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## **How Saem became an ethnobiologist and writer: on the collaboration of Ian Saem Majnep and Ralph Bulmer**

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### **1. Introduction**

The collaboration between Ian Saem Majnep and Ralph Bulmer was one of the most distinguished in the history of anthropology.<sup>1</sup> This talk will trace the stages of Saem's transformation from child growing up at the end of the Stone Age in the remote Kaironk Valley, Papua New Guinea, to primary author of three ground-breaking books on Kalam ethnobiology. Two of the books were published during Saem's lifetime: *Birds of my Kalam country* and *Animals the ancestors hunted*. A first draft of the Kalam text of a third book, *Kalam plant lore*, was nearly completed at the time of his death in September 2007. I will examine how the books were created – and ask why it was that the main text of the first book was written in just over two months while the text of the second book took over ten years to complete. I will say something about how Saem's descriptions of animals and plants both resemble and differ from those of formally trained natural scientists. And I will comment on how Saem's ethnographic descriptions also serve as autobiography, weaving narratives of personal experience and memories of place into the detailing of Kalam knowledge and use of their natural environment.

Other Papua New Guineans have written about natural history, especially in the last two decades, sometimes alone, sometimes together with expatriate researchers. However, the writings of Saem are unique in their scope and depth. No others have described in such detail their own and their people's knowledge of the animals and plants of their home area.

Although Saem's achievements reflect an exceptional talent and determination, one of the points I wish to make here is that he was able to do what he did because he was part of a team, in which Bulmer and he were the principals but others played important supporting roles, not least his mother, an expert hunter, but also those who provided intellectual stimulus, encouragement, financial aid, hospitality, additional local knowledge, scientific determinations of specimens, computer skills, etc. In particular, to understand the career of Saem Majnep we must look back at Ralph Bulmer's research project in the Upper Kaironk Valley. It was the social and intellectual milieu this project created which provided the platform for Saem's transformation from expert in Kalam bushcraft to internationally acclaimed ethnobiologist and author.

Another point I wish to emphasize is that the production of a book of the kind and quality of those written by Majnep and Bulmer is a dauntingly complex process.

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<sup>1</sup> I am grateful to Robin Hide for helpful comments on a draft of this paper. I'm also indebted to George Marcus for insightful remarks on the collaboration in Marcus (1982, 1991).

A prerequisite is a profound knowledge of the subject matter by the author(s). The actual creation of the book proceeds over many steps, from planning, e.g. deciding who the audience should be, how the subject matter should be arranged and whether or not the text should be bilingual, to consulting a range of local experts, writing the primary text, editing this, translating it, editing the translation, adding secondary text in the form of introductory notes, footnotes and other commentary, entering handwritten text onto computer, designing the format, creating and inserting line drawings and photographs, making multiple indices, proofreading the text several times, finding a publisher and seeing the work through the press. At least 20 people played a significant part in the production of their books.

Let me turn now to the main story. It is fortunate that we have good sources not only about the later stages of the Majnep-Bulmer collaboration but also about the early stages, when Saem was a teenage field assistant. Especially important in this regard are Saem's delightful memoir about Bulmer's time among the Kalam, entitled 'What is this man up to? A Kalam view of Ralph Bulmer' (Majnep 1991), and Bulmer's remarks in the prefaces to the first two books.

## **2. Bulmer comes to the Kaironk Valley**

In January 1960 two strangers arrived at the newly-established Patrol Post in Simbai, situated at the junction of the Bismarck and Schrader Ranges in the southwestern corner of Madang Province, PNG. Simbai lies nearly 1800 metres above sea level, at the centre of the territory occupied by the people we now call the Kalam, who at that time numbered about 13,000. The first government patrols to the Simbai area had only occurred in the 1950s and, in response to outbreaks of local warfare, a government station had been set up in 1958. The way of life of the Kalam was as yet little influenced by the changes that the colonial era had brought to many other parts of PNG.

The two strangers came from the University of Auckland, New Zealand, and their intended destination was not Simbai but the nearby Kaironk Valley. One of the visitors was Ralph Bulmer, a social anthropologist who had already done extended research among the Kyaka Enga people of the Baiyer River, describing Kyaka social and political structure. But his greatest passion was not for the conventional subject matter of ethnography -- through he was a superb ethnographer -- but for natural history, the study of animals and plants, and ethnobiology, the study of how particular communities perceive and use the natural environment. After reading a report of an early government patrol through the Upper Kaironk, which described the place and the people, Bulmer decided this would be an ideal place for him to undertake a long-term study of a New Guinea people's ethnobiological knowledge. The other stranger was Bruce Biggs, a linguist whom Bulmer had invited to join his team in order to analyse and describe the Kalam language.

