BORNEO RESEARCH BULLETIN



т

E

Vol. 7, No. 2 September	1975
Notes From the Editor: Appreciation to Donald E. Brown; Contributions for the support of the BRC; Suggestions for future issues; List of Fellows	· 44
Research Notes	
Distribution of Penan and Punan in the Belaga District Jayl Langub Notes on the Kelabit Mady Villard The Distribution of Secondary Treatment of	45 49
the Destribution of Secondary Treatment of the Dead in Central North Borneo Peter Metcalf Socio-Ecological Sketch of Two Sarawak	54
Longhouses Dietrich Kuhne	60
Brief Communications	-
The Rhinoceros and Mammal Extinction in General	71
News and Announcements	
Mervyn Aubrey Jaspan, 1926-1975. An	
Obituary	72 74
Borneo News	74
Book Reviews, Abstracts and Bibliography	
Tom Harrisson: Prehistoric Wood from Brunei, Borneo. (Barbara Harrisson)	77
Michael and Patricia Fogden: Animals and Their Colours. (Tom Harrisson)	
Elliott McClure: Migration and Survival of	78
the Birds of Asia. (Tom Harrisson)	/8

The Borneo Research Bulletin is published twice yearly (April) and September) by the Borneo Research Council. Please address all inquiries and contributions for publication to Vinson H. Sutlive, Editor, Borneo Research Bulletin, Department of Anthropology, College of William and Mary, Williamsburg, Virginia 23185, U.S.A. Single issues are available at US\$2.50.

Book Reviews, Abstracts and Bibliography (cont.)

Sevinc Carlson: Malaysia: Search for National Unity and Economic	79
Growth	30
Robert Reece: The cession of Sarawak to the British Crown in 1946 .	
Joan Seeler: Kenyah Dance, Sarawak, Malaysia: A Description and Analysis	30
Analysis	30
Bibliography	,0

NOTES FROM THE EDITOR

It is with regret that we acknowledge the termination of Donald E. Brown's editorship of the Bulletin. On behalf of all readers I express our appreciation for the excellent job he did.

The editor expresses his gratitude to the following persons who have made financial contributions for support of the <u>Bulletin</u>: Tim Babcock, Ian D. Black, Edward and Jocelyn Booth, Jonathan D. Cole, Sin-Fong Han, Barbara Harrisson, John MacDougall, Alastair Morrison, Carsten and Inge Niemitz, Roger D. Peranio, Ifor B. Powell, Clifford Sather, William M. Schneider, Virginia Tomasek, T. Watabe, and Inger Wulff.

Two suggestions have been received and will be considered for future issues. First, we shall attempt to collect from readers and others a list of Southeast Asian journals in the social sciences. Second, we shall publish titles in "New Books on Borneo." Contributions for both these sections will be gratefully received.

Together with this issue is included a list of Fellows of the Borneo. Research Council. If the name of any Fellow has been omitted, please notify us and we shall publish an addendum to accompany the next issue.

THE BORNEO RESEARCH COUNCIL

The Borneo Research Council was founded in 1968 and its membership consists of Fellows, an international group of scholars who are professionally engaged in research in Borneo. The goals of the Council are (1) to promote scientific research in the social, biological and medical sciences in Borneo; (2) to permit the research community, interested Borneo government departments and others to keep abreast of ongoing research and its results; (3) to serve as a vehicle for drawing attention to urgent research problems; (4) to coordinate the flow of information on Borneo research arising from many diverse sources; (5) to disseminate rapidly the initial results of research activity; and (6) to facilitate research by reporting on current conditions. The functions of the Council also include providing counsel and assistance to research conservation activities, and the practical application of research results. (cont. page 39)

RESEARCH NOTES

DISTRIBUTION OF PENAN AND PUNAN IN THE BELAGA DISTRICT

Jayl Langub

After reading the reports on the Punan in Kalimantan by Victor King and H.L. Whittier in the August 1974 issue of the <u>Borneo Research Bulletin</u>, readers may be interested to know the distribution of Penan and Punan in the Belaga district of Sarawak. Government records quite often use the name 'Punan' to refer to, what in actual fact are, two completely different groups of people in Belaga: one settled and the other ex-nomadic. In this article and in as far as Belaga is concerned, 'Punan' will be used to refer to the settled group and 'Penan' the ex-nomadic group.

