears, anxieties, and possibility of pollution are bound up with eating.’ Menstruating women should avoid preparing food so that their blood does not accidentally (or deliberately) fall on to the food and contaminate it. Sorcerers and witches favour working their malefic magic over food because they know that in the act of ingesting food — taking in substance — people are at their least secure against attack.
Preparing the evening meal from the day's harvest.
Pigs

Anyone familiar with the rural parts of the highlands of the island of New Guinea knows that the pig is by far the most important animal, wild or domestic. Not only do women labour in their gardens to grow sweet potatoes and manioc to feed their husbands’ pigs, they also nurture them as members of their family, and may mourn for them when they are slaughtered. Men give and receive them, sacrifice them, pay for brides with them, gain fame or shame because of their size and number. When the pig herds are legion, much agricultural labour and land is dedicated to their sustenance. The Bomaga-i-Angoi say that a place is ‘good’ when pigs thrive there, and ‘bad’ when pigs fall sick there and the herd does not increase.

Put in functional terms, the pig is so important because it converts manioc and small, grubby sweet potatoes into the more valued currency of live pig and pork: pigs provide a way to ‘bank’ low-grade tubers. It could even be said that pigs accumulate the labour of women.

I did a census of the Bomaga-Angoi and their domestic pigs early in 1965 and recorded 78 pigs (26 adult females, 18 adult males and 34 juveniles), all of the native New Guinean type. Because most of the males are castrated before they mature, the female domestic pigs must breed with the feral boars that are abundant in the lower-elevation forest. The domesticated pigs were distributed fairly evenly among the wives, so that only a few of the 37 adult women had fewer or more than two pigs in her care. This ratio of pigs to women points to a herd of moderate size, and people said that they had few pigs. I estimated that if the herd grew to 120 or 130 pigs, the women would begin to complain about the increasing burden of work necessary to feed the pigs. Furthermore, as pigs become more numerous, so too do their forays into gardens, where the animals threaten human food supply and cause enmity within the community when one man’s pigs damages another man’s gardens. This is when people begin to say they have ‘many pigs’ and to think of a massive ritual ceremonial slaughter and pork prestations to lessen the herd, as described so famously in Roy Rappaport’s Pigs for the Ancestors, for the Tsembaga, a Maring group who live a day’s walk up the Simbai Valley.

But all this is as it was decades ago. Now, many observers believe that pigs, although still valued, are losing much of their significance and may be declining in number as they are replaced in prestations and compensation payments by money and beer (sometimes called ‘small pig’). So the classic descriptions of gaining prestige by amassing large herds culminating in elaborate pig-killing ceremonies no longer apply. Now money is banked and new avenues to prestige have opened — national politics, for example.
Kunhun proudly displays a young feral pig he had just shot with his bow and arrow. The pig is of the traditional New Guinean type.
Lands rich in thought

In some religions, it is the work of priests to intercede between people and their god, praying that the deity will forgive or bless the suppliants. In the sense of stepping in between people and a higher entity, this process makes me think of how the priests of environmental management seek to intervene between people and their environments to further conservationist creeds, to safeguard 'the environment', which has become an iconic if not a divine feature.

Take, for instance, the agricultural system known as shifting agriculture, swidden, slash-and-burn agriculture, or any of many other names. At the heart of the system is a temporary garden in a forest clearing. As the harvest from the garden diminishes, the gardeners allow the garden site to fade back into the surrounding forest. Then they fell a plot of forest to make a new garden elsewhere. The old garden site is left to fallow under regenerating forest for 10, 15 or even more years. Clearly such a long-fallow method can only be practised in places with low population densities, for there must be a large area of fallowing land in proportion to the land under cultivation at any particular time.

There are those of us who admire shifting cultivation because we believe it to possess many merits when practised where pressure on land is slight. There are others to whom it is anathema. Economists see it to be inefficient: 'Look at all that unused land. How unproductive!' Eco-missionaries are horrified by the felling of the forest, which entails loss of the now sacred abstraction of 'biodiversity'. Or does it?

What the long-fallow gardeners create is a mosaic of forest types, which is diverse and useful because it contains trees that were planted in the garden and the spontaneous seedlings of trees that were deliberately not weeded out because they provide fruits, nuts, fibres, perfumes or enrich the soil. But the eco-missionary may not see that the forest has been created by human manipulation; rather, its clearing is seen as the destruction of something 'natural'. Had the Bomagai-Angoiang spoken the jargon, they might have said that they were fabricating a humanised landscape of many pieces, each known and valued, that in their landscape Nature and Culture were not antagonists but were blended fruitfully.

Or, as a New Caledonian Melanesian, the slain Kanak leader Jean-Marie Tjibaou, luminously said: 'Me? I'm only momentarily here. But I must do everything in my power to ensure that the country I will leave to my sons is the most beautiful possible. For it to be rich in thought, in wisdom, in flowers and in food.'
Manioc, sweet potato vines, the leafy green *Abelmoschus manihot*, sugar cane and several other crops are visible in this interplanted polycultural garden. The slope behind the garden is covered with secondary fallow forest of varying ages.
Inventing underdevelopment

In January 1949, in his inauguration speech, United States President Harry Truman defined the largest part of the world as 'underdeveloped'. Had the President known of the existence of the Bomagai-Angoiang, he would have included them in the category. There it was, being underdeveloped had suddenly become a dominant feature in world thought, a pivotal concept that crammed the greatest part of human diversity into a single category. A new world view had been announced: all the peoples of the Earth were to move along the same track and aspire to only one goal: development. And the road to follow lay clearly before the President's eyes: 'Greater production is the key to prosperity and peace.'

Of course, in 1949 being underdeveloped or even conceiving of the idea had no reality for the Bomagai-Angoiang because they had no contact with nor knowledge of those parts of the world that Truman classed as developed. Instead, they were autonomous, a very small self-sufficient state, if you like, although they possessed none of the apparatus of larger self-declared nation states. In their world they did not feel themselves deprived in comparison with others; they met their needs as they then saw them from their own labours within the productive landscapes they had created.

Almost 10 years later the first *kiap* (administrative patrol officer) came, and the Bomagai-Angoiang began to hear the message from the *gaeman* (*Tok Pisin* for 'government') that they must develop, they must be part — a tiny part — of another world wherein they were destined to move from being ecologically rich to being economically poor.
Smoke from burning debris in a recently cleared garden site in another community’s territory up the Simbai Valley from the Ndewimba Basin.
Take any sport

Take any sport, tennis for instance: some people actually play it, some go to Wimbledon, others watch on television. Take football, or cricket: the fan internalizes a reel of his names inside his head. He knows the famous victories, infamous losses, and draws; he loves to talk about historic games, good referees, vast crowds, inspiring captains, good years and bad, the present and the old days. Inside him are grades of passionate judgement. Another enthusiast need only utter two words to betray the vast amount of sharing that is possible for them both ... sharing names that have been learned and graded. This is culture.

So wrote Mary Douglas and Baron Isherwood in their book *The World of Goods: Towards an Anthropology of Consumption*. This brought to mind how when I listened to older Maring men talk about the wars they had experienced in their younger days they sounded like sports enthusiasts in my own society.

I do not mean to say that Maring wars were no more than games. Men were killed, communities were routed, or clans fled their home territories to seek refuge with allies, valuable trees were destroyed. But don't wars anywhere have aspects of a game? Victory, defeat, excitement, the will to win, strategy and tactics, escalation and retreat — all these and more are part of games as well as wars.

By the time I arrived in the Simbai Valley, wars had been proscribed by the superior power of the Australian patrol officers and their native police. But the older men remembered them with enthusiasm. Commemorated them with stories and dance. Exhilaration. Days of glory.
Highland Papua New Guineans dancing in full ceremonial regalia including shells, feather plumes, necklaces, armbands, woven head-dresses, leaves and string aprons adorned with possum fur.
Everybody enjoys playing with language. We all seek at times, for poetic or politic reasons, to avoid being explicit. We like the social connection that comes with sharing a secret language with a few other people. We may even savour excluding the uninformed.

Metaphors and allusions — and other forms of concealment or word avoidance — have been reported for many Papua New Guinean languages. At least some of these usages are systematic and elaborate enough to be called ritual languages. I cannot offer much detail about the Maring version since my knowledge of it is even more rudimentary than my knowledge of their everyday speech. I take comfort with regard to this linguistic deficiency when I recall that an anthropologist of long and intimate experience with people in the Mt Hagen area of the Central Highlands — and someone who did speak the local language proficiently — once told me that when the old men got together to talk about the past, he could scarcely begin to grasp the flow of complex metaphorical allusions.

Taboos on directly naming people and things feature strongly in the allusions and avoidances. Some relatives by marriage should not be named. Nor should the dead, whose malevolent ghosts might appear if they heard their names spoken. There are also taboos having to do with the non-human spirit world. Addressing the hot (dry, strong) red spirits (rawa mugi) of warfare who inhabit the high forests, the Maring use place names of the high ground or refer to the spirits by the names of animals or plants that live in the high forests. To summon the spirits, clan elders may use poetic allusions such as ‘orchid-cassowary’, ‘smoke-rising’ or ‘hearth/cooking fire’. Offerings of pig to the red spirits are referred to as ‘taro’, which is a ritually important vegetable food. Eels, which are associated with food taboos and are significant in some ceremonies, are referred to as the pigs of the lowland spirits (rawa maï), the cold wet spirits of fertility.

Tell the truth but tell it slant
— Emily Dickinson
An Eccentric Ethnography

The Northern Highlands fringe made up of mountains, ranges and valleys that separate the broad Highland valleys from the tropical lowlands.
Where did we begin to go wrong?

So asks Jonathan Bate in *The Song of the Earth*, his intricately interwoven work on environmental consciousness through 'ecopoetics'. Noting the parlous state of nature at the beginning of the third millennium of the Christian era, Bate catalogues the litany of present and impending catastrophes: planetary warming, melting glaciers, imminent rising of sea level, overfishing, spreading deserts, shrinking forests, the diminishing diversity of species, atmospheric pollution by a cocktail of toxic gasses, shortage of fresh water, soil erosion and 'mad cow disease' bequeathed to us by feeding diseased dead animals to living cattle.

Did it all start with pesticides and 'factory farming'? Or was it the advent of the automobile, the coming of capitalism and the extinction of the 'organic community'? The industrial revolution or perhaps the domestication of plants and animals? The poet Philip Larkin, writes Bate, saw rural England vanishing under concrete and tyres in the 1970s. Others see the rot at work in the 1930s. Thomas Hardy saw the loss of the old ways in *The Woodlanders* in the 1880s, and Cobbett fulminated about the rise of the rentier class with their exploitative relationship with the environment in the time of Jane Austen. Oliver Goldsmith blamed modern consumerism for the desolation of the land in his *Deserted Village* of 1770. Examining historical perspectives on the topic of when the better life was lost eventually leads back to Eden. Or to an idealised harmony of prehistoric communities with their environment.

When I knew them, the Bomagai-Angoiang might seem to fit this bill but, as I argue elsewhere on these pages, they did not have a conservationist ethic. Nor did they have as a goal the harmony with their physical environment that some contemporary environmentalists ascribe to them.
Clearing forest for gardens can be exciting work, especially when a giant tree finally topples over.
Walking on the moon and managing the garden

After my year's stay in the Simbai and Jimi Valleys during 1964 and 1965, I was able to make two short return visits to the Bomagai-Angoiang, in 1970 and in 1977. One night during my 1970 visit I was on a hilltop with several Bomagai-Angoiang admiring a full moon and the way its light glittered on the waxy leaves of trees below us. Suddenly, an old man wearing only his pubic apron approached and, with one arm, gave me a great hug while with the other he pointed at the moon, stamped his feet up and down, and shouted 'Amereeka, Amereeka!', thus celebrating what he knew of Neil Armstrong's walk on the moon in July 1969. Most probably, he thought that I was directly connected with the exploit because most of the anthropologists and geographers who had worked among the Maring were from the US, and the Maring had named us Amereeka to designate a group of people who behaved differently from missionaries or administrative officers.