The Kaironk is a V-shaped valley, steep-sided, with primary forest covering the tops of the mountain ranges, which reach as high as 2700 metres, the lower slopes being open country largely covered by kunai grass. The Kalam-speaking people who occupied the upper end of the valley, were farmers who lived in scattered homesteads, planted sweet potato, taro, yams and bananas and kept pigs. They also did a lot of hunting and gathering in the forests and grasslands.

Bulmer and Biggs made contact with people of the Kaironk and Gobnem kin-groups in the Upper Kaironk, were invited to stay, and set about their work. As no Kalam men from these groups spoke Pidgin at that time they relied on an interpreter from outside the Kaironk Valley. The Kalam, a people of small stature, were astonished at Bulmer's size – he was 6 feet six inches tall and weighed 250 pounds – and at first they had no idea why he and Biggs had come to live among them. Once word got about that the Europeans were friendly, and were giving useful things to the people who were helping them, many Kalam people came to their camp to see for themselves what these strangers were like. Among the visitors was a quiet boy of about 11, called Majnep, a name which means 'just sweet potatoes', because that was all his family had to eat at the time he was born. He also had the name Saem, and many years later, after being baptised at the age of 26, he took the name Ian.

When Saem was about four years old he lost his father to injuries from a tree climbing accident. He was brought up by his mother with, it seems, only minimal assistance from his father's brothers. She and her two youngest children – Saem and his foster sister – lived in various sites on the edge of the mountain forest above Gobnem and in the Gulkm Valley. Bulmer described Saem's mother, whose name was Kalam, as a woman of great character and resourcefulness. She was an expert hunter of the kinds of animals that women hunt – ground-dwelling animals like bandicoots, various kinds of bush rats and frogs. Their survival depended on her expertise. Their life was harder than other Kalam families but it meant that an early age Saem became familiar with the plants and animals of the forest and was on his way to becoming a skilled hunter.

Over the next 25 years Bulmer was to make 14 more trips to the Kaironk, totalling nearly three years of fieldwork. Besides working closely with Kalam informants, he was often joined in the field for short periods by specialists in one or another field of biology, whom he had recruited to collect and identify plants, mammals, frogs, snakes and lizards (the Kalam distinguish by name more than 900 kinds of plants, around 200 kinds of birds, more than 50 kinds of wild mammals and 35 kinds of frogs). There were also visits from other sorts of specialists, such as geologists, who identified the 25 or so kinds of rocks named by the Kalam, and archaeologists, who found an ancient living site in the valley.

I accompanied Bulmer on his second trip, in 1963-64, have taken Bruce Biggs' place as the project linguist after Biggs found he had too many other commitments to devote the necessary time to Kalam. Soon after arriving there in August 1963 Bulmer had a house built close to the forest edge at Gobnem, next door to the homestead of his great friend, Wpc, the big-man of Gobnem. A team of men and youths from the Gobnem kin-group served as his main research assistants. Almost every day he went walkabout in the bush, collecting specimens and asking endless questions of his companions. Although at that time Saem was a schoolboy of 15 -- he attended primary school for just two years -- he became a part-time member of the support team. Bulmer was impressed by his intelligence and knowledge of the bush and by the time of his third field trip in 1966 Saem had become one of his main field assistants. Neither of them had any idea that they were embarking on a long-term intellectual partnership.

Many years later, in his 1991 memoir, Saem reflected on how the Kalam reacted to the presence of this giant stranger.<sup>2</sup>

He stayed among us and studied our ways. How people paid bridewealth, how people exchanged shell valuables when obtaining a wife. how they butchered pigs, hunted and shared out the meat. What are the good seasons for hunting? When can a man go and kill a lot of kapuls or birds? What are the dry and rainy months? How people made war, all their customs and practices. When he asked people about their lives and customs they told him “This is how we do this, this is how we do that.” They related legends of how things were in the beginning, which he recorded on tape. (Majnep 1991:30)

He said “I’d like people to bring me specimens of all kinds of birds and animals.” We listened carefully to his requests and tried to bring him whatever kinds he asked for. To people who were helpful he gave gifts, such as cloth, axes, bushknives, and when he gave such gifts people talked about it. ...

When he went walking about with some companions he’d be out all day. He’d go to some quite distant places. Some days he’d go up Walblep Ridge to the forest at the top, other times he’d walk up Guñpogep Ridge. Some days he’d say, “Alright. Today I’ll go via Knem to Gulkm Saddle and on up to Colm Mountain. ...Sometimes he’d say “Today I’d like to look at the kangaroo grasslands down at Tumbumkamp (Ben’s Bluff). He’d go and walk there, observing things. One time he said, “Let’s go down to the Jimi Valley plains,” and he and his party went down and camped there for several days.

On these walks he used to rest at various places, giving smokes to his companions while he sat down, jotting down notes. While we were moving about in the bush some of the men would climb trees looking for [animals], or they’d go and shoot birds. Ralph would watch how these things are done and think, “Yes! This is how they hunt. These are their methods.”