There are three Punan longhouses in Belaga: Punan Ba, Punan Biau, and Punan Tepaling. Their total population in 1974 was 670 people. They are longhouse dwellers and sophisticated agriculturists in the sense of the rites and ceremonies they perform in connection with shifting cultivation. They share more or less the same social organization with the Kayan, Kenyah, and Kajang, the last group with which they have affinities and of which they are in fact a cultural subgroup. There is no evidence, within living memory, to indicate that they were nomads; in fact, long before the Brookes extended their rule into the Belaga area, they settled in a small river called Sungai Punan, a tributary of Sungai Ba, which in its turn is the tributary of Sungai Rajang. They practiced shifting padi cultivation and erected beautifully curved burial pillars such as the klering for their deceased chiefs. From the Sungai Punan they migrated to the Kakus in Tatau subdistrict and various places in the Bintulu district in the 4th Division, probably during the early present century. At the same time a group moved down the Sungai Ba and established three settlements along the Sungai Rajang.

With regards to the name the ex-nomads call themselves, most of them say that they should be correctly called 'Penan' and not 'Punan.' Although they accept being called 'Punan,' that is merely because they are not concerned as to what others call them and that they always see things the way their settled neighbours see them. The Penan call their settled neighbours *lebu'*, although that word, which literally in Penan means a race, has nothing to do with their neighbours being a settled people. Similarly, 'Penan' has no meaning in their language, but a name they use to distinguish themselves from the *lebu'*. Confusions that have lain on the terms 'Punan' and 'Penan' are beyond the scope and competence of this article to discuss and, therefore, left to competent experts, namely social scientists and anthropologists.

The Penan can be found in thirteen settlements. These settlements are in the highlands, in the headwaters of various tributaries of the Balui, except Penan Talun (population 60 approximately) at Long Belangan, on the bank of the Balui, which is in Kayan area. In the Ulu (upriver) Sungai Belaga there are two settlements: Long Urun (population 60+) and Long Kupang (population 160 approximately). There are six settlements in the Sungai Murum and its tributaries: Long Luar (population 120), Long Pangah (population 60+), Long Wat (population 140 approximately), Long Lawan (population 60 approximately), Long Jaik (population 50 approximately), and Long Dian (population 50 approximately). In the Sungai Linau and its tributary the Kajang, there are four settlements: Lusong Laku (population 130), Long Kajang (population 50 approximately), Long Tanyit (population 50 approximately), and Long Lidam (population 77).

The Penan Gang form the largest group, half the population of all the Penan in Belaga. They live in four different rivers: At Long Urun and Long Kupang in the Sungai Balaga; Long Dian and Long Jaik in the Sungai Belepeh/Seping; Long Luar and Long Pangah in the Sungai Pliran; and Long Wat in the Sungai Murum. Each settlement has a different history of migration, but all refer to Sungai Gang as their place of origin. In those days, they had to split into small bands as it was necessary for the nomadic type of life.

The Penan Lusong used to be called Penan Pejawe' as they were then living in the Pejawe River, a tributary of the Bra'an; later migration of two groups of Penan Lusong shows the change of the names they took. Anyway, the then Penan Pejawe' moved into the Linau Valley when the Kayan left the area to migrate to the Baram about 100 years ago. Before moving into the Linau Valley, they used to have frequent contact with government officials at Lusong Laku, a strategic barter trade location in the Linau. Around 1940 a small temporary kubu (fort) was erected there where government business and barter trade between the nomads and their settled neighbours was done. Regular meetings in this way induced the Penan Pejawe' to settle at Lusong Laku; from then on they became known as Penan Lusong. During the Japanese Occupation a group of seven families moved to the Balui. They roamed about in the talun, which in Kayan means secondary forest, that they farmed and the Penan took the name of Penan Talun. Around 1973 the group that remained at Lusong Laku further split into three groups: one group remained at Lusong Laku while another moved up the Linau to settle at Long Kajang and would probably take the name of Penan Kajang; the group of Penan Apo that settled with the Penan Lusong since 1964 also moved to Long Tanyit, above Long Kajang.