At the time I was delighted by his hug and his excitement, but now I remember the incident in the light of a related anecdote told by an anthropologist who worked in Africa. An African village farmer while weeding his maize crop asked the anthropologist if it were true that the Americans had gone to the moon. She assured him that it was true. The farmer laughed and then asked, 'What was the matter with them? Didn't they have anything to do here on Earth?'

At first, the anthropologist records that she viewed the farmer’s light-hearted derision as a source of insight into his own pragmatic culture. But later she acknowledged that his query showed the follies of her own culture. While we plan further explorations into space, do we not still have a great deal to do on Earth? According to a British environmentalist, our task involves 'nothing less than permanently arresting the deterioration in the functioning of the biosphere as a viable life support system for Earth. The time limit must permit the biosphere to recover its equilibrium, and to renew its vigour sufficiently to enable human, animal and plant life to continue to flourish into the indefinite future.'

This mandate as to what should be done pretty well describes what the Maring were doing when I lived among them. They managed their gardens, their fallow forest, their orchards with an eye to posterity. And during their occupation of the Ndwinba Basin the land's vigour has been constantly renewed so that human, animal and plant life continues to flourish.
Highland gardeners living above 2000m mulch the soil and plant sweet potatoes on mounds of soil, techniques that maintain soil fertility and may protect the sweet potato vines from the Highland's frequent frosts.
The photograph shows a Bomagai man setting off in the morning to establish a new orchard — what his people call a *komba-naenk nduk*. The cuttings in the bundle he holds suspended by a rope of vine have been cut from an old orchard of *komba* trees (*Pandanus conoideus* or *marita* in *Tok Pisin*). Planting the cuttings will be a simple matter of digging holes with the digging stick lying on the ground behind him, then thrusting a cutting into each hole and stamping down the soil around it. Although some fallow forest may be cleared to make the orchard, most of the planting will be in an old garden of root crops, bananas and other short-term crops, thus extending for many years the harvest from that piece of land.

Other trees planted in the orchard will be *Gnetum gnemon* (*naenk* in Maring), breadfruit and a small fig tree, with the latter two being minor components, so that the name *komba-naenk nduk* specifies only the two major components. The word *nduk* could be said to mean garden since it is applied also to all the kinds of gardens of short-term crops.

Resources gained from mature *komba-naenk nduk* are the pandanus fruits, which provide a nutritionally and socially important oil-rich sauce. The pandanus leaves provide roofing material. The *Gnetum* tree (*tulip* in *Tok Pisin*) bears leaves, inflorescences and fruits, all edible. Its inner bark is one of the many sources of fibre for string. The breadfruit provides edible seeds — breadfruit flesh is not eaten by the Maring. The fig (*Ficus wassa*), which also grows wild in the secondary forest, bears edible leaves and fruit, and the bark can be made into cloth for a head covering for men. Some of the ferns that come up spontaneously in the shelter of the orchards also bear edible leaves, which when steamed in the earth oven are succulently crunchy.

Note the bow and the bladed and barbed arrows that the gardener holds; these would come into play along the way through the forest should he encounter large birds, marsupials or a feral pig.

Planting the *komba-naenk nduk* is one of those actions that create abundance — a future fruitfulness that depends upon the simple actions of individuals. It has little to do with technological adroitness, with what elegant refinements may further polish the interface between people and their computer chips.

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**Orchards**
I estimated that each Bomagai-Angoiang person has about 0.06ha of komba-naenk nduk aside from their garden land and the resource-rich secondary forest.
Engaging with the world

The collision between the world economy and specific places is a topic that currently occupies centre stage in social science. And for good reason: global interconnections — of economic, cultural, or other kinds — are more visible than ever before. Has the local dimension of social and economic life thereby been completely overwhelmed by global forces? Has place been subsumed by space? The 'end of geography'? Benediktsson, 2002, 1

'Not so,' continues geographer Karl Benediktsson in his book Harvesting Development: The Construction of Fresh Food Markets in Papua New Guinea. Indeed, Benediktsson goes on to write that 'an array of local trajectories of change can be observed. Places are not obliterated by globalization of economic relations and space-time convergence; rather they are transformed.' Hence, the attention of social scientists is increasingly directed towards the actual links which stitch the global and local together into a contiguous, if not coherent, or uniform, spatial fabric.'

We lament the fate of the small and weak when they face the huge and powerful — whether these are countries or corporations. But, as Benediktsson implies, the small and weak have their own ways of doing things and often do not do badly at 'getting by'. In the photograph, Kalam men (living in a valley abutting the Simbai) are working together to turn over sod so as to create friable soil for a garden. Such cooperation is 'traditional' but the men may intend to plant coffee trees together with newly introduced vegetables such as cabbage and onions. The coffee beans, pulped and sun-dried locally, will be sold to coffee buyers for export and the vegetables may be sold to public servants at the nearby Simbai Patrol Post. All this within a few years of first contact with Europeans.

Coffee production and the sale of vegetables arose from the introduction of the market and the concept of the commodity into the Highland Fringe in the 1960s. But also in this scheme of bringing everyone into the modern world are the actors, and they turn out to be real people with their own aspirations and ways of doing things. The colonial and post-colonial powers encouraged local Papua New Guineans to produce commodities and to enter the market, and the people proved avid marketers but many of their economic actions remained embedded in their own cultural heritage and their already established social networks. That is, the people did not become mindless automatons responsive only to primal economic forces. Rather, they brought social and moral considerations of their own to their participation in the market, with economic ties often linked to lines of descent or common residence or both. It must not be forgotten, however, that their economy — like the global economy — is also political and not magnanimous. There are local manipulators seeking to benefit only themselves (as in selfish individual gain from the sale of a community's timber); and ancient power tussles between local social groupings have continued not only with spears (and now AK-47s) but with money.
Cultivating in the Kaironk Valley. Grassland soils require turning and aeration if they are to be productive. Clan brothers often work together at this task or in building fences.
Is she to be so greatly feared?

I commented elsewhere in this book that when I look back upon the relations of Bomagai-Angoiang men and women, my predominant memory is of gentle affection among married couples (of course there were quarrels, too) and piquant flirtation between young men and maturing girls rather than manifestations of a deep fear men have of women's dangerous sexuality, as is so often described in ethnographies of Papua New Guinean peoples. Since, on the basis of my memory, I cannot say whether the fear was not there or it was there but I did not see it — having directed my attention more to gardens and trees than to the psychology of sexual relations — I will leave the matter open and cite divergent viewpoints.

In his book Men and ‘Woman’ in New Guinea, anthropologist L. L. Langness, who has strong interests in the psychological aspects of life, remarked that the ‘attitudes of men toward women in Melanesia have, I think, been exaggerated in the literature. While it is true that everywhere women are regarded as in some ways inferior to men, it is vastly oversimplified and simply not true that “women are derogated and despised”.

But later in the same book, Langness cites anthropologists Georgeda Buchbinder and Roy Rappaport, who wrote about the Maring:

It seems to be clear that it is the sexuality of females that is dangerous to men. While this sexuality is most strongly concentrated in the vagina, it is not confined there. Women are saturated with it, and it may spread contagiously to anything with which they come into contact, most notably their clothing, the food they prepare, and the fires over which they cook.

Buchbinder and Rappaport also report that the Maring say that too much sex will lead to physical dissolution, causing a man’s skin to become loose, wrinkled and ulcerated, his flesh to waste away, his thought to become fuzzy and his belly bloated. Young men worry that it will stunt their growth, blemish their skin and leave them weak and unattractive. And yet Maring men are not prudish. Older men are less fearful than younger men, are often openly lecherous and outspokenly ribald, and younger men, despite their fears, show a keen interest in sex, wear finery and anoint their skins with pandanus oil, which has had its attracting power strengthened by love-magic spells.

And Roy Rappaport once told me — I don’t think he ever wrote this down — that a Tsembaga Maring woman had once said to him: ‘If men are so afraid of our bodies and worry so much that they will fall ill if they touch us, why is it that they are always trying to pull us into the bushes with them?”
An Eccentric Ethnography

Girls used to paint their faces with white clay. Now talcum powder is more in vogue. Her traditional armlets are made of dried and flattened orchid stems.
Now

"Now" is a cross-roads where all maps prove blank,
And no one knows which way the cat will jump.'
— A. D. Hope, Parabola

In his book From 'Primitive' to 'Postcolonial' in Melanesia and Anthropology, Bruce Knauff wrote:

Melanesia ... has often been perceived 'particularly by those who are not specialists' as a 'stone age land' or a 'land that time forgot.' ... In contrast to such images, Melanesia today is confronted with the challenges and tensions experienced by many if not most third world areas: ethnically diverse peoples aggregated uneasily into postcolonial nations or neocolonial provinces; expropriation of resources by multinational corporations; the promises and many problems of development projects; difficulties associated with urbanization, class stratification, corruption, and unemployment; and the threat of social disruption.

As I write, Papua New Guinea is carrying out another of its turbulent national elections marked by violence, delays, theft of ballot boxes, perverted voter rolls and a proliferation of political parties (some 43). Corruption pervades, at times to the highest levels of government. Forests are violated through manipulative arrangements worked out among self-appointed local spokespeople, foreign logging companies, politicians and government officials. Raskols are seen to prevail over forces of law and order. Marijuana is a major crop with its profits tied up with an abundance of high-powered weapons. Clinics, hospitals and schools lack supplies and staff. Financial returns from tuna fishing by foreign ships in PNG waters are too small, and some inshore marine resources — notably hêches-de-mer — are badly over-exploited. Inequality of women persists despite the national goal of 'Equal participation by women citizens in all political, economic, social and religious activities'. And, yes, class stratification, rapidly growing towns, 'militant landowners', young people searching for jobs, social turmoil ...

These challenges facing the state and its people are much analysed and lamented. Looking back at the orderly, peaceful (and colonial) era I once knew, I lament them, too. But, what is it we lament? Certainly the distress that individual Papua New Guineans may suffer but also, at least in part, that postcolonial Papua New Guinea is not moving easily toward becoming a well-organised, equitable, modern liberal democracy — a chimerical goal we have set for ourselves and for all the world's people. Looking through an anthropological lens, we can say, for instance, that a very limited scale of cooperation has always been characteristic of Melanesian society, a characteristic that 'Papua New Guineans nowadays refer to with the one word "police"'. Or, the evolution of raskolism (the operations of criminal gangs) can be interpreted as the evolution of an urban gift economy fed by theft and burglary, involving social relations which are typical of pre-capitalist Melanesian societies in general.
Kabang found a convenient way to package a small pig for transport. Later he will present the animal as part of a brideprice.
In an article about a ‘conservation and development’ project run by the World Wide Fund for Nature (WWF) in Solomon Islands, marine biologist Simon Foale tells a story that illustrates a dilemma of understanding between Western conservationists and rural Melanesians. It relates to the hawksbill turtle — a more charismatic animal than the native Papua New Guinean rat that the Bomaga-Angoiang child in the photograph is holding just before cooking it in hot ashes and eating it. But the point is the same.

As Foale reports, ecologically minded conservationists try to convince Pacific Islanders not to over-exploit marine turtles, which are considered ‘flagship species’ in efforts to conserve biodiversity. In the pursuit of their goal, the conservationists argue that the loss of a turtle species could harmfully affect the functioning of the entire coral-reef ecosystem. Whether this argument is true or not, it fails to convince. When a conservationist asked a local fisherman what he would tell his grandchildren if he discovered that he was responsible for killing the last hawksbill turtle on Earth, he answered, ‘I’ll tell them how good it tasted’.