His closest friend among us, his real brother, was Wpc (roughly Woovich, in English popular spelling). He was our *b-kub*, our big-man. He looked after us and he looked after Ralph. Wpc accompanied Ralph on all his excursions... [He] gave Ralph some land for a house, and he also used to bring him fruit and vegetables... Or he’d prepare other foods... In return Ralph would give him gifts...

When we saw what a good man Ralph was, we decided to be generous in sharing our feast foods with him...

While he was studying us, we were studying him. “What is this man up to?” we wondered. The real reasons behind his actions weren’t obvious. “When he walks around, why does he always write things on paper? What is he going to with all these animals he’s collected?” Now,

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<sup>2</sup> I have corrected or updated spellings of certain Kalam words in this and other quotes from published sources.

they can see the point of it all and they say “Ah, so this is what he has done with things he took and the information he recorded.” (31)

Saem (1991:32) goes on to recall how he came to be one of Bulmer’s field assistants.

I started helping Ralph in 1963. He’d asked people to bring birds and animals, so I decided to collect the ones he’d asked for. ...One day I shot a *bleb* (ground dove, *Gallicumba becarrri*) and brought it to him. Another day I brought him a *kñopl* (East Indian woodcock, *Scolopax saturata*) that I’d shot over at Gulkm.

...When he asked [people] questions [about animals and plants] they often had difficulty giving him the information he wanted. Whereas when he asked me I could give him ready answers, and I think when he noticed this he started to work regularly with me....

During the early days of our collaboration, when I saw how serious and intense Ralph was, I was a bit afraid of him. But as time went on, I saw we were achieving good results and I was learning a lot. You learn a great deal from working with a man like that, someone who thinks very deeply and seriously about everything and who is a perfectionist. You won’t learn as much from an easy-going man, someone who likes to joke and laugh with his companions but doesn’t think too deeply or take too much care to get things done right. (32)

In 1968 Bulmer took up a post at the newly established University of Papua New Guinea as the foundation Professor of Anthropology and Sociology. He arranged for Saem to join the Department as a laboratory and field assistant. This work took Saem on field trips to various parts of PNG, to do archaeological work in Chimbu and the Eastern Highlands Provinces and in the Kaironk Valley, as well as in Central Province. From the zoologist Jim Menzies, of the Biology Department at UPNG, he learnt how to prepare birds, mammals, and other animal specimens. He stayed at UPNG until 1977, when he returned to the Kaironk Valley, got married and began to raise a family.

### **3. Producing *Birds of my Kalam Country***

In or about 1974 the Bulmer-Majnep collaboration took a new and momentous turn. Bulmer had published a series of well-received papers about Kalam ethnobiology and cosmology<sup>3</sup> and he now reflected on what to do next. Up till then he had followed standard practice in writing ethnographic texts, drawing on his own observations and analysis, and on dialogue between anthropologist and informants. The remarks of, or texts produced by informants, are incorporated into the ethnography as supporting evidence but the ethnographic description is constructed by the anthropologist. It was s/he who determines its shape and purpose.

Bulmer decided that it was time to give a greater voice to his Kalam assistants, not only citing them as co-authors of publications about Kalam culture to which they

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<sup>3</sup> Among Bulmer’s early papers in this domain were Bulmer 1967, 1968, 1970, 1974, Bulmer and Menzies 1972-73, Bulmer, Menzies and Parker 1975, Bulmer and Tyler 1968.

had contributed key information but also giving them a major role in the design and construction of the ethnographic texts – in effect, making them ethnographers.

Turning Kalam consultants into ethnographers was not a simple matter. The western tradition of ethnographic writing was known to them only insofar as it was reflected in Bulmer's questions and dialogue with them. They were not readers and writers. Theirs was an oral culture. Only a small minority of Kalam had some degree of literacy – chiefly in Pidgin and, to a much lesser extent, English. Saem was one of very few who had learned to write in Kalam, following the orthography used by Bulmer in transcribing Kalam narratives.

One early jointly authored project -- a little book of Kalam folk tales about birds, with Simon Peter Gi and Saem Majnep (Gi, Majnep and Bulmer 1975) -- was of a more traditional collaborative genre. The book consisted of six folk tales told by two Kalam men, Saem and Simon Peter Gi, appearing in English translation with ethnographic commentary by Bulmer.

The breakthrough came with the *Birds* book. Bird-watching was a lifelong hobby of Bulmer's and for years he had been preparing the ground for a book about birds and the Kalam, aimed at a readership that spanned professional and amateur ornithologists, social anthropologists and others interested in New Guinea people's knowledge of wildlife. Between 1966 and 1973 he drafted 25,000 words about the birds of the Upper Kaironk Valley. But now he decided to invite Saem to co-author the book and to make Saem's descriptions the main narrative while reducing his own role to that of commentator and translator. Bulmer asked Saem to come to Auckland at the end of the 1974 teaching year (by then he had left the UPNG and returned to the University of Auckland) to work on the volume that became *Birds of my Kalam country*. Bulmer interviewed Saem in a mixture of Pidgin, Kalam and English and Saem made lengthy statements about most of the 180 or so bird species found in the Upper Kaironk plus another 40 or 50 found at lower altitudes.