The Penan Apo used to live in the Usun Apau plateau. In 1934 Mr. Huddon (then District Officer, Baram) met them and persuaded them to move downriver into the Linau or the Danum, but they told the District Officer that they would prefer to stay in the Apau where wild animals and wild sago were in abundance. However, some years later they moved into the Pejaka' River, a tributary of the Danum, and stayed there for a number of years. From there they moved into the Sungai Keluan, a downriver tributary of the Linau. After about two years in that area they split into two groups: one group moved to the Tegulang and another to the Linau and settled with the Penan Lusong for a number of years before moving again to their present settlement at Long Tanyit.

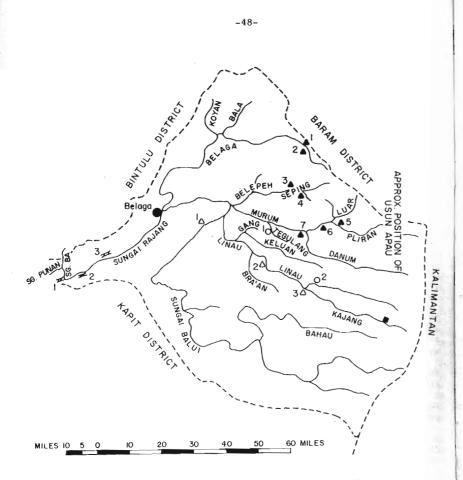
The Punan Busang form a single band, and this group differs linguistically and culturally from the rest of the other Penans. In fact, this group used to be the enemy of the other nomads. When asked whether they are 'Penan' or 'Punan,' it is less likely that they would accept the former name, so the name Punan is given here. They claim to be closely related to the Lisum people of Kalimantan. They refer to Sungai Busang, a tributary of the Balui, close to the border with Kalimantan, as their place of origin. Long time ago they crossed the border into Kalimantan, in the upper Kayan River, in the *kecamatan* Kayan Hulu. They stayed there for many years but kept very much to themselves. From there they split into two groups: one group crossed the border into Sarawak and roamed about at various places in the upper Linau, Danum and Kajang where they took more or less permanent settlement at Long Lidam; the other group remained in Kalimantan, in Sungai Kihan, a tributary of the Iwan, and are now known as Punan Busang Kihan. They used to be quite numerous, but many were decimated by epidemic.

All the Penan have settled in more or less permanent settlements and cultivate hill padi, though their farms are not of the same size as those found among their settled neighbours. They were induced to settle down mainly through barter trade activities and religious conversion to *adat Bungan* and more recently Christianity. Government encourages them toward the settled life; in fact, government has started to help them resettle in proper longhouses and cultivate better and larger farms. But government assistance is limited to the fact that presently it is not known precisely what in actual fact ought to be done to improve them.

The Penan still spend a considerable amount of their time hunting wild animals for food - wildlife is still in abundance in their area. Although they are now cultivating padi, they still depend very much on wild sago which previously was their staple food.

The Penan produce for sale *rattan* mats and baskets; they are also skilled blacksmiths and make good *parang* (popular multi-purpose working knife). All of these articles are of high quality and are in popular demand by their settled neighbours and the Chinese. These articles fetch good prices.

The process of adaptation to the settled life will probably undergo slow speed rate since such adaptation entails changes of attitudes, thoughts, values and behaviours.



MAP SHOWING DISTRIBUTION OF PENAN AND PUNAN

	KEY						
πI	PUNAN BA		01	PENAN	APO,	LONG LAWAN	
т 2	PUNAN BIAU		O 2	PENAN	APO,	LONG TANYIT	
д 3	PUNAN TEPALING						
			01		TALUN,		
A 1	PENAN GANG, LONG	URUN	∆ 2			, LUSONG LAKU	
▲ 2	PENAN GANG, LONG	KUPANG	∆3	PENAN	KAJANG	, LONG KAJANG	
▲ 3	PENAN GANG, LONG	DIAN					
4	PENAN GANG, LONG	JAIK	۰. ا	PUNAN	BUSANG	j	
▲ 5	PENAN GANG, LONG	LUAR					
▲ 6	PENAN GANG, LONG	PANGAH					
A 7	PENAN BANG. LONG	WAT					

NOTES ON THE KELABIT

Mady Villard

The Kelabit live in the high mountains of Borneo where they represent one of the smallest (3200 to 3500 habitants in 1974) among the hundreds of tribes of the island. Their territory, which is protected since they agreed not to be headhunters anymore (one has to ask for special permit to visit them), is located on the chain of high summits forming a natural border between the Malaysian and the Indonesian part of the island, about 300 to 350 kilometers from the North Coast bordered by the China Sea the way a bird flies. Their land is between the Big Murud (2700 meters around) to the east and the Small Murud (around 2000 meters) to the west, grosso modo about 90 kilometers long for 55 kilometers large.