Aside from the argument about ecological linkages, Western-minded conservationists value species (especially endemic ones) for their own sake because they have come into being over a great span of evolutionary time. This gives them an inherent value, and their extinction is viewed as a tragedy. Foale argues, rightly I believe, that most rural Melanesians find alien the attribution of inherent value to a species — a concept underpinned by unacceptable assumptions. The people’s rejection rests in part on a widespread acceptance of the Christian doctrine of human pre-eminence and in part simply on a preference for valuation based on economic and utilitarian worth, an approach to valuation that is reflected in folk taxonomies, which may lump into a single taxon many species seen as having little or no use while developing elaborate taxonomies for varieties within a single heavily utilised species such as taro.
Aside from their domestic pigs and (unimportant) fowl, the Maring gain protein by hunting a variety of creatures, including cassowaries and other birds, snakes, lizards, eel and marsupials.
REMEMBERING PAPUA NEW GUINEA

Traces on the Rhodian Shore

It is said of the Socratic philosopher, Aristippus, that being shipwrecked and cast on the shore of Rhodes and seeing there geometrical figures sketched on the sand, he cried out to his companions, 'Let us be of good hope, for indeed I see traces of humanity.' After making this observation, Aristippus departed for the city of Rhodes (another unique human creation) and there in its gymnasium talked philosophy.

I borrowed the epigraph from Clarence Glacken's monumental work of scholarship and synthesis Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century (1967). Glacken believed that in the history of Western thought people have persistently asked three questions about the Earth and their relationship to it. Is the Earth purposefully made to be a fit environment for people and other forms of life? Have the Earth's varied physical environments influenced the character of people and their cultures? In their long tenure on Earth, how have people changed Earth's landscapes from their hypothetical pristine conditions?

These three questions can be summarised as:
- the idea of an Earth designed for us and other forms of life;
- the idea of environmental determinism;
- and the idea of Earth transformed by human actions.

Today, the third relationship dominates much discourse, given our ever-growing population, our ever more powerful technologies of resource extraction and manufacture, and our swelling consumerism. Even in the accompanying photograph, which shows a grassland in Maring country in the Jimi Valley, human actions are evident with metaphorical traces on the Rhodian shore visible in the rectilinear traces of old gardens in the grass. Beyond those traces, I would be certain that the grass itself is the result of transformation through human actions. Once, these slopes were covered with forest; now they are grassland because of clearance for gardens and subsequent burning over centuries. (A spell of drier climate in the past could also have helped by intensifying the fires.) The grasslands are maintained because people set fires when the grasses are dry; otherwise bushes and trees would invade and eventually suppress the grass. So, here is a landscape transformed by human action — and, in turn, that transformation now affects human use in that gardening in grassland requires different techniques and more labour input than does gardening on land cleared from forest. Glacken's second and third ideas both apply.

And in today's world, Glacken's first idea, that of a designed Earth, would also affect the grassland — design, not by a deity but by environmental agencies and conservationist NGOs seeking to restore or maintain biodiversity and conserve forests.
Without human activity, the grasslands would be smaller or non-existent but nature plays a part as well, with the grasslands being most extensive on north- and west-facing slopes, which receive the most solar radiation.
Temporary madness as theatre

In 1970, when I first returned to visit the Bomagai-Angoiang after 1964-65, I found the people's settlement pattern had changed from widely dispersed to a cluster focused on an evangelist's church. All the men were sleeping in one or another of several men's houses nearby; and many women spent at least some nights in one of the two dormitory-like women's houses. This audience-in-waiting played its part in the drama to follow.

On the evening I arrived, an adolescent boy rushed to the door of my house and stared at me intently, eyes wide. Then he darted off while bystanders chased after him warning each other to be careful lest the boy turn violent. Running back to me, he circled me, again staring wide-eyed. Then he disappeared, and I was told that he had gone to sleep in a men's house and would be normal in the morning, which he was. People explained that he had become longlong (Tok Pisin for crazy or insane or having a wire loose).

The next night an older boy announced that he felt dizzy and was becoming deaf. Grabbing a bow and arrow in one hand and an axe in the other, he ran erratically among the houses while a crowd of people streamed after him shouting warnings and making the drawn-out trilling cry with which the Maring express excitement. Eventually he rushed down a trail into the forest and did not show up again that night. The next morning, which was a Sunday, he came back and ran around the open-sided church, which was filled with people listening to the evangelist's sermon. People's attention quickly shifted from the evangelist to the boy, who was chopping down the decorative cordyline shrubs beside the church. For the rest of the day, he continued manic, scattering firewood about, chopping down more cordyline and other plants, and upsetting water containers while people remonstrated with him and grabbed and hid his weapons — but so ostentatiously that he quickly found them again. Children swarmed after him taunting him, then fled in mock terror. He kept up this behaviour all day and evening, retreating into the forest only after midnight. The next day he continued his disruptions but less frenetically until he fell asleep in a men's house and woke up as his everyday self. Then, on cue, still another youth became longlong.

Fits of temporary madness occurred in pre-European times, with the wild men being termed yu prim, which means 'man deaf' in Maring or 'crazy man', because deaf people cannot be full social beings. Deafness is believed to be caused by a spirit putting its fingers in men's ears or by spirit possession.

Episodes of madness have been widely reported for the island of New Guinea, arousing great interest among anthropologists and psychologists seeking a cause and function for the behaviour. My explanation is less dark than many that have been offered. I believe the community celebrated more than censured the wild men. Men who had been yu prim became temporary stars and themselves seemed proud of having gone mad. Afterwards, bystanders discussed the events as would an audience after a play. In short, while not mimicking other causes and functions, I saw temporary madness as a form of theatre. My interpretation is not unique, with several other observers speaking of 'exciting diversions' and the necessity for an audience. It would be easy to run wild alone in the forest but no one does.
A Maring man who earlier went temporarily mad wears a necklace of seeds and a headpiece made from the fur of the common spotted cuscus (Spilocuscus maculatus), which is a large nocturnal possum widely distributed within New Guinea, especially at lower elevations.
Things aren’t simple anymore

It was much easier to talk and write about culture when people stayed put — so comment Alan Howard and Jan Rensel in an article entitled ‘Where Has Rotuman Culture Gone? And What Is It Doing There?’ Once upon a time cultures were confined in particular spaces, the property of a particular people. Now, in our mobile and volatile world, ‘culture’ is problematic, being seen to be subject to a range of faults including reification, localism, boundedness, idealism and ahistoricism.

When I was an undergraduate in anthropology 50 years ago, my professors never criticised the concept of culture with such words, nor would I have understood them if they had. Rather, they pretty much taught that all ‘native peoples’ had their own culture, a jewel they possessed — solid and unchanging though with many facets. Certainly, my professors never mentioned, as Howard and Rensel note, that Malinowski saw cultural reality as a seething mixture of conflicting principles rather than a consistent logical scheme.

By the time I was living with the Bomagai-Angoiang and had seen how easily they took up new ways and things and quickly adapted to prohibitions against their wars and practices such as platform burial, I had decided that the jewel analogy was false. Rather, they pretty much taught that all ‘native peoples’ had their own culture, a jewel they possessed — solid and unchanging though with many facets. Certainly, my professors never mentioned, as Howard and Rensel note, that Malinowski saw cultural reality as a seething mixture of conflicting principles rather than a consistent logical scheme.

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Although culture may now be seen as protean, the sin of essentialism remains — I commit it on these pages, describing how ‘the Maring’ believe such and such or do this and that as though they were a coherent single entity rather than a collection of individual agents each with his or her own history. As Edward LiPuma has written, the term Maring is an invented category which did not exist prior to European arrival. It now refers to an assortment of clan clusters who occupy contiguous territories, once practised similar rituals of war and peace, have similar forms of production, exchange and consumption, and speak mutually intelligible dialects of a common language. But the boundaries of the Maring have never been clear-cut, and the border communities remain a mixture of practices and languages.

Now everywhere is a frontier, Malinowski’s ‘seething mixture’ is embodied by the girls in the photograph displaying trade beads from Czechoslovakia, wearing European dresses, sporting European fabrics on their heads, and one of them has decorated her face with dye manufactured in a chemical vat. But the bilums knotted on their heads, though made at least in part of purchased string, are not very different from those made and used the same way by their grandmothers' grandmothers.
Bilums (string bags) remain widely used in Papua New Guinea because they are such strong and expandable containers, and are easy to carry — rather like the string bags of French housewives.
It's time for a Papua New Guinean poet to speak

Well into the 1950s there were few literate Papua New Guineans; there could, therefore, be little creative writing by local people. By 1963 the idea of developing in-country tertiary education was advanced within the Australian Territorial Government, and a Commission on Higher Education in Papua and New Guinea was formed.

After surveying the educational background of the territory, the commission recommended that a university be established in Port Moresby. The University of Papua New Guinea began teaching in 1966, with 57 students enrolled in a preliminary year. At the end of the year 37 of these qualified for matriculation to university.

The opening of the university provided an enormous stimulus to creative writing by Papua New Guineans. An important catalyst in this movement was Ulli Beier, who brought experience from Africa in encouraging creative writing and whose exceptional drive and talents quickly brought a surge of literary expression out of the young students.

Beier also played a significant role in the publication of the first autobiography by a Papua New Guinean, Albert Maori Kiki's *Kiki: Ten Thousand Years in a Lifetime*, published in 1968.

Many small journals were founded, including the Papua Pocket Poets series, which provided an outlet for the new writings. These provide a fascinating commentary on the students' feelings and thoughts, which were often romantically nostalgic for the old ways while also resentful of colonialism and European domination. Here is a brief example of this writing, a poem by Kama Kerpi, a graduate of the university from Chimbu Province. The poem was published in 1973.

*The Simple Joys of Life*

We sat around the fire.
Doors barred to shield off
the cold mountain winds.
The flicker of firelight
leaping before our eyes.

And there under the cover of darkness
the old woman began
stories of long ago,
of her formative simple joys.
And there we followed her on an
unused trek
passing through an old ruined kingdom.

Filing over the horizon were the days
of wars and hill-farming,
where feasting and hunting
became the simple joys of life,
a life that remains a scar in her.

Sorrow masked her wrinkled face.
It was a nightmare,
and only sleep awoke us from a
strange journey.

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A Bomagai-angoiang woman sits in the sun on a hill above the basin hand-spinning plant fibres into string.
There is nothing speculative about it: the vote on blossoms has already been taken (people over many centuries have nurtured and carried the flowers from place to place, supplementing what was there)...

— Elaine Scarry, On Beauty and Being Just

In seeking to enhance their own beauty and attractiveness, people experiment with an array of possibilities: beads, shells, feathers, fur, paints, oils of many kinds, bright leaves, fragrant foliage, shiny metallic green beetle shards woven into yellow orchid stems, and much more. Young men and women also each have secret beauty-magic spells, which embody the names of places meaningful in their lives and the names of plants and birds admired for their beauty.

Around their houses and hamlets the Bomagai-Angoiang almost always establish plants with leaves or flowers that are aromatic or that have shiny and brightly coloured leaves or attractive flowers. Often these plants are said to be ‘just for decoration’ or ‘just because I like them’. Plants are also set out in gardens and at pig-killing sites, where they may serve several purposes — again, ‘just for decoration’ but also, as in the case of cordyline and several other plants, for deep ritual purposes. A plant much appreciated for its aromatic and colourful leaves is a herbaceous Coleus species, which is interplanted by stem cuttings with crop plants. Known in Maring as amami, its presence is believed to make taro corms grow large. It is also planted at graves and used in fertility rituals, perhaps because as a cultivated (cultural) plant it protects against the dangerous fecundity of wild nature, bringing it into the more regulated world of human society and culture.