Saem's statements (as translated into English by Bulmer) form the core of the book. They deal not only with the appearance, habits and habitat of each bird and class of birds but also with their significance to, and relations with people. But Saem's role went beyond that of just providing descriptions. He also played a large part in determining the shape of the book -- by deciding which birds would be grouped together in the same chapter and, in consultation with Bulmer, deciding how the chapters would be ordered. Saem had become an equal partner. However, he was not yet a writer in the strict sense. His text was a joint creation, emerging in the course of interviews in which Bulmer asked the questions and Saem gave answers.

The first draft of *Birds of my Kalam country* was completed in an extraordinarily short time, just over two months. To the main text Bulmer added quite extensive introductory material, commentary on each chapter, photographs and several detailed indices. Chris Healey, an Australian anthropologist who did fieldwork among the Maring, neighbours of the Kalam, and who is a talented artist, was asked to draw black and white drawings of some of the birds. Saem comments that

The main reason this book was easy to write was because Ralph already knew a great deal about birds. He'd learned a lot about ornithology when he was in England, beginning with childhood walks

with his father...In New Guinea he was always studying birds, it was the subject he asked most questions about when we were in the bush and because he knew so much he could easily digest and assess the information we gave him. If a person is unfamiliar with a subject he'll believe anything his informants tell him. But someone who knows a lot about a subject will be critical; he'll have a good idea which information is accurate and which isn't. In these things Ralph acted just as we would. (Majnep 1991: 34-35)

The *Birds* book, of about 200 pages, was published by Oxford and Auckland University presses in 1977. It was received with high praise by reviewers – there were at least 18 published reviews – and was later cited as one of the two most important books in the literature of ethnobiology. [< REF?>] Reviewers were fascinated by the ways the insider's or native accounts given by Saem both resembled and differed from those of professional ornithologists. This is not the place to dwell on the details of Saem's descriptions of birds and their place in Kalam life but I cannot resist quoting a short passage from one of the reviews which gives the favour of his descriptions. Hunn (1978) writes that “[The book] is not only an account *of* the native viewpoint but also *by* a sophisticated native participant. Saem is truly a folk scientist, comparable as an observer to a Darwin or a Wallace... Consider his account of [Princess Stephanie's Bird of Paradise]:”

Although we call *ksks* and *bdorj*... [(adult male and unmarked, respectively) Princess Stephanie's Bird of Paradise...] by different names, you can say that *ksks* are a kind of *bdorj*, because some *bdorj* grow into *ksks*, and these are the males. We know this is so, for we see the birds with their plumage changing. First the head changes; then the striped brown breast of the *bdorj* is replaced by the dark green and blue breast of the *ksks*; and lastly the long black tail grows. In the first year that it changes it does not grow a full tail – only *s/p* ['shoots']: in the second year its tail is complete.

...*ksks* stay hidden in the mountain forest, but *bdorj* quite often come into old gardens at the forest edge. They eat many kinds of fruit in trees and shrubs and vines and in low vegetation, and we believe they propagate *klmurj* [*Trema orientalis*], *slwal* [a tree rather similar to *Trema*], and *sanep* [*Alocasia*, the wild taro]... They choose different sorts of display trees from those of the Sicklebills, one with a long straight bare branch with no foliage or epiphytes on it for a considerable distance, and coming out at angle, not horizontal, from the trunk. First the *bdorj* come, and call out, then the *ksks*. If five or six *ksks* come, then two or three station themselves at each end of the display-branch and dance there, then they change places, those from one end going to the other, so on.” (*Birds*, 60)

Hunn judges that:

This account might have been quoted from Ben's *Life Histories of North American Birds* or any comparable treatise of avian natural history. ...Note the care in establishing the basis on which knowledge is based: "We know that this is so, for we see...", "we believe that they propagate..." As Saem notes by way of introduction, [*Birds* 44] "To tell what your yourself have seen and know to be true is easy; to fit together all the things that other men tell you, and decide which of the things they say are true, is much more difficult".

Yet, Hunn notes, Saem says some things a western biologist would not say. He tells of his belief in the power of magical rituals to help hunters to shoot straight when hunting these birds of paradise. He believes in the ritual, he says, because he has seen it work. "Here Saem is a scientist operating without an axiom of strict mechanical causation espoused by western scientists but a scientist nonetheless."