The Kelabit have a community life. Each village is formed with only one house built very long (often over 100 meters) resting on high stilts (over 20 meters) where there is an average of 10 to 15 families. Their long houses are situated in beautiful clearings found in the deep jungle. Often they are several walking days distance from each other. For example, the long house of Long Lellang is four walking days from Bareo, although the distance is only 35 kilometers the way a bird flies.

The capital, called Bareo, is represented by an exceptional group of five long houses, less than 30 minutes walk from each other, in the so-called "plain of Bareo." The old Kelabit people call it *Lam Ba'a*, which means "in the water." It is a small valley that was made into wet rice fields by the natives.

Every 20 years the Kelabit abandon their long house to make another in another clearing. At present there are 27 long houses in their domain, of which ten have been abandoned during the last ten years. Of the 17 left, a dozen have been rebuilt during the last ten years, especially around Bareo where the Kelabit are growing more and more wet rice. Yet the Kelabit majority grows hill rice by burning the forest. They are excellent agriculturalists and get the best from their soil.

They have rice (17 kinds in Long Lellang), maize (six kinds), tapioca and manioc, pineapple, pumpkin, cucumber, beans, ginger, red pepper, sugar cane, onions, garlic, different sorts of vegetables and also coffee. There is plenty of fruits like: several kinds of banana, orange and lemon, pomelo, rumbutan, papaya, durian, jack fruit, *buah kiran*, coconuts, and also delicious wild fruits. They also eat the unattended jungle essences such as bamboo shoots, palm hearts, and mushrooms.

There is plenty of game in the forest like wild boars, *pelandok* and *kijang* (varieties of deer), *payo* (kind of reindeer), *payu* (kind of black panther), *bruang* (honey bear), not to speak of pheasants and other birds.

Fishing is unlimited, including the small pakong and the bigger carnivorous kalaban tortoises and the delicious todayo and kabuk iguanas.

The Kelabit also grow tobacco.

Their abundant and varied food, with the help of a healthful climate, hot in daytime, cold at night (the optimum temperature is 60° at midday in the sun and 20° at midnight after several days without rain - the average is 57° to 58° at midday and 25° at midnight), have made the Kelabit a powerful race, famed for their strength as well as for their skillfulness, their brains and their wealth.

Their land also provides a good clay for their pottery at Pa'mada, and they get their salt, the most appreciated product for the jungle people, out of salted sources situated on their territory. That salt called *toddho'* is very prized and since the old age has always been their exchange money to get the iron ore detained by their neighbours in Indonesia.

To my knowledge, the Kelabit are the only tribe of Sarawak to be selfsufficient. If one adds to that the difficult way to get to their place, one understands that the Kelabit have always had an advantageous situation, especially during the time of head-hunting.

There are quite a number of Kelabit customs which differ from their neighbours. There is one especially fascinating. It is the custom about the traditional namings.

Of the majority of the Borneo tribes, the name of an adult shows his family situation by progressive addition of certain words explaining that he is, for example: father, widow, having lost his first son, or his first daughter, grandfather, etc.

Because of the Kelabit custom, the adult's name is completely changed, and every time a man or a woman changes their family situation, they receive a new name whose originality is that that name is always chosen according to one of their characteristics. For example:

> pun nakaro = great talkative ribuh bala = the one who carries on novelties bala raja = strong man petuan lumulun = the one whose company is in great demand bala lat pu'un = known from the very beginning

During his first year, the child receives a name without signification, chosen among about fifty or sixty of them. (NOTE: There are two types of names, for noble and for common people.) As soon as they become a father or a mother, a new name is given to them. One does not change his name for a wedding. All the village gathers together for a big *irau* (feast) offered by the honored family who gives buffaloes, pigs, chickens, rice and rice alcohol. During that party they all together choose a name for the child, then a new name for the parents, great-grandparents, grandparents, and also, if they wish it, for the collateral relatives. But then these relatives have to share the cost of the *irau* with the honored family.