I have noted before how a woman will carry varieties of sweet potato from her childhood home to her husband’s gardens because she feels affection or nostalgia for those particular plants. Beyond this is an artistic impulse, which has been aptly described for the people of Nokopo village on the Huon Peninsula by Christin Kocher Schmid. What she says applies equally to the Maring.

Notions of Nokopo art are not easily recognized by westerners’ eyes but they are present, tightly interwoven with daily life. Aesthetic concepts are realized and transformed by every man and woman.

Kocher Schmid goes on to say that the aesthetic expressions may be ephemeral, as with face paint, or they may last longer, as with the arrangement of crops in a garden. Women, she writes,

... arrange different crop cultivars in their gardens to create pleasing patterns. They alternatingly plant sweet potato cultivars with reddish or red tinged leaves and cultivars with light green or dark green leaves ... Contrasts between light green and dark green are only rarely accentuated and then only in combination with the contrast between whole leaves and deeply dissected leaves.

Or, as Malinowski said about the Trobriand gardens he made so famous: ‘The gardens are, in a way, a work of art.’
A young girl ready for a sining, adorned in a mixture of the old and the new — old are the pandanus oil shining on her skin and the kina shells; new are the face paint, trade beads and cotton in her hair.
Agriculture has more than one story

The history of American and European agriculture over the last hundred years has been a history of the increasing dominance of industrial capital over farming.

— Richard Lewontin, 2001, p. 84

Lewontin’s sentence encapsulates a suite of changes in Western agriculture — things as varied as increases in the size of land holdings, a decline in the need for farm labour, a huge increase in the use of industrial fertilisers, pesticides and herbicides, ever more elaborate and costly farm machinery, sophisticated forms of plant breeding culminating in cross-species gene transfer, and several other changes of tantamount significance. All of these can be seen as progress, the quintessence of the West.

In contrast, is subsistence agriculture on the island of New Guinea static and unprogressive? Certainly, it is not. Rather, it contains great ‘agrodiversity’, a term recently explored by geographer Harold Brookfield. Agrodiversity’s spatial dimension involves components such as crop mix, social and economic relations of production, and agronomic techniques. It also implies change over time as new crops are adopted, as new techniques are put into use and as processes of agricultural intensification take place.

Among the Maring, for instance, soil manipulation is minimal, more than 50 domesticated species are fostered in gardens, orchards or around houses. And many of these species contain scores of distinct cultivars, for example, sweet potatoes, taro and the several species of yam. To the eye unfamiliar with them, the polycultural Maring gardens could look like a somewhat chaotic jungle. Sweet potatoes and Xanthosoma (an introduced taro-like plant of American origin) are the two major tubers in the diet, with the indigenous taro, yams, bananas and sugar cane all being significant sources of calories, and food from trees (especially pandanus, breadfruit and Gnetum) also of great importance. And all this fruitfulness is embedded in maturing secondary forest.

Contrast such a lushly arboreal landscape with the cultivated slope in the photograph taken in the Baliem Valley in the highlands of what is now the Indonesian province of Papua, which makes up the western half of the great island of New Guinea. The soil has been turned and worked into beds, the stones picked out and carefully arranged into hand-made dry-stone walls that serve as slope-retention devices. The agriculture is close to a monoculture of sweet potato rather than the wildly polycultural mix in Maring gardens. The focus of production on the staple sweet potato is even further symbolised by training sweet potato vines up poles, a space-conserving technique I have never seen anywhere else on the island of New Guinea.
This intensely used agricultural landscape almost suggests some connection with the terraced lands of South-east Asia — but which way did any influence flow?
How to grow more food on the same amount of land

In 'Agriculture has more than one story' I described two seemingly very different New Guinean agricultural systems. But they are connected along a scale of traditional agricultural intensification, with the Maring close to the least intensive, and the Baliem Valley close to the most intensive. Because Maring gardeners can fallow their land under forest for a long time, their gardens require little labour. As population increases and land becomes a scarcer resource, the fallow must be shortened, which in turn requires greater labour in soil management, new techniques of cultivation and a concentration of effort limited to the most productive and energy-rich crops. Western economists would see the increased yield as progress. Certainly it is change.

Anthropologists and geographers have devoted much research to such intensification since 1965 when Ester Boserup published her short but seminal work *The Conditions of Agricultural Growth: The Economics of Agrarian Change Under Population Pressure*. Her work was revolutionary in part because it cast doubt on scenarios of human history that made technology in the form of the invention of better tools the sole engine of agricultural change — indeed the change from Maring agriculture to that of the Baliem Valley can be done with a stone axe and digging stick, not even a hoe is needed. Boserup's model also attracted great attention as it proposed that though land is a finite resource, it is not inelastic in its ability to produce food, given changes in agricultural methods. That is, increased population pressure on resources, at least in the short term, need not force people into a Malthusian dead end. The ingenuity and flexibility of even 'primitive' agriculturalists allow a way out.

Papua New Guinea's great range of intensification has provided a laboratory for testing Boserup's arguments — with regard to traditional systems and the present situation. Recent surveys of the country's agricultural systems have shown a variety of intensification techniques that have proven necessary in the face of a doubling of population since 1966. Currently, population continues to grow about 2.3 per cent per annum, which suggests a further doubling in 30 years. Because, over the period from 1966, people have not significantly expanded the area of garden land in use, food imports have not increased enough to feed the greater population, and there is no evidence of a major decline in nutrition, the additional food can be accounted for only by the intensification of production on land that was already in use.

Agronomist and geographer R. Michael Bourke (2001a) has shown the intensification techniques used to include the spread of higher yielding staple crops, particularly sweet potato, cassava, *Xanthosoma* taro, the potato and maize — all originally domesticated in the Americas. More productive cultivars, especially of banana and sweet potato, have also been adopted. Fallow periods have been shortened. Gardeners have also taken up or intensified mulching, drainage, enriching tree falls, soil tillage and several other efficacious techniques.
The Dani people of the Baliem Valley have drained large areas of swamp-land on the floor of the valley to bring the fertile soil into intensive cultivation. The Dani man in the photograph is demonstrating how muck from a drainage ditch is tossed on to the sweet potato bed as fertiliser.
Some Maring men have the power and knowledge of kunda; others do not. It seems not to be inherited, but learned from older men. Many men live all their lives without having kunda.

Men with it are said to be able to control the weather — through spells to bring or repel rain. Also, it is men with kunda who can grow taro and yams successfully in the ritually important heart of their gardens. In *Pigs for the Ancestors*, his study of the Maring community of Tsembaga, Rappaport translates kunda as ‘magic’. Kunda, he writes, refers to procedures involving the repetition of conventional formulae, or spells, that are said to derive their power from the words themselves, rather than from any other agency. As Rappaport describes it for the Tsembaga, the spells are used not only for gardening but in connection with the traditional cycles of fighting.

Kunda is not unique to the Maring. People in the Western Highlands just to the south of the Jimi Valley have a cognate word that suggests incantations that help a person, cure an illness or prevent misfortune. It also acts to protect an important person in the tribe lest his enemies work harmful sorcery on him.

The Kalam people, who live immediately to the north-west of the Maring, also have a word that is cognate to kunda. Ian Saem Majnep, a Kalam man who worked closely with anthropologist Ralph Bulmer, says in *Birds of My Kalam Country* (1977, 27):

There is not much that is important that I need to say about our gardens, except that to be a successful gardener a man must know much magic (kuj), as indeed to be successful in every other activity that men perform. Some men make big gardens and grow much food, and some make only small ones, but however large the gardens you make, you have to know the right kuj for these to be fruitful.

Garden magic in Papua New Guinea was made famous by Malinowski’s description of the practices of the Trobrianders, who live far distant from the Maring on low, flat coral islands in an environment very different from the steep mountainous home of the Maring. Malinowski notes for the Trobrianders the close relation between purely economic, rationally founded and technically effective work on the one hand, and magic on the other. Further, as regards the Trobriander gardeners, he writes, ‘there is no other aspect of tribal activity as fully and as naturally controlled by magic as the tilling of the soil.’

I was enchanted on seeing Bomagai-Angoiang men mutter incantations to their garden plants (particularly the ancient crops of taro and yams), for sometimes I saw their landscape as magical even though I knew it resulted from their subtle management, which had turned what had once been natural forest into an artefact rich in useful resources. Everywhere the people look, they see plants that provide food, fibre, perfume, medicines, and also plants that are valued for their beauty. Why not murmur incantations to make plants flourish — the word ‘incantation’ derived from ‘enchantment’.
Kunbun and his younger brother harvest pandanus fruits from an orchard established by their father.
Whose biodiversity is it anyway?

Policy-makers and project planners have an interest in viewing communities as clearly bounded, internally homogeneous and single-voiced entities with whom cooperative arrangements may be developed.

— Flip van Helden 2001, 23

In the mid-1960s a large area of unsettled forested land lay to the south-east of the Bomagai-Angoiang’s territory. But it was not unused or unclaimed. The Bomagai, the Angoiang and two neighbouring clans all claimed parts of it on the basis that they and their fathers before them had planted pandanus trees there. Angoiang and Bomagai men had also established small unfenced plantings of Abelmoschus (Hibiscus) manihot, a shrub that bears edible leaves. In 1964 several Angoiang men and women walked a day and a half into this area and for the first time made a fenced sweet potato garden in a place known as Kumoints. They did this under impetus from Ngunt, an Angoiang ‘big man’ who seemed to have a great affection for Kumoints and who argued that more food was needed in Kumoints because his people hunted cuscus possums and birds of paradise there and because Kumoints was halfway on a trail to a small outlying settlement of upper Jimi River people from whom the Bomagai-Angoiang sometimes acquired brides. So, a sort of frontier advance was taking place.

To my knowledge, in the mid-1960s patrol officers and other outsiders never went there and considered it no-man’s-land. Now it’s everyman’s land, an area subject to a whirlpool of conflicting issues that include sustainability, conservation, economic development, biodiversity, poverty, local versus global, and the state versus civil society. In 1993 the Bismarck-Ramu area, which includes Kumoints, was selected by national and UN agencies to be an Integrated Conservation and Development Project (ICAD) because it was seen to be a very high priority area for biodiversity conservation. The story of what happened next is symbolised in the title of Flip van Helden’s book about the project: *Through the Thicket: Disentangling the Social Dynamics of an Integrated Conservation and Development Project on Mainland Papua New Guinea* (2001a).

Very crudely put, the entanglement the ICAD project experienced resulted from several misapprehensions on the parts of project personnel and local people: misapprehensions over the legitimacy of the ‘biodiversity crisis’, over a land-tenure system that recognises the primacy of local communities over land and resources, over what ‘development’ means and how it is achieved, over conflicts between migrants (from the more densely settled upper Jimi Valley) and local landowners, over the distribution of jobs, over the monetary value of biological specimens, and over the belief that ‘community’ in the sense of people sharing a locality means that those people share viewpoints and goals. Environmental quandaries are not just scientific; they include clashes between cultural, political and moral universes. Who conserves what, for whom, and why? Who benefits?
To those unfamiliar with forest clearing for a shifting garden, this photograph may look like a scene of devastation. But, as suggested elsewhere on these pages, the forest will return, perhaps richer in plants useful to people than it was before.
Anthropologist Clifford Geertz uses the term 'being there' to signify what it is ethnographers do when in the field, when they are penetrating or, if you prefer, being penetrated by another way of life. It's an odd thing to do: to endure being lonely and physically uncomfortable, to walk for months only on muddy tracks, to suffer leach bites while crossing mountains in the rain, rarely to have any privacy, to deal with tenacious infections and frightening fevers, to try to learn at least a little of a wholly alien language, to lack customary entertainments, to realise that the roof of your hut will never stop leaking, to know that you do not fully understand what is happening among the people around you. Why do we do it?

In part it is to try, when we return to our desks — to 'being here' — to have learned enough to catch in writing something faithful to the reality we saw while living among the people in their place.