In the *Birds* book Saem details many other beliefs which he and/or other Kalam, hold about magic, taboo and ritual in relation to birds. In doing so he was simply being a good ethnobiologist as well as being true to his Kalam culture. Let Bulmer himself explain how the concerns of ethnobiologists differ from those of biologists:

There are two levels of ethnobiological enquiry. One is the determination of the biological species, cultigens and cultivars which are of significance in human ecology, and the study of the ways these relate to men on the objective biological dimension. The other level is the study of human conceptualisation and classification of plants and animals, and knowledge and belief concerning biological processes. (Bulmer 1974:9)

The most important innovation of the *Birds* book was that the responsibility of dealing with both levels of Kalam ethnobiological enquiry was given to Saem, the insider. To what extent he regarded the two levels, the objective and the conceptual, as separate is another matter, one that need not detain us here.

#### **4. *Animals the Ancestors Hunted*: Saem becomes a writer**

Saem and Bulmer's second book was to prove a much stiffer challenge. It was in this that Saem truly became a writer. Let him continue the story.

Ralph was pleased with the way the book went and when we'd finished he said to me, "Lets do another one." He asked me to choose the subject and I said it should be about *kmn* – about the kapuls or game mammals of our region and how we hunt them. [*Kmn* consist of the larger wild mammals, including tree kangaroos, wallabies, cuscuses, giant rats and water rats, sugar gliders and bandicoots. Small wild mammals, such as various kinds of small bush rats, are not classed as *kmn* but as *as*.] He was taken aback by this suggestion. "I've already written a lot on this subject. Jim Menzies and I have done a long paper about marsupials and rodents and I've written a few things about Kalam hunting. What else can we do?" But I had very strong

convictions on this point. “There is really a lot to be said about *kmn*. You know, compared to game mammals, birds are only small things, not nearly as important to us either for food or for ceremonies.” (Majnep 1991:35)

Then it was Saem’s turn to be surprised. Bulmer said “This time I want you to write the book by yourself, in Kalam.” Kalam is quite a difficult language to write and few Kalam are literate in it, but Saem had gained a working proficiency. With some misgivings, in 1976 he set to work on the book that was to become *Animals the ancestors hunted: an account of the wild mammals of the Kalam area, Papua New Guinea*.

His method was first to gather his thoughts about a particular animal or group of animals, often after interviewing other knowledgeable Kalam hunters, then to tape-record remarks about each animal in Kalam, then to transcribe these remarks on foolscap pages, then to attempt a Pidgin translation, before giving the written material to Bulmer (sometimes it was a matter of mailing it from PNG to Auckland, though they also worked together during Bulmer’s field trips to the Kaironk and in Auckland in the summers of 1977-78 and 1982-83, when Saem paid visits to Auckland.) Bulmer also asked Saem to record and transcribe myths about animals. These were just the first stages. Bulmer would then retranscribe Saem’s Kalam text, regularising the spelling, adding punctuation, breaking it down into paragraphs and sentences, and leaving plenty of space under each line so that he could add word for word glosses plus a free translation. They would then work together, with Saem helping Bulmer to arrive at a first free translation which he would later rework into a polished form. This included noting places in the text where unstated knowledge, taken for granted by Saem, needed to be made explicit if the text was to make sense to an outsider, and discreetly working explanatory additions into the translation. Finally, Bulmer would add introductory commentary and footnotes.

By 1980 Saem had drafted almost all of the 22 main chapters, along with several important myths related by other men. But the next big step in the project – retranscribing and punctuating Saem’s text and completing an English translation – took several more years. The slow rate of progress was partly because Bulmer had so many other responsibilities. But this was not the only reason. Saem recalls some of the things that made the *Animals* book hard work.

The *Animals* book was much more difficult to write than the *Birds* book. There were many reasons for this. It was partly because Ralph did not know so much about kapuls as he knew about birds and about studying the lives of humans. It’s easy to learn the observable aspects of people’s lives, how they work, how they sleep, what foods they eat, and the like. You can even ask people questions about their inner lives and their secret knowledge. But in the case of wild animals, only people who know them well, who have a lot of experience hunting them, can tell what they eat, where they sleep, and how they think....

Transcribing the tapes, putting the words down on paper, was hard going. I had never done this kind of job before, writing my own language. Translating the text into English, which was Ralph’s job, was

often excruciatingly difficult. Part of the difficulty was that many Kalam words I used were not yet in the dictionary [drafted by Pawley and Bulmer], and there are no Pidgin words to translate some of them, and indeed there are no English words to translate some of them. So that when Ralph asked me what these words mean, I had to stop and think, and sometimes I got really worried and began to sweat with embarrassment and ask myself what could have possessed me to take this work on! Ralph sometimes had to wait as long as five or six minutes... But eventually I would come up with something. (Majnep 1991:35)

Translation was a slow, often agonising task. The catch was that, while accuracy of translation was central to the enterprise, complete accuracy was unattainable. This is because Kalam concepts and ways of talking about events and situations have no one-to-one match with those of English. Far from it. When rendering Kalam text into English it is not a straightforward matter to arrive at a translation that both accurately represents the meaning of the original and at the same time makes sense to English speakers, and even harder to achieve the further level of being stylistically pleasing. Compromises have to be made, with accuracy of meaning usually the victim. This is the case with translation between any two languages but the differences between Kalam and English are much greater than between, say, English and French. We have already touched on the problem of translating the term *kmn*, roughly ‘wild mammals that are prized game’. For this Kalam concept Bulmer coined a new English term: ‘game mammal’.