Everyone receives a name expressing one of his good or bad qualities, except the mother who is called *sinah* (mother), followed by the name given to her husband. Only when she becomes a grandmother will she receive a name on her own.

There is a general law: all the names chosen for the greatgrandparents are preceded by *pun*, the names chosen for the grandparents start by *tepu*, and the names for the parents by *tama* for the father and *sinah* for the mother. One can take these titles as generation-markers.

The chosen names, always two of them, have a significance depending on how they follow each other. For example: *bala raja* means strong man and *raja bala* means big chief.

These generation-markers are altered by whether one is speaking directly to the person or talking about him, and according to whether the person is a relative or a stranger.

For example, a child will call his own grandparents as well as all the other people of the same generation tepu. If he is talking about his own grandparents he will still say tepu, only followed by the first part of his grandparents names if he wishes to make a difference between his grandfather and his grandmother. If he speaks with a friend about his friend's grandparents, he will say tapum, only followed by the first part of their name if he needs to differentiate them. If he speaks about an old person who is related to none of them, he will say tepu followed by both their names.

Among themselves grandparents call each other pabu (if their first grandchild is a boy) and pamu (if it is a girl). Their own children will call them the same way and all the people of their generation. Talking about each other the grandparents will follow pabu and pamu by the first part of their name, but their own children will follow pabu and pamu and pamu by both the parts of their name.

There is an important exception to the last rule concerning a very wellknown man or woman. One will follow *pabu* or *pamu* by the first part of his name as a sign of distinction.

Fathers and mothers are called *tama* and *sinah* by all the children of the same generation as their own children. It their own children speak about them they will say *tama* or *sinah* only, but speaking about their inter-locutor's parents they will say *tamam* or *sinam* depending on the sentence, or *tatama*, *tasinah*. If they are speaking about the parents of another child, they will add <u>both their names</u>; for example, *tama raja maran* or *sinah raja maran*.

Between themselves the parents call each other *tamabu* and *sinabu* (if the first child is a boy) or *tamu* and *sinamu* (if it is a girl). That is also the way their own fathers and mothers will call them, and their brothers and sisters too, like also the people of the same generation. It is also the way the father will call the mother (his wife). Talking about each other, they will add the first part of their name only.

There is an old custom but very seldom used now concerning the parents who have lost their first child. It it was a boy, the father will be called *tanira*, the mother *sanira*. If it was a girl, the parents will be called *tanuddhung* and *sinaddhung*. The children are always called by their original name.

There is a special form of manners and tenderness used when talking directly to someone. For example: speaking about their grandchildren the old people will say *mupun*, but speaking directly to them, they will say *pu'*.

Speaking about the children, the parents will say *ama*, but talking directly to them, they will say *abu'* (son) or *mu'* (daughter).

A common expression used during the *irau* is *ama'*, *bu'* (children, grand-children), or also *abu'*, *mu'* (for a couple).

A very subtle and polite way of speaking, which not too many people can use, would make one say:

tatama tamam (the father of your father) tatama sinam (the father of your mother) tasinah tamam (the mother of your father) tasinah sinam (the mother of your mother)

rather than adding one or both the names of the implicated people.

The Kelabit rules make it very impolite to pronounce the name of anyone if it can be avoided. But as many people do not know how to speak in a very fine way, they will rather say,

> "That old man sitting there," or "That woman making a basket there."

Speaking about their own parents, the children will say,

"That man there is busy," or "That woman there asked me to go collect firewood,"

rather than using tama or sinah.

Following the same habit, the Kelabit never give their own name when meeting a stranger. They will rather give another name; but nowadays they have mostly abandoned that custom.

The Kelabit call brother and sister *kananak*. The oldest brother or the oldest sister is *kananak suk raya*.

The cousins are called *dangakanid*. The first degree cousins are *dangakanid* suk ka addha.

The step parents are dangaja'.

A man is dalai and the plural is lumulun.

A woman is daddhur, usually pronounced in a short way, 'dur.