At least 13 ethnographers or scientists with interests in ethnography have 'been there' among the Maring, the majority of us during the 1960s, not that long after the Maring's first contacts with Westerners. I knew, well or fleetingly, most of these people, four of whom are now dead. As with any group of observers, each of us arrived possessing our own particular blindness, and, like the blind Indian sages in the fable, we touched different parts of the elephant. It would have been exciting and engrossing if we could all have met together at least once, for in a way I see us as members of a singular guild — a group of outsiders unique for having made the effort to reach the Jimi and Simbai Valleys and to stay there seeking experiences that would teach us something about a world that no longer exists. I would think that for all of us the discomforts soon dimmed in our memories, and 'being there' came to be an inspiring chapter in our lives. Our intention was to learn something about the Maring — and in that effort we also learned about ourselves and our own worlds. When we left the Jimi and Simbai Valleys we carried away affection for the people we had known there — and felt deeply in their debt.
Bomagai-Angoung men performing a ceremonial dance. The drums held by the men in the left foreground are made by hollowing out tree trunks with burning coals; the drumhead is made of wallaby skin.
Epilogue

As I write, the situation of the world has parallels to the late Roman Empire. A single nation dominates but, as with Rome, military supremacy has not bestowed security. Having had its emblematic castles assaulted, the lone superpower visited retribution upon those it called malevolent, finding as it did so that walls and strength of arms and wealth would be insufficient to shield it, that the campaign had no clear, no certain end in sight. And at the superpower’s economic and political heart cunning manipulators seek personal benefit at the expense of public well-being at home and across the world.

In Papua New Guinea the state is fragile, population growth remains rapid, government funding falters, the fabric of infrastructure is worn where not torn, and forest loss continues without commensurate return except to a few who will not be afflicted by its loss.

Not wholly untouched by these apprehensions, the future of the Maring, in their mountain valleys, also remains uncertain. Indeed, for us all, life

... is a formal dance
In which each step is ruled by what has been
And yet the pattern emerges always new,
The marriage of linked cause and random chance
Gives birth perpetually to the unforeseen.
Two young Bomagai-Angeang men posing in ceremonial, largely traditional, garb in 1965 while holding their traditional bows and arrows. Today they would be wearing shorts and T-shirts. Because their homeland is now a remote and poor part of the country, it is unlikely that many of its people yet have modern guns — although such are common in parts of the Highlands.
Notes and Sources

I have not weighed down with academic sources the texts that accompany each colour photograph. Instead I list here some of the sources that informed and refined my remarks. Given the enormous amount of research and writing that has focussed on Papua New Guinea in the decades since my fieldwork in the Simbai Valley, there are many possible sources of information I have not included. But I have tried to list all those from which I have directly taken ideas or comments.

I have also included a few black-and-white photographs as a further contribution to the visual ethnography of the Maring.

PREFACE

Roy Rappaport’s *Pigs for the Ancestors: Ritual in the Ecology of a New Guinea People* is one of the best known anthropological studies to come out of Papua New Guinea since Malinowski’s work on the Trobriand Islanders. Rappaport tenaciously proposed that ritual among the Maring-speaking Tsembaga clan had an ecological function whereby ritual activities acted to regulate the relations of people with their environment by operating as a negative feedback mechanism that maintained a number of variables in an equilibrium state beneficial to the people and their environment. Rappaport (1984, 224) describes his purpose in *Pigs for the Ancestors* as follows:

It has been argued that the regulatory function of ritual among the Tsembaga and other Maring helps to maintain an undegraded environment, limits fighting to frequencies that do not endanger the existence of the regional population, adjusts man-land ratios, facilitates trade, distributes local surpluses of pig in the form of pork throughout the regional population, and assures people of high-quality protein when they most need it.

I found Rappaport’s functional analysis of Maring ritual operating as a homeostatic mechanism interesting but remained sceptical if for no other reason than that I did not believe neatly maintained equilibria were to be found in any human population or ecosystem, however defined. Nor did I believe that the Maring environment was free of degradation. Even the actions of a stable population of swidden gardeners are an agency for change in a forested environment, with an inevitable drift from old forest toward younger forest and grassland. Buchbinder (1973), another scholar of the Maring, found Rappaport’s equilibrium model to be less accurate than the dynamic model that she proposed. The equilibrium model has also been criticised as a form of ‘vulgar materialism’ (Friedman 1974) and on methodological grounds (McArthur 1977). Anthropologist A. P. Vayda, who was director of the research project that gave rise to the initial publication of *Pigs for the Ancestors* (Rappaport 1968) and who initially strongly supported the book’s arguments, later revised his views (Vayda 1986, 1996), considering, among other points, that the Tsembaga’s ecosystem was less bounded than Rappaport believed and
that its (questionable) equilibrium could as well be fortuitous rather than the result of teleological control. Further discussion of the argument of Pigs of the Ancestors is to be found in the reanalysis of Rappaport's ethnographic data in Peoples (1982) and the accompanying comments of a number of other scholars of Papua New Guinea.

Criticisms of the concept of carrying capacity and the static character of agriculture can be found in Boërup (1965), Clarke (1966) and Street (1969), all of whom believed in the efficacy of agricultural intensification — applying more labour or improved techniques to a fixed amount of land in order to increase its agricultural output.

That I hold this view now is paradoxical in that much of my research work over decades has focused on Pacific-Islander indigenous knowledge of agriculture and plants and I have argued in support of the value of such knowledge in today's world (Clarke 1977; 1978; Clarke and Thaman 1993). I still believe it has much to offer but also think that support for indigenous knowledge as a miracle fix turns our attention away from other perhaps more valuable attributes of traditional agriculture and diverts us from broader, more difficult tasks — in the place of which we attempt to apply one more technological cure, this time in the form of indigenous agricultural techniques.

**LEARNING FROM NGIRAPO**

Much of what Ngirapo taught me found its way into my PhD thesis and the book derived from it (Clarke 1971). With a more direct focus on the man himself, I later wrote more about Ngirapo's agronomic and ecological knowledge, assessing the extent to which it was or was not relevant to sustainable agricultural development in today's world, concluding that — rich and fascinating though indigenous knowledge is — it is not a kind of magic or wisdom that will save the village, much less the world, from environmental degradation (Clarke 1993).
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**THE PEOPLE, THEIR PLACE**

Maring orchards are described more fully in Clarke (1971) and later in this book. Their flowing integration into the Maring gardening system makes the people’s whole landscape more fruitful than it would appear from a glance at the gardens alone.

**LOVE AND MARRIAGE and COURTING PARTIES**

Marriage, courtship and courting parties have been frequently described in Highland ethnographies. See, for instance, Brown 1978, Glass and Meggitt 1969, Langness 1999, Silktoe 1998, A. and M. Strathern 1971. Rappaport (1969) wrote specifically about marriage among the Maring. Buchbinder (1991) investigated the high rate of suicide among Maring women as well as among many other groups in the New Guinean highlands. She paints a darker picture of women’s life than I do, noting that unwillingness to marry or the presence of rancour in marriage are usually antecedent to a woman’s suicide although other forms of interpersonal conflict may also trigger the event. ‘It is clear,’ Buchbinder writes (1991, 180), ‘that in these cases suicide is the last desperate act of a helpless and unbearably unhappy woman.’

**ANTHROPOLOGY AND A WOMAN IN HER GARDEN and MORE TO RIAUI**

Kenneth Read’s *The High Valley* was first published in the US in 1965 and in Great Britain in 1966 and republished in 1980 as a classic anthropological study of New Guinea. When first published, *The High Valley* stood almost alone as an
example of the now common 'reflexive' research wherein the pretence of objectivity on the part of the researcher is dismissed and the effect of the personality or the presence of the researcher on the investigation is taken into account. Often now, however, reflexivity is present in the service of political correctness and points to issues of dominance and submission or to the difficulties of representation by an outsider. Read's book remains unusual in the deeply humane tone he uses in describing his relations with the Papua New Guineans he lived among (Langness and Hays 1987, vii–xi).

WIVES DO ALL THE HARD WORK, THEY ARE THE HANDS OF MEN

The quotation about wives being the hands of men comes from a paper about men and women among the Fore people of the Eastern Highlands by anthropologist Shirley Lindenbaum (1976, 59). As for dark sexual politics, Brown and Buchbinder (1976, 1) assert that 'ambivalent and antagonistic relations between the sexes are a prevailing theme of Highlands life'. A more recent review by Langness (1999) comes to a similar conclusion, while recognising the variation in behavioural patterns within New Guinea. In a paper specifically about the Maring, Georgeda Buchbinder and Roy Rappaport (1976, 31), two ethnographers of the Maring, assert:

As far as men are concerned, women are potentially unreliable, disloyal, and disruptive. Given that the crucial nature of their contribution to their groups' survival is thoroughly understood by the men, it is not surprising that the men, feeling both endangered and dependent upon them, should attempt to dominate them, and the domination of women and the notion of women's polluting qualities are obviously compatible.

Rappaport's classic work Pigs for the Ancestors: Ritual in the Ecology of a New Guinean People (1968) provides a comprehensive account of pigs among the Maring and the ever-increasing work they necessitate when being accumulated in large numbers for a ceremonial pig killing.

THE FOREST IS THE MOTHER OF THE GARDEN

Extended descriptions of Maring agriculture can be found in Rappaport (1968) and Clarke (1971).
An Eccentric Ethnography

A WORLD WITHOUT PEOPLE CONTAINS NO NAMES

Roger Keeing (1982) wrote similarly about the landscape of the Kwaio, a people of Malaita in Solomon Islands.

ORGANIC HOUSES

Every house has at least one hearth, a circle of rocks around a circular depression in the floor. Because the houses have no windows or chimneys and the doors are often closed with planks, smoke from the fires, which burn all night, escapes only slowly by seeping through the roof and walls. Piles of firewood are dried on a rack suspended above the hearth. Tucked behind the rafters or laths, which glisten black with smoke, are bundles of drying tobacco leaves and leaf-wrapped packages or bamboo tubes containing valuables such as feathers to wear at ceremonies or seeds for new gardens. In many houses, an earth oven has been dug near the door for use in bad weather.

Although similar in construction and materials, each house has unique features, some of which are illustrated in the floor plans shown here.

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a. Detail of front of house with front overhang of roof cut away.

b. Men's house. Two to three men and several boys sleep in this house. Bamboo platform at rear.

c. Woman's house. A single married woman with no children lives in this house. The two compartments along the side are for pigs, who enter through their own doorway from a fenced passageway. The pigs are kept in separate compartments at night to prevent fighting. Like most women's houses, this house has an interior wall that secludes the woman's sleeping chamber from the doorway. Bamboo platform at rear.

d. Family house. Living in this house are a man and his wife, two small boys and three unmarried girls. A sixth child, an adolescent boy, sleeps in a man's house at another hamlet. The man sleeps on the mat on the opposite side of the house from the pig compartments. The woman and children sleep in the rear chamber where there is no bamboo platform. After the children are asleep, the woman may go to the man's sleeping place. One pig compartment contains two large females, the other two small males. An eight-inch casewary is kept inside the house at night.

e. Women's house. This is the only house of this type in the basin, but it is said to be an innovation — just a style seldom built. Each chamber is occupied by one woman (a mother and her daughter-in-law) and is essentially a separate house. Rather than mats or platforms, wooden planks are used for sleeping. The side opening into the pig compartments are also an unusual feature.

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Ridgepole posts
Wall posts
Earth oven
Hearth
Fence

Floor Plans
0 1 2 3
nears

— 149 —
Nakemba and Ngirapo work together to build a house wall of pandanus leaves.

BECOMING A PERSON

Bambi Schieffelin's book, *The Give and Take of Everyday Life: Language Socialization of Kaluli Children* (1990), is devoted to understanding the everyday speech activities that organise and give meaning to the social relationships between young children and the members of their families.