Let me give a couple of other examples, which concern the original Kalam language title and subtitle of the *Animals* book. The main title, with approximate word for word glosses is:

*aps- basd skop kmn ak pak ñbelgpal*  
 grandmother grandfather group game:mammal the kill they:used:to:eat

This word for word glossing doesn’t make a lot of sense in English but if we know certain facts about Kalam grammar, namely that (a) the conventional word order in Kalam clauses is Subject + Object + Verb, (b) the chief constituents of the clause are *aps-basd skop* ‘ancestors’, *kmn ak* ‘the game mammals’ and *pak ñbelgpal* ‘they used to kill and eat’ and (c) the use of *ak* between a noun phrase X and a verb V often marks X as being the head of a relative cause, we can arrive at a free translation something like:

(1) *The game mammals that the ancestors used to kill and eat*

(1) has the virtue of being a fairly accurate rendering of the original but it makes for a clumsy book title. A book title should be catchy. Bulmer’s preferred translation was:

(2) *Animals the ancestors hunted*

This has the advantage of being shorter and more memorable than (1) and also uses concepts that English speakers reading the book title will readily understand. ‘Game mammals’ is not a concept familiar to English speakers. The more familiar ‘wild animals’ is not accurate, as it includes such creatures as lizards, snakes, frogs,

crocodiles as well as small rats, which are not *kmn*. In the end Bulmer settled just for ‘animals’. Because the last word is ‘hunted’ he felt there was no need to modify ‘animals’ with ‘game’ or ‘wild’, because only wild animals are hunted. Finally, in English it is more natural to speak of ‘hunting’ animals as a traditional activity, rather than of ‘killing and eating’ animals. In Kalam, the opposite is true.

Translating the subtitle of the book was also a challenge.

*ct kmn- as maglsek mdeb nb ok dl,*  
 we-2 game: small: all they:live thus the having:got  
 mammal wild:mammals

*buk lng gobt mñab Kalam Papua New Guinea*  
 book will-put we2-do country Kalam Papua New Guinea

In the first part of the title the subject-verb sequence is *ct...dl* ‘we-2 ...having got’. The thing got is what comes in between the subject and the verb: *kmn-as maglsek mdeb nb ok* ‘(information) concerning the way all game mammals and small wild mammals live’. The second part of the title consists of the clause *buk lng gobt* ‘we will put in a book’, the thing put being all the information mentioned in the previous clause, plus the modifying final phrase meaning ‘(in) the Kalam area, Papua New Guinea’. So a fairly faithful translation would perhaps be:

*We two will put in a book the information we have obtained about the way game mammals and small wild mammals live in the Kalam area, Papua New Guinea*

This is clear but clumsy. Bulmer’s preferred translation was

*An account of the wild animals of the Kalam area, Papua New Guinea*

which plays fast and loose with the Kalam text but has the advantage of fitting one of the accepted moulds of English subtitles: one or more noun phrases linked by prepositions.

In translating the main text Bulmer did not take such liberties. In the end he arrived at translations that I regard as masterly. Partly for their clear, colloquial prose, which a reader who knows no Kalam can appreciate, but which in its long, descriptive sentences retains much of the discourse style of the original Kalam text. But even more for the way in which the translations bridge the considerable gap between Kalam and English word meanings and discourse structure.

## 5. The *Animals* book as autobiography

The anthropologist George Marcus wrote a paper in which he reflected on the Majnep-Bulmer collaboration (Marcus 1991).<sup>4</sup> Among the things he noticed was that in both books, but especially the *Animals* one, Saem’s texts are more than just a body of statements about Kalam ethnobiology. The texts also double as autobiography. There are many passages in which Saem inserts narratives of personal experience and memories of place into his accounts. This is most clearly evident in the Epilogue to

<sup>4</sup> See also his earlier review of *Birds of my Kalam country* (Marcus 1982).

the *Birds* book and in the dedication and the Introduction to the *Animals* book. The *Animals* book contains this moving dedication to his mother as nurturer:

For my mother Kalam, who with such fortitude  
carried me when I slept under the trees and in the rock-shelters  
and under the leaking roofs of desolate houses,  
so that I survived and grew.  
I have not forgotten her.

Saem's lengthy Introduction ends with the following passage about his early childhood, one of many that recall his experiences in particular places and how these events and places are burnt into his memory.