When visiting another long house, they will never ask, "How do you do?" but rather, "Are the children bathing here?" This is exactly the same because nobody goes for a bath if there are sick people in the house. This was true until a short time ago because nowadays the Kelabit no longer believe in taboos associating sickness and baths. THE DISTRIBUTION OF SECONDARY TREATMENT OF THE DEAD IN CENTRAL NORTH BORNEO

Peter Metcalf Harvard University

In the course of recent field work among the Berawan of Baram District, Sarawak, a search for their closest linguistic connections brought into focus a string of related groups distributed in an arc across northern Sarawak. It so happens that these same peoples are the ones who traditionally practiced secondary treatment of the dead. It seems that they represent a cultural substratum which predates the arrival of the Kayan and Kenyah in the area.

This note outlines the present distribution of these peoples. It is an abbreviated version of an article that will appear elsewhere, and which will include an account of the historical events that caused the culture complex to become submerged. This summary is intended to make the material available more rapidly than is possible in other journals.

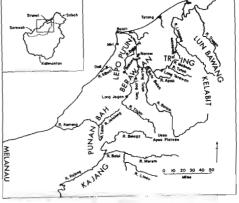
The Berawan

The Berawan number about 1600 souls, in four main longhouse communities, two in the Tinjar and two in the Tutoh (see map). In the census and in local popular wisdom, they are classified as a subgroup of the Kenyah. At first sight this seems sensible, given the known heterogeneity of the latter. But a closer inspection reveals differences of language and culture that make it impossible to stretch the cover term Kenyah to accommodate the Berawan. The search for their real cultural affiliations began with an examination of the linguistic situation. Luckily, systematic linguistic fieldwork has recently been carried out in the Baram District by Robert Blust (1972), and a recent survey by Al Hudson (1974) enables us to carry the search south into Third Division and north into Fifth Division.

The lower Baram language family

As one might expect, the most immediate linguistic relatives of the Berawan are found nearby. Blust distinguishes a distinct family of Lower Baram languages that comprise the four Berawan isolects (Long Jegan, Long Teru, Batu Belah, and Long Terawan) plus: Long Tutoh, Narom (spoken in *kampong* Narom near Marudi), Bakong (spoken at a village near Beluzu in the Bakong River), Dali' (spoken at a village near Sibuti), Niti (spoken in several small *kampong* close to Miri town), Belait (*kampong* close to Kuala Belait), Tutong (*kampong* near Tutong), and finally Lelak. Lelak is the language of the original settlers of Long Teru, but it has almost disappeared now because of heavy Berawan migration into the community. Another language, Lemiting, was spoken by a small group of the same name early in the century who have now become extinct or assimilated to some other group.

For historical reasons having to do with events in the Baram in the latter half of the last century, most of these communities have now adopted Islam.



Sketch Map of Northern Sarawak Showing the Distribution of Peoples Practicing Secondary Treatment of the Dead

Individual communities are labeled only for peoples of the lower Baram area, and they are shown in their present location. The Tring are indicated across roughly the territory that they occupied at the middle of the last century. The main areas of Melanau settlement lie off the map to the west.

Consequently, following the usual practice in Sarawak, they are classified as Malays, and they have in general adopted Malay ways. Only the Berawan, the Long Tutoh folk, and the remnant of the Lelak still adhere to an orang ulu ("upriver people") lifestyle. As we have seen, they have been subsumed under the category Kenyah, simply as a matter of convenience. Thus, a pre-existing culture complex in the lower Baram has become submerged. It is interesting to note that when Charles Hose was living in and writing about the Baram, it was much easier to discern a separate group of downriver tribes, as he clearly does in several of his writings (e.g. 1893), and this was due to the fact that the conversions to Islam had only recently occurred. The complex has no name that is in current use, but an old name, constructed in the Kenyah style, is still heard occasionally: Lepo Pu'un. Lepo means roughly a nation, Pu'un is derived from the word to own (Berawan Long Teru: puwong), so that the name implies something like "the original owners of the land.".

Links to the south

Hudson's classification also notes the linguistic unity of the Lower Baram isolects. At the next taxonomic level he groups them with languages spoken to the south in Third division. Of these the closest geographically to the Berawan is Punan Bah. Until shortly before the Second World War, the Long Jegan Berawan community had its longhouse at Long Tisam, further up the Tinjar. From there an easy route let into the Tubau stream in the headwaters of the Kemena River, where Punan Bah farmhouses were located. Another branch of the Kemena, the Jelalong, also contained Punan Bah folk, and a track from there gave easy access into the Belaga. Thus, the Punan Bah formed an intermediary group between the Berawan and the Kajang of the Belaga, and evidence of the link is easy to find in Berawan genealogies, stories and rituals. Nor are we surprised to find that the important Kajang communities of the Belaga, the Kejaman, Sekapan, and Lahanan, are also linguistically related to the Berawan, at the same taxonomic level as the Punan Bah.