These everyday speech activities are in fact socializing activities, the basis for the transmission and reproduction of culture. They are linked to such other social practices and symbolic forms as exchange systems, gender roles, sibling relationships, rituals, and myths. In Kaluli society, as in many other societies in Papua New Guinea, reciprocity is an important principle underlying social life. In families, social relationships are constituted through giving and sharing food: a primary means of conveying sentiment and affection. (B. Schieffelin 1990, 1)

In their works on Maring communities, Rappaport (1968, 119, 125), LiPuma (1988, 108, 231) and Lowman-Vayda (1971, 328–329) define and discuss nomane. In *Arrow Talk*, Strathern and Stewart (2000, 64–65) discuss and describe the range of complex ideas referred to by the cognate word noman among Melpa speakers, who occupy territory in the Central Highlands near Mt Hagen and extend into the Jimi Valley, where Melpa land abuts Maring territory.
Noman can be glossed variously in English as mind, intention, will, agency, social conscience, desire, or personality. These ranges of meanings need to be considered processually, in relation to the life cycle and the social interactions of the person. Noman distinguishes human beings from most other beings in the world. Dogs and pigs are the only other animals said to have a noman. The noman is not something a child is born with. It is a growth that comes into being when a child begins to understand and use language, and language use is the most powerful indicator of the state of the noman.

The noman develops through the process of interacting with other persons, the environment, and the ancestral/spiritual world. Throughout a lifetime a person will experience many different noman, or states of mind. The goal for most people is to obtain a strong and unified state of the noman.

RETURNING TO THE LAND

Further details on death and funerary rites among the Maring can be found in LiPuma (1988) and Rappaport (1968). Full descriptions and discussion of Maring warfare can be found in LiPuma (1988), Rappaport (1968) and Vayda (1971; 1976).

IN HARMONY WITH THE ENVIRONMENT?

Anthropologist Ralph Bulmer, who knew more about indigenous knowledge and the relation of people to their natural surroundings in Papua New Guinea than most other scientists, wrote about the impact people had on the country long before European colonisation and noted that (Bulmer 1982, 63):

The record of the past suggests that traditional Papua New Guinea societies scored more points for adaptation, innovation and development of new resources than they did for conservation. There is little evidence that Papua New Guineans were or are very different from the majority of humanity who have not been greatly concerned with the long-term conservation of their natural environment. What they were and still are concerned with, very directly and very profoundly, are the present and immediately foreseeable yields of their crops and catches and the amount of time, effort and care required to produce them. Many activities of pre-contact man were conservationally sound; but they were incidental to maximizing immediate yields for little labour. It was good conservational practice for shifting cultivators to let the land lie fallow for fifteen or twenty-five or forty years — whatever the
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optimum period to ensure both an undiminished crop and less effort than hacking down additional primary forest or rooting out pitpit [a large, coarse, tough grass]. But conservation was not the object of the exercise. The object was to get that next good crop for a reasonable minimum of labour.


The myth of primitive ecological wisdom is not just an incidental part of the romantic package carried by some environmentalists. It is fundamental to the radical environmentalist critique of industrialism, for without the assumption that non-industrial societies live sustainably in their environments, there would be no grounds for arguing that industrialism is the cause of environmental destruction. . . . One of the clearest messages that anthropologists can give to environmentalists is that human beings have no 'natural' propensity for living sustainably with their environment. Primitive ecological wisdom is a myth, not only in the anthropological sense, as something whose truth is treated as a dogma, but also in the popular sense, as something that is untrue, a fantasy.

I have also written further about this issue (Clarke 1990; 1993).

RECEIVING AND GIVING/BUYING AND SELLING


With specific attention to the Maring, Healey (1990) treats gifts and prestations as well as exchange in the form of trade, to which he also ascribes a strong social motive. The deepest analysis of the
meanings and function of exchange among the Maring is Edward LiPuma’s *The Gift of Kinship* (1988).

**NOW IS THE TIME OF MONEY**

What I describe in the first paragraph is Alfred North Whitehead’s fallacy of misplaced concreteness, which Nicholas Georgescu-Roegen named as the indisputable sin of standard economics. A recent discussion of the mysterious qualities of money and its relationship with the concept of endless exponential economic growth in a limited physical world is to be found in Herman Daly’s and John Cobb’s *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future* (1994).

**HOW POWERFUL A PLANT**

Further details on the significance of cordyline to the Maring can be found in Buchbinder and Rappaport (1976), Clarke (1971), LiPuma (1988) and Rappaport (1968). An interesting recent article by Ehrlich (2000) describes the variety of uses of cordyline across its entire geographic range, placing emphasis on its use as food and in fire-walking rituals.

**A NICE WOMAN**

The comments about Evan-Pritchard come from Geertz (1988, Chapter 3). The comments by Epeli Hau’ofa come from his 1975 paper. The points Hau’ofa makes are further discussed in White and Tengan (2001).

**AT THE TAIL OF THE SNAKE**

The comments and quotation by Geertz come from his chapter entitled ‘Modernities’ in Geertz (1995). My paper (Clarke, 1980) presents in more detail what happened to the Bomagai-Angoiang between 1964 and 1977. The comments by Pitt-Rivers (1927, 57–58), made more than 70 years ago, about the concentration of population versus tendencies toward decentralisation echo still in the light of conflicts over political decentralisation and rapid urbanisation in the past few decades. The phrase ‘the seductive powers of money’ is drawn from anthropologist Roger Keesing (1978, 181) writing about old values and new discontents among a people remote from the administrative and economic centre of Solomon Islands. A great deal has been written about gift-exchange in Melanesia and the issues of equality or inequality. See, for instance, Godelier (1999), Jolly (1982), M. Strathern (1987) and A. Strathern (1982). The plume trade is detailed in Swadling (1996).
Anthropologist Neil Maclean began research among a Maring group in the Jimi Valley in 1979; his focus was on the internal structure of Maring political economy and how this influenced people's response to incorporation into the nation state and the cash economy. Papers of his continue the history of the Maring with regard to money, commoditisation and other development issues in an underdeveloped area (Maclean 1981; 1989; and 1994).

THE GAP BETWEEN CITY AND COUNTRY

The book *Papua New Guinea Rural Development Handbook* (Hanson et al. 2001) was prepared by geographers with long experience in rural Papua New Guinea to provide the PNG Department of National Planning and Monitoring with reasonably accurate (if broad-brush) information about economic conditions across the country, with special regard to those people who are poor, remote and marginalised. The estimate for the percentage of PNG's population that is rural comes from statistics available from the Demography/Population Programme, Secretariat of the Pacific Community (2000). The citations for the quotations are Ward (1998) and Ogan (1996).

An extended discussion of the critique that anthropologists study Melanesians as alien communities isolated from the modern world and essentialised as the 'Other' can be found in Carrier (1992).

In a volume prepared for Australia's Overseas Aid Program and entitled *Enclaves or Equity: The Rural Crisis and Development Choice in Papua New Guinea* (2001), economist Michael Baxter analyses the serious social and economic crisis that affects rural Papua New Guinea, noting that it has been evolving since the country's independence, but particularly took hold during the 1990s. He writes further (Baxter 2001, 4) that policy-makers in Papua New Guinea 'have generally placed a lower priority on the needs of the rural population because of their distant location and muted voice due to widespread illiteracy and weak links with the national political system'.

BEING AND CREATING

A woman with an infant would be likely to use two bags, one for the child, the other for garden produce and firewood. Today, bags, if not made from imported threads, are at least likely to have brightly coloured commercial yarns added for decoration.
A wholly traditional Bomagai-Angoiang string bag.

Aside from the string bag hanging down the woman's back, this Bomagai family displays other ubiquitous belongings: the man with an axe and bow and arrows, the woman and her daughter with their dibbles, or garden digging sticks. Their pubic aprons are handspun out of local fibres.

**A QUESTION HAS MORE THAN ONE ANSWER**

Further details about the rawa mugi can be found in Rappaport (1968) and Lowman-Vayda (1971)

**BLEMISHED BEAUTY and A CURE FOR NGIRAPO**

(Comments on Maring health)

Because the health of a society, like that of an individual, is forever in flux, "when?" is as important a question as "what?" in matters of health. The period of Maring history that I am particularly concerned with was one of a radical transformation in medical treatment from a system that included magic, shamanism and local medicines made from plants to one based on physical diagnosis, health clinics, visiting medical patrols and modern commercial drugs. It might seem surprising that the introduction of new forms of treatment and new explanations about the causes of disease did not act as a disturbing break in traditional practices or in beliefs about sickness, but the Maring pragmatically incorporated Western and traditional systems into a medical pluralism that gave them the choice of alternative treatments or the simultaneous use of both, as in the dual way NgiraPO treated his kus.

I can give only a fragmentary account of Maring health as it was in the 1960s, with a few notes on the times earlier and
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later. The points I do touch on are gleaned from my field observations, from talking to the nursing sisters at the Anglican missions at Simbai and at Koinambe in the Jimi Valley, and from the written accounts of Rappaport (1968), Buchbinder (1973), McArthur (1977) and LiPuma (1989), as well as from more general discussions of health in Papua New Guinea during this period.

The commonest direct causes of death in the Ndwimba Basin in the mid-1960s were pneumonia and severe bronchitis, both of which were probably aggravated by the smoky air of the low-roofed houses as well as by the habit of smoking harsh local tobacco wrapped in leaves or newspaper. When I returned to the Ndwimba Basin for the last time in 1977, most of the older men I had known well and who had died since 1965 had suffered from respiratory disease as their last illness — as nearly as I could know. But there was no clear evidence of tuberculosis in the 1960s.

Because — like any European visitor in remote parts of Papua New Guinea in those years — I was looked upon as a 'dokta' and carried medical supplies for distribution, people seeking cures often gathered at the door of my hut. Their commonest request was for medicine to treat ndukma, which I took to be malarial ague since their symptoms usually disappeared rapidly after they took malarial suppressives. A Department of Public Health survey in 1963 found that about 20 per cent of the Bomaga-Angoiang and the neighbouring Fungai-Korama tested positive for malarial plasmodia in their blood, which was a higher incidence than the 12 per cent positive result for the total Maring population — the difference reasonably explained by the location of the Bomagai-Angoiang and the Fungai-Korama at a lower elevation than most other Maring groups.

Other ailments included something like the common cold and a mild influenza, which, although not serious of themselves, at times led to pneumonia and bronchitis. Intermittently, according to Maring accounts and to historical records, epidemics of serious and often lethal influenza or dysentery have at times sickened much of the Maring population and other large areas of the island of New Guinea. The Maring believe that such serious afflictions reveal the presence of disharmonious relationships between people or between people and the ghosts and spirits of their place. Consequently, epidemics led people to abandon their houses, burn them and move somewhere else, often into a more dispersed settlement pattern, as happened in the early 1940s when a widespread sickness referred to in medical reports as dysentery induced a scattering of houses and settlement that the Maring still talked about in the 1960s.

Other afflictions were parasitic worms, eye infections and hepatitis. Skin infections arising from insect and leech bites, cuts, scratches and burns were common and
sometimes developed into tropical ulcers. Unpleasant but not life-threatening conditions were tinea and scabies. Neither yaws nor venereal diseases were evident in the mid-1960s. Yaws may have occurred before prophylactic injections of penicillin were given to the people present at the 1961 census, but the patrol officer who visited in that year reported that no cases of yaws were seen. Leprosy and filariasis occurred here and there in the Maring area, but I saw no cases in the Ndwinba Basin. Contrary to arcadian myth, toothache, loss of teeth and tooth decay — moving from the gumline to the crown — were common, even among the young.