In the difficult period I'm talking about I lived in two different places. The second was up at Gulkm, by the ridge where the government Rest House later stood. As at Walblep, my mother found an old pig-shelter there, but it was sound and dry for our family to sleep in. She collected dry trash from garden-clearing and blocked the holes in the outer walls with this, and we slept comfortably inside. But when heavy rain fell we still had to keep getting up, because if the rain really poured down, it would come through the roof into the interior where we slept. But when the weather was fine we were comfortable ... .. I still remember, right deep down inside me, the things my mother did when there were storms. I haven't told anybody about this before, not even my brothers or my cross-cousins. It's only now, in writing this book, that I've decided to come out with it... I've told how I lived as a child with my mother, and she cared for me; and how she would take me out with her and tell me which were the tree lairs my father used to make his kills in.... When we were living at Walblep we'd go back and forth across to Gulkm, and when there was heavy rain so that all the forest was sodden, it was really hard travelling through the bush. We'd carry burning embers with us, and make a fire under the base of a tree to warm ourselves a little, before going on until eventually we reached Gulkm.... I'd weep and plead for my mother to carry me on her back; and she would do so, though I was a great burden to carry in the rain. And when we out hunting and sleeping in some shelter in the forest, and I was cold, she'd cover me up with her long widow's skirt and her side skirts, so that I could sleep comfortably.

Marcus (1991:43) comments that

Not only has taking the pen in the *Animals* project motivated Saem to become more explicitly autobiographical in his collaboration with Ralph, but...he is motivated to communicate, to *reveal*, aspects of his personal history to his people... Within his novel role of writer/scribe, Saem seems to have developed what would be for the Kalam an unaccustomed or idiosyncratic use of the oral narrative frameworks available to him for telling personal stories.

## **6. Crisis and solution: The *Kalam hunting traditions* working papers**

By 1986 almost ten years had passed since Saem began the *Animals* book. More than 700 pages of bilingual text had been generated. Chris Healey had provided a magnificent set of line drawings for the more important *kmn*. However Bulmer was still agonising over translation and editorial issues. Saem had expressed the wish that the book should appear in a Kalam version. Bulmer, on the other hand, wanted to produce an English edition first, to be followed an edited Kalam text that was consistent with the English. He felt that producing a satisfactory English-only text would require extensive editing of the existing English translation, which remained close to the unedited Kalam text – but he dithered over how best to do the editing.

This was a moment of crisis. But a solution was at hand. Bulmer realised that his ordering of priorities was impractical. The sensible way to proceed was first to go with the existing bilingual draft, publishing an unedited or minimally edited Kalam text, with its English translation, then to worry about producing an edited English version later. In 1986 Bulmer began to prepare a bilingual edition for publication by the Department of Anthropology as a series of volumes or ‘working papers’, under the series title *Kalam hunting traditions (KHT)*. The 22 main chapters of the book plus myths were to be grouped into 12 separate volumes. The ordering and grouping of chapters followed Saem’s preference.

The drafting of the *KHT* working papers was well advanced when fate struck the cruellest of blows. In January 1988 Bulmer was diagnosed with lung cancer. He continued to work as far as his failing health would allow but died in July. At his request I undertook to complete the editing of the bilingual working papers and, in due course, to produce an English-only version as a book. Volumes I-VI, containing chapters 1 to 12, appeared in 1991. Volumes VII-XII were edited but not published.

In 1989 the University of Papua New Guinea awarded Saem an honorary doctorate in science in recognition of his contributions to ethnobiological research.

In 1997 Robin Hide, a former colleague of Bulmer’s at Auckland, and I began the task of reworking the *KHT* materials into an English-language book of the sort that Bulmer had envisaged and adding additional commentary, indices etc. It took several years of intermittent work to complete the task. *Animals the ancestors hunted* went to the publisher in 2003 but was not published until January 2007. Like its predecessor, it received glowing reviews.

## **7. Kalam plant lore**

Mention was made earlier of a third and still unfinished book by Saem. I will comment only briefly on this. It had long been agreed by Saem and Bulmer that, after *Animals*, their next big project should be a book about uncultivated plants, provisionally entitled *Kalam plant lore: an account of the trees and other plants of the Upper Kaironk Valley, Papua New Guinea*. In addition to about 300 terms for cultivated species and their varieties, the Kalam distinguish more than 650 kinds of wild plants, including about 350 tree taxa (if we include palms and pandans, which English speakers classify as trees but which the Kalam exclude from the main tree category, *mon* or *mab*) and about 100 taxa of vines and robust creepers. A considerable proportion of the 650 or so taxa are utilised by the Kalam. Much information about Kalam knowledge and use of wild plants had been incorporated

into the first two books and into the draft dictionary but there was more to be said on this subject.