I did not observe any obvious examples of cretinism among the Bomagai-Angoiang, but a mild form of cretinism was reportedly common among Maring speakers in the Jimi Valley. I did see what to my unmedical eye looked like cases of goiter. Medical surveys in the 1960s reported that in the severely iodine-deficient areas of montane New Guinea, as much as 3 per cent of the population suffered from cretinism. Buchbinder (1977) reported goiter to be endemic among the Maring in 1968 and that several children were cretins with multiple neurological defects. She attributed these conditions to the displacement of the traditionally used salt made from salt springs by noniodised trade salt. After the disorders were discovered, women were given injections of iodised oil, and commercial salt was iodised. By 1974, there were no visible goiters among Maring women and no more cretins were born to the treated women.

Among Maring researchers, the most vexed issue relating to health had to do with the adequacy of protein in their diet. I found most Bomagai-Angoiang to be active and strong and, certainly, to have great endurance. Certainly, too, they were only rarely short of food, mostly having available more carbohydrate than they needed. But malnutrition with regard to protein may have existed. Gewan, who was wife to a Bomagai man, had symptoms — listlessness and soft reddish hair — that suggested protein deficiency. A few children had similar hair and a slight oedema, which is another symptom of protein deficiency. But at the same time they were active and cheerful.

Anthropologist Roy Rappaport, who lived among the Tsembaga, a Maring

Gewan, wife to a Bomagai man in 1965.
Her reddish hair, listlessness and emaciation suggest a protein deficiency.
group living a day's walk up the Simbai Valley from the Ndwinba Basin, also noted mild protein-deficiency. Buchbinder, who carried out extensive research on Maring nutrition and health in the late 1960s found children displaying at least some signs of protein undernutrition in all the Maring groups in the Simbai Valley. She also observed five cases of children suffering indisputable kwashiorkor, all because they had been displaced at the breast when their mothers gave birth again while the earlier children were still dependent on breast-feeding to gain adequate protein.

On the basis of his fieldwork, Rappaport suggested that stress-induced conditions, which were intensified by insufficient protein in the diet, were relieved by an increase in the supply of protein when the Maring held ritual pig feasts in association with wars or when they sacrificed pigs when someone was seriously ill. When Rappaport’s book *Pigs for the Ancestors* was published (1968), his argument that ritual and religion could have ecological effects aroused intense interest. He later recanted this view to some extent in the face of arguments from other observers that his data were inadequate to show with certainty that the diet was protein-deficient or that the pork was distributed to those most in need of additional protein.

One thing that all observers of the Maring or similar peoples would say is that measuring dietary intake and quality can never be a fully accurate procedure. Further, the distribution of food may never fully match the nutritional needs of particular individuals. Women and children of different ages eat or are allocated different foods from each other; men are subject to food taboos under various conditions, sometimes enduring diets that exclude most protein-rich foods.

Beyond these difficulties besetting research, what I can say when I look back at mealtimes in Maring hamlets in 1964 is that not only was there a deep sense of community participation in food preparation and consumption, but the food was varied and fresh and would have delighted a present-day health-conscious nutritionist. There were then still no commercially processed foods of any sort; all the food eaten came from local gardens, from domestic pigs and chickens, or from hunting and gathering. Their food was low in salt, sugar and fat (except on the sporadic occasions when the much-prized pig fat was available); the food was rich in fibre and complex starches, much of it delicious to my taste. I still sometimes long for the tender but crisp shoots of tree ferns steamed in the earth oven and covered with the bright-red oily sauce made by squeezing the steamed fruits of the locally cultivated pandanus — a unique combination of taste and texture.

In contrast, across the Pacific Islands today there is a scourge of malnutrition as
locally produced tubers and vegetables are replaced by refined flour, sugar- and salt-rich foods, and fatty tinned beef, mutton flaps and turkey tails. Diabetes, obesity and coronary ailments are the result.

Has Maring health improved or worsened since the 1960s? No doubt, some diseases of modernisation have increased though I would guess that since the Maring must be comparatively poor and isolated they have not become overly dependent on imported food. I cannot know whether the HIV/AIDS epidemic that threatens Papua New Guinea nationally has reached the Simbai Valley (Malau 2001). Like the country as a whole, the Maring probably still have a relatively high infant and child mortality rate. On the other hand, the population growth rate is probably higher than the low growth I recorded for the Bomagai-Angoint between 1964 and 1977 (1.6 per cent growth per annum) and the slight decline in population that Buchbinder reported for the whole Maring population for three years in the late 1960s, a decline she attributed to introduced diseases such as influenza.

AXES, STONE AND STEEL

Ngirapo hafted an old stone axe blade in the traditional (but somewhat makeshift) way to pose for this photograph of the old and the new implements

AN AXE IS AN IDEA

Aside from being the major tool of prehistoric New Guinea, stone axes that were more delicate and finely smoothed than the utilitarian chopping instruments served as bridewealth and were significant in ceremonial exchanges. In Maring country, a few axes of inferior stone were made locally, but axes were mostly traded in from places with quarries of superior
stone. For the Maring, the principal source of axes was the Ganz-Tsenga area south of the Jimi River. The wide distribution of these axes and of axes from other quarries contradicts any notion that Stone Age communities huddled in fearful isolation with no contact with each other. Wars and raids, killings and routs there certainly were, your neighbours were often your enemies, and crossing boundaries between clans could be perilous, inviting either physical assault or the possibility of sorcery. Nonetheless, a network of trade routes extended from coast to coast, as shown by the presence of marine shells everywhere in the Highlands. Along with a variety of shells and stone axes, other widely traded items were salt, bird plumes, animal furs, pigs, tree oils, pigments and pottery.

This complex flow of prehistoric trade items had no master organisational structure — no Stone Age trade bureau overseeing the relations of supply and demand or setting the exchange values of different items. Rather, the totality of the trade network was created by and built up from the interlocking and overlapping personal trading networks of individual men, with the trade goods moving through a chain of intermediaries so that when the Simbai Valley Maring made salt from saline springs to trade for Ganz-Tsenga axes, neither the salt maker nor the axe grinder knew directly of the existence of the other, for the goods moved in their contrary flows through a series of separate transactions before reaching their final destinations. Hughes (1973 and 1977) closely examined Stone Age trade in a large area of the Papua New Guinean Highlands and the Highland Fringes, including the Maring territory. Healey (1990) deals specifically with Maring traders (and hunters).

Several descriptions of the work carried out at stone-axe quarries and axe ‘factories’ provide a clear understanding of the manufacturing process. Blocks of rock — sometimes loosened by fire, at other times by hammering, or prying with poles — were extracted from rock faces and split with hammer stones, the best pieces then being hammered, flaked and pecked into rough shape with a pebble. Or, at some quarries, large pieces were formed into rough shape by being 'sawn' with the edge of a narrow piece of hardwood worked back and forth with sand and water. The blanks were then ground on wetted sandstone blocks.

Mick Leahy, who in 1933 was on the first European patrol to the area of the Ganz River axe factory, described the grinding process (Leahy and Crain 1937, 183):

We saw many natives engaged in working the axes, sitting by waterholes and patiently grinding away at them with sandstones, stopping every few moments to dip the stones in water and to sight with a craftsman’s eye along the tapering
blades, so slowly taking shape. Each beautiful axe must have required many days of patient work.

As Leahy's account suggests, axe-making was a communal, not an individual, pursuit, with all the men of the community where the quarry was located engaged together in the quarrying process, which could involve not just breaking rock from pits or rock faces but shaft-and-gallery mining. In the slow process of shaping the rock pieces into axes, some men were recognised as specialist master craftsmen, whose axes were considered to be particularly efficient and aesthetically pleasing.

Burton (1984), in his detailed account of axe making in the Highlands, says that quarrying and axe making began some 2500 to 1500 years before the present. Given the social organisation required in the quarrying methods and the need for trading partners to make the quarrying worthwhile, Burton argues that the lineaments of recent Highlands society, with its concerns with exchange and ceremonial prestige, has deep roots. The Highland people have a variety of myths about the discovery of quarries and axes, with a woman being the main actor in many of them. For instance, during his research on axe making, Burton (1984, 173) was told the following myth by a man of the Make Tsendembo clan:

A long time ago an old woman went to her garden near the stream called Tingri. She dug up some sweet potato tubers and took them to the stream to wash them. As she was doing this, a stone in the streambed banged against another, making a ringing sound. The stone sounded strong so she took it home to her husband, Win Kang, the ancestor of the Make [clan]. He broke it and saw how good it was. Then he made it into an axe and saw how well it could fell a tree. In modern times men lit torches, went into the tunnels and dug the stone out with sticks.

Other publications that deal with stone axes in the New Guinean Highlands are a review of recent and prehistoric stone tools (S. Bulmer 1966), a description of the axe quarries in the Highlands (Chappell 1966), Stone Age trade over a wide area of the Highlands and foothills (Hughes 1977), a precisely illustrated description of how the axes were hafted, used and maintained (Sillitoe 1988) and a focus on trade in stone axes and other goods within the Maring realm (Healey 1990). More concerned with the economic consequences of the change from stone to steel is Richard Salisbury's study (1962).
NATURE, CULTURE AND CASSOWARIES

The material from Healey comes from his 1991 paper. He further discusses cassowaries in Healey (1985 and 1990). See also Buchbinder and Rappaport (1976). Bulmer (1967) in a classic paper treats the cassowary among the Karam (or Kalam), who are neighbours to the Maring on the west.

YOU ARE WHAT YOU DON'T EAT

For further details on food taboos among the Maring, see LiPuma (1988) and Rappaport (1968), anthropologists of Maring groups other than the Bomagai-Angoiang. Some aspects of the large literature on the significance of food in Melanesia has recently been reviewed by Lemonnier (1996) in his chapter in Food and the Status Quest. What has become a classic study of the symbolic idiom of food in competitive food exchanges in a Melanesian society is Michael Young's Fighting with Food (1971). In a chapter entitled 'I'm sorry, brother, I don't eat that' Edward Schieffelin (1977) provides interesting details about food and social relationships among the Kaluli people.

IT DEPENDS WHAT YOU MEAN BY 'SECURITY'

The quote about food security is from page 5 of Bourke (2001b). Further details on Bomagai-Angoiang gardens and diet and my estimation of the carrying capacity of their territory can be found in Clarke (1971). LiPuma (1988) and Buchbinder and Rappaport (1976) discuss aspects of sorcery and food and the relationship of ingesting food with sexual activity among the Maring.
PIGS

More descriptions of pig herds and prestations among the Maring are to be found in Rappaport (1968) and also in LiPuma (1988) and Healey (1990). Details of pig herding, pig kills, their purposes and significance appear throughout the wider ethnographic literature on New Guinea, a universality that demonstrates the importance of the animal.

Feral pigs are common in forested areas such as the lower Simbai and are eagerly pursued when encountered. The feral and domestic pigs are the same species, with feral boars often breeding with domestic sows, and feral piglets being captured and reared in the domestic herds. The antiquity of the pig in New Guinea remains open to debate but it is generally agreed that the animal is a hybrid of the wild boar (Sus scrofa) and the Celebes wild boar (Sus celebensis), as argued by Groves (1981). In the 1960s all the Bomagai-Angoiang's pigs were of the 'native' type: black, slab-sided and long-nouted. Since then improved European breeds of Sus scrofa have been widely introduced.

LANDS RICH IN THOUGHT

The quotation from Tjibaou was translated from the French by Eric Waddell (1993). The ideas expressed by Tjibaou are further explored in Clarke (1995).

INVENTING UNDERDEVELOPMENT

A myth-shattering analysis of the development imperative is to be found in Wolfgang Sachs's Planet Dialectics: Explorations in Environment and Development. Another well-known book on a similar theme is Arturo Escobar's Encountering Development: The Making and Unmaking of the Third World. Two studies by anthropologists that deal with the impacts of economic change on local people are David Hyndman's Ancestral Rain Forests and the Mountain of Gold: Indigenous Peoples and Mining in New Guinea and Michael French Smith's Hard Times on Kairuru Island: Poverty, Development, and Morality in a Papua New Guinea Village. Eugene Ogan (1996) recognised both these works as significant contributions of a kind that has been too rare in the ethnographies of Papua New Guinea, which have tended to treat the exotic, the 'untouched' societies, rather than pay attention to sociocultural change and Western influence.

TELL THE TRUTH BUT TELL IT SLANT

Franklin (1972) provides references to literature on the widespread use of speech concealment and ritual languages in Papua New Guinea. Bulmer (1967) discusses a
secret pandanus language in use among the Kalam, who are near neighbours of the Maring. LiPuma (1988), Rappaport (1968) and Buchbinder and Rappaport (1976) provide further details on allusive language among the Maring.

WALKING ON THE MOON AND MANAGING THE GARDEN


ENGAGING WITH THE WORLD

I am indebted to Karl Benediktsson's book (2002) for the theme of my text. On a broader canvas, Epeli Hau'ofa (1993) describes the ways in which Pacific Islanders adapt in their own ways and to their own benefit to the modernising of their world.

NOW

The quotation from Knauf appears on page 195 of his book, which was published in 1999. Martha Macintyre (1998) discusses the persistence of women's inequality in a volume edited by Laura Zimmer-Tamakoshi and entitled Modern Papua New Guinea, which provides a valuable look at the modern nation-state of Papua New Guinea from a variety of perspectives. The volume includes a chapter by Colin Filer (1998) from which I drew the quotation about limited cooperation being a characteristic of Melanesian society; and another chapter by Sinclair Dinnen (1998), who writes from a legal background on the issues of crime and violence in Papua New Guinea. Dinnen (2001) has written at greater length on these issues in his book Law and Order in a Weak State: Crime and Politics in Papua New Guinea, arguing against the profoundly pessimistic predictions of Papua New Guinea's imminent disintegration and collapse — predictions that have been made for many years now but which have not been realized despite the diminishing capacity of many state institutions. The quotation about raskolism comes from Michael Goddard (1992), who wrote further on similar issues in Goddard (1998). The emergence of an elite middle class in Papua New Guinea is detailed in Gewertz and Errington (1999), Emerging Class in Papua New Guinea:
The Telling of Difference, which was subject to a book review forum in 2001 in The Contemporary Pacific, vol. 13 (1).


'I' LL TELL THEM HOW GOOD IT TASTED'

Foale's article entitled "Where's our development?" Landowner aspiration and environmentalist agendas in Western Solomon Islands’ (2001) draws several other widely pertinent observations about fuzzy romantic misconceptions that foreign project personnel often have about Melanesian beliefs and the unity of Melanesian communities. The story about the turtle tasting good was told to Foale by Richard Hamilton as a personal communication.

Nguhni holds a ground cuscus (Phalanger gymnurus), one of the several kinds of marsupials found in the Ndwimba Basin. As the only ground-dwelling cuscus, it is particularly susceptible to being hunted with dogs. Both its fur and its flesh are used.

Wut displays a lizard ( Goncephalus sp.; ‘Anglehead dragon’) that he shot with a three-pronged arrow and cooked wrapped in a leaf in hot ashes. Rotted teeth like Wut’s were common in 1964 among the Bomagai-Angoiang.
REMEMBERING PAPUA NEW GUINEA

TRACES ON THE RHODIAN SHORE

For its deep discussion of the intertwining through history of the three major Western ideas about the relations of people and environment, Glacken's book (1967) is widely recognised in the English-speaking world as one of the major works to come out of the discipline of Geography in the twentieth century. Intellectually, within Geography, I see Glacken's work as related to two other major works having to do with the transformation of the Earth by human agency — even though Glacken's book is a coherent whole written by one profoundly thoughtful man and the other two are collections of edited chapters by various authors, all of whom, however, are authoritative in their field. One is Man's Role in Changing the Face of the Earth (W. L. Thomas, Jr. 1957), which contains a chapter by Glacken; the other is The Earth as Transformed by Human Action (B. L. Turner II, et al. 1990).

TEMPORARY MADNESS AS THEATRE

It is hard to avoid loaded terms when describing mental derangement. I use 'madness' and 'wild-man behaviour' because they have been used widely in the literature on New Guinea and because they have, unlike 'hysterical psychosis' for instance, no technical meaning in medicine or psychiatry. Other possibilities are 'trance state' or 'mild amok' although the latter may be an oxymoron. A fuller discussion of the events I describe here and references to other discussions of similar episodes can be found in Clarke (1972–1973). Another discussion of the phenomenon among the Maring can be found in Lowman-Vayda (1971).

Goddard (1991) describes and discusses what he calls a 'socially constructed madness' in the form of reported occurrences of individuals being discovered perched against their will in the uppermost, dangerously fragile branches of a tall tree.

THINGS AREN'T SIMPLE ANYMORE

The quotation from Howard and Rensel comes from page 63 of their 2001 article about Rotuman culture. Although a much higher percentage of Rotumans migrate and migrate further than do Papua New Guineans, the discussion by Howard and Rensel illuminates the malleability of culture as Papua New Guineans move from rural areas to towns, and new ways penetrate the rural areas. Their paper also provides a much fuller discussion of modern views of the concept of culture than was possible in my short text. They make particular use of a paper by Robert

**IT’S TIME FOR A PAPUA NEW GUINEAN POET TO SPEAK**

Kama Kerpi’s poem, along with other of his poems, was first published in *Call of the Midnight Bird* (Papua Pocket Poets, Port Moresby, 1973) and was republished in Beier (1980). Subramani (1992) provides a description and analysis of the development of literature in the South Pacific. A description of the foundation and early days of the University of Papua New Guinea can be found in Ryan (1972). I have elsewhere written of the value of poems by Pacific Islanders as commentary on contemporary issues in the Pacific (Clarke 2000).

**CHERISHING BEAUTY**

Further details on the significance of the *Coleus* sp. (*C. scutellarioides*) can be found in Rappaport (1968) and Buchbinder and Rappaport (1976). The quotations from Kocher Schmid (1991) are to be found on pages 277 and 280 of her comprehensive study of people-plant interactions in a Papua New Guinean community. Following on from his comment that Trobriand gardens are a work of art, Malinowski (1935, vol. 1, 80–81) writes that ‘appreciation of the aesthetic qualities of the gardens are a constant feature of village life’.

**AGRICULTURE HAS MORE THAN ONE STORY AND HOW TO GROW MORE FOOD ON THE SAME AMOUNT OF LAND**

Harold Brookfield’s *Exploring Agrobdiversity* (2001) explores and analyses the great diversity found within the agricultural practices of small farmers across the world. One of Brookfield’s earlier books, *Melanesia: A Geographical Interpretation of*
an Island World (Brookfield with Hart 1971), contains a valuable comparison of the agriculture of 44 places across ‘Old Melanesia’. Since then, the extensive research of the Land Management Project of the Department of Human Geography, Research School of Pacific and Asian Studies of the Australian National University has resulted in the publication of a series of working papers entitled Agricultural Systems of Papua New Guinea. These papers provide extensive detail on the agrobiodiversity present in Papua New Guinea, information that is briefly summarised in Hanson et al. (2001). In a different style, Axel Steensberg provides an elegant and discerning look at New Guinean agriculture in his book New Guinea Gardens: A Study of Husbandry with Parallels in Prehistoric Europe (1980).

The issue of agricultural intensification and transformation has generated a large amount of literature. With regard to Papua New Guinea, several recent papers on the topic are to be found in a special issue of Asia Pacific Viewpoint (2001, vol. 42, No. 2/3), including R. Michael Bourke’s paper cited in the text. I ventured into a discussion of the process of intensification in my first publication on Papua New Guinea (Clarke 1966). Netting’s (1993) volume is a rich source of examples and analysis of small-holder intensive agriculture.

KUNDA, OR MAGICAL SPELLS

Malinowski’s two-volume study of Trobriand gardens and magic is entitled Coral Gardens and Their Magic: A Study of the Methods of Tilling the Soil and of Agricultural Rites in the Trobriand Islands (1935). The cognate word for *kunda* in the Western Highlands is *kanje*, as listed in the Middle Wahgi Dictionary, which covers some of the languages in the Central Family of Papuan Languages (Ramsey 1975). Strathern and Stewart (2000) describe uses of magic in the same area in Arrow Talk: Transaction, Transition, and Contradiction in New Guinea Highlands History. Healey (1990, 90) reports that hunters among the Kundagai Maring know a number of charms that men use to attract game and make their aim true. They also may bespell bird of paradise display trees to make adult birds congregate in large numbers.

Sillitoe (2002) records incantations used by the Wola peoples of the Southern Highlands to make taro grow large. And, moving from Papua New Guinea to Makira in neighbouring Solomon Islands, John Saunana (poet and politician) has recorded and translated incantations from his home place in Dragon Tree (1971). One of them, used while planting taro, reads in translation:

Taro, taro,  
grow tall, tall like the post of a house!  
Taro, taro shoot,  
grow long, long like the beam of a house.
WHOSE BIODIVERSITY IS IT ANYWAY?

Some further details about Kumoints are in Clarke (1971, 51, 92–94). The ICAD project and its entanglement in local politics and misapprehensions are described and analysed in van Helden (2001a and 2001b).

BEING THERE

Geertz’s (1988, Chapter 1) main concern with ‘being there’ is more literary than ethnographic in that, he argues, the way that the anthropologist writes can convey, or not convey, that the anthropologist as author has truly been there.

EPILOGUE

It is all too easy to take a wholly dark view about Papua New Guinea’s future given the country’s social turbulence, the weakness of the state and its incapacity to provide adequate services on many fronts. On the other hand, the majority of Papua New Guineans grow their own food and provide their own shelter — as they did in pre-European times. They also sell food in local and urban markets and produce export crops for sale internationally. So far, the introduction of some new crops and crop varieties together with the ingenuity of local innovators have maintained or increased agricultural production without serious land degradation. Issues relating to the continued sustainability of agricultural production in Papua New Guinea are taken up by Sem and Allen (1996) and Wagh and Kaiulo (1996).

Continuing with a brighter view, I hear from several people with grassroots familiarity with Papua New Guinea that local people are coming up with many clever and innovative local small-scale developments without outside stimulus. Also, locally based non-government organisations are gaining ground, some of them at the national level — for example, Conservation Melanesia Inc., which was founded in 1993 and which carries out valuable work related to environmental conservation, details of which are available on its own web site: http://www.ngo.org.pg/conmel/

The lines of poetry are taken from A. D. Hope’s poem Parabola (A. D. Hope, Selected Poems, Angus and Robertson, Sydney).
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REMEMBERING
Papua New Guinea
An Eccentric Ethnography

The Maring people of Papua New Guinea had their first contact with a European in 1958, just six years before geographer and poet William C. Clarke arrived to spend a year living with them. By 1993, the photographs Clarke had taken during that time were suffering badly the effects of age and tropical fungus, so the images were resuscitated using computer technology and saved on to a CD-ROM.

Looking through the subjective lens of memory to greet the faces and places captured by the more certain lens of his camera decades before, Clarke found himself returning to a half-forgotten world. The photographs brought back not just visual memories but the smell of moist earth and banana leaves singeing on hot rocks in villages in the Simbai and Jimi Valleys.

Living in country that was considered remote even in traditional times, Clarke gained a detailed knowledge of Maring society and this remarkable collection of photographs captures a way of life that no longer exists. Clarke learned as much about himself as he did about his hosts and here he pays homage to the Maring and offers an insight into their world and their concerns, many of which still have resonance today.

Clarke reflects on the ‘moment’ captured in each photograph, using memory and imagination, his observations from the field and even poetry to create a narrative that is as rich and engaging as his exquisite images.