As with the *Animals* book, the plan was that Saem would first write the main text in Kalam, with English translation and other additions to follow. In 1983 they published a lengthy bilingual working paper on Kalam use of forest plants (Majnep and Bulmer 1983). After Bulmer's death, Saem continued work on the plants project in collaboration with others, chiefly Rhys Gardner, a botanist from Auckland who made several field trips to the Kaironk Valley between 1993 and 2000, and me.<sup>5</sup>

Saem had completed perhaps 90 percent of a first draft of the Kalam text for *Kalam plant lore* when he died suddenly in September 2007. The tasks of translating and editing this material to arrive at a volume comparable to the *Animals* book will entail some years of work. I have made only a little progress so far, having been occupied with other projects, not least preparing for publication the Kalam dictionary (Pawley and Bulmer, with Kias, Gi and Majnep 2011).

## **7. Conclusion: research and schools as instruments for maintaining traditional knowledge**

Saem was well aware that much of the traditional knowledge that he recorded is in danger of disappearing. In a number of publications, such as Majnep (1982), he asks whether traditional environmental knowledge still has value for Papua New Guineans in modern times, argues that it does, and wonders how this knowledge can be passed on to the next generation.

[N]ew social and economic forces are already changing our way of life and eroding traditional knowledge of wildlife, and it seems that the next generation of children won't know much about how their grandparents lived. (Majnep with Pawley 2001:343)

In the Upper Kaironk Valley most people no longer go hunting and collecting food in the forest as often as people did a generation ago. Families generally prefer to live close to the main road... Children nowadays must spend several years in primary school. Those who do well may go on to secondary school in distant places... Quite a lot of young men go to work in the towns... Some people buy radios and play cards instead of going hunting. This story is being repeated all over Papua New Guinea.

Still, I would like to think that traditional knowledge will remain important... For those of us who live at home in the mountains, the land and the forest will always be the main source of wealth.... Even though hunting kapuls is no longer such an important source of food as it once was, some young people continue to hunt and trade for other reasons: to obtain feathers, pelts, for rituals, and the like. People like to live in a

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<sup>5</sup> Gardner 2010 gives an account of Kalam names and scientific determinations for plant specimens collected in the Upper Kaironk, chiefly by Ralph Bulmer between 1963 and 1985, and Rhys Gardner between 1993 and 2000, together with ethnobotanical and ecological information. About 500 Kalam taxa are represented in this account. A near exhaustive list of Kalam plant names appears in the Kalam dictionary.

household where such men live, who can both bring in game and teach others how to get it. And hunting will remain an enjoyable activity for people bored with making gardens. (Majnep with Pawley 2001:354-355)

Is it inevitable that the longer children stay at school the less they learn about their home community's traditional knowledge of bushcraft? Saem reflects on this matter and refers to a thought-provoking paper by Bulmer (1971) about "Science, ethnoscience and education" in Papua New Guinea, written when Bulmer was at UPNG. In that paper Bulmer anticipated some of the concerns of this symposium.

...Years ago Ralph Bulmer...wrote that the best way to teach children is to make them into researchers. Nowadays nearly all our children attend school where they sit at desks and study English, arithmetic and science. But learning by doing is more fun than sitting listening to a teacher or copying from a book. And in the case of biology and nature study, where better for children to start than with their own home surroundings, looking at things they know quite a lot about? (Majnep with Pawley 2001:355)

Let Bulmer (1971:31-32) speak for himself:

Finally, and quite impertinently (as I know almost nothing of the primary and secondary schools science syllabuses in this country), I would like to make a suggestion for a way in which local knowledge and classification could be related to science teaching in schools. It is that every local primary and secondary school should compile its own natural history books and own local atlas. Initially a loose-leaf sheet should be made out for each animal and plant species recognized. The Department of Education might provide pictures of as many as possible of the common animals and plants in this country which could be stuck onto the sheets. In the meantime, postage stamps and advertising material from our enterprising Departments and Posts and Telegraphs will help. Vernacular names should be recorded, plus any information children can provide regarding local distribution, behaviour, uses, references in myths and folk-tales, etc. Parent and other members of the community should be invited to collaborate.

As the book is assembled, the principles both of traditional indigenous and of biological taxonomies can be explained, with the sheets arranged and rearranged accordingly.

Comparative material, illustrating plant and animal communities found in contrasting ecological situations in other parts of New Guinea and the rest of the world, can be progressively introduced once the local project is under way, and attention can be drawn to the occurrence of the same, closely related and quite different species in these other areas. Thus a general understanding of ecology, evolution and modern biological taxonomy can gradually be established. But first, I would argue, one should start by assessing the children's knowledge of their own environment and getting them also to consciously assess and extend this....

It may sound utopian, but I for one would like to see every school in this country transformed into a junior research institute. Research – learning for oneself, and taking the initiative to find out what one wants to know – is so much more rewarding an activity than merely being taught.

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