One other linguistic relative to the south deserves special mention, the Melanau. Berawan cultural links to the Melanau are less obvious, probably because of their physical remoteness. What contacts can be traced are evidently via the Kajang, who have sometimes been called the "inland Melanau."

Links to the north

Berawan linguistic affiliations to the north are less easy to discern. Berawan at Long Terawan in the Tutoh River claim that their language is close to Tring, a language spoken by a tribe that once occupied much of the Tutoh and Limbang rivers. But this similarity may be the result of a mixing of the two languages over the past hundred years. The Tring were all but annihilated in warfare in the second half of the last century, and a remnant allied itself with the Berawan. Since then they have been largely assimilated into the Long Terawan community.

Hudson's classification does not indicate a close link between Tring and the Lower Baram isolects. He contrasts the two at the same taxonomic level as Kenyah and Berawan. Without further research, we cannot tell whether Berawan is more closely related to Tring or Kenyah, but I hypothesize the former for reasons that will be clear in a moment. What is definite is that Tring is closely related to the Lun Bawang and Lun Dayeh languages spoken in the Trusan River, and to Kelabit spoken in the plateau at the head of the Baram River.

The nulang arc

It is thus possible to discern a chain of linguistic connections extending in an arc across northern Sarawak. But is there any cultural distinctiveness that parallels this set of linguistic links? There is: the practice of secondary treatment of the dead.

Many cultural features demarcate the Berawan from their Kenyah neighbors: Berawan do not have the elaborate naming ceremonies (*pusau*) common to all Kenyah groups, residence within the longhouse is structured by a firm rule of uxorilocality unlike the Kenyah, Berawan chiefs are less powerful than Kenyah ones, and their religions are different on many points. But one item stands out above all others. Rites of secondary treatment of the dead are the most important ceremonies of the Berawan people; Kenyah do not have such rites, claim they never have had, and express disgust when they are described to them.

A word on terminology is necessary here. Secondary burial is the most familiar term for the mortuary practices that I refer to, but the term seems inappropriate here, since Berawan do not typically <u>bury</u> corpses at all. The phrases secondary disposal of the dead and secondary treatment of the dead, while accurate, are clumsy. I have preferred therefore to employ the Berawan word *nulang*, which in closely cognate form is found in several other languages in the area. It is also a cognate of *tulang*, a bone or bones.

Unfortunately, the material in print on *nulang* rituals in north Borneo is woefully inadequate, and the opportunity to do even salvage research is rapidly slipping away. Nevertheless, there are enough references in print to make it clear that all the groups that we previously noted were linguistically related to the Berawan also traditionally practiced *nulang*. For compactness of presentation, I will simply list some of these references here. For the Kelabit: Harrisson 1962: 10, for the Lun Bawang and Lun Dayeh: Ricketts 1894, for the Tring: Moulton 1912, for the lower Baram people: Hose 1893: 172, for the Punan Bah: Clayre 1972, for the Kajang: Thomas 1971, and for the Melanau: Jamun 1949. The only community still practicing these rites is the Berawan house at Long Teru, and they are described in Metcalf 1975.

The distribution of peoples in northern Sarawak who traditionally practiced *nulang* is shown in the accompanying map. Excluding the Melanau, it has the form of an arc, beginning in the Belaga, curving north through the lower Baram and into the Limbang and Trusan, and ending in the Kelabit highlands. I refer to this distribution as the *nulang* arc. No cover term is available for the tribes dotted along it, and amid such a welter of names one hesitates to make up new ones. It is convenient simply to call them the people of the *nulang* arc.

The Kejaman, Sekapan, and Punan Bah, of the upper Rejang area, are classified in the census as Melanau, which does no violence to the facts, but does disguise the ethnological connections to the north. The lower Baram peoples are now, as we have seen, parcelled up into "Kenyah" and "Malay." The Lun Bawang and Lun are called "Murut," both in the census and in popular usage, and this is completely inaccurate. The Murut proper speak an exo-Bornean language unrelated to Lun Bawang or Lun Dayeh. Only the Kelabit seem well served by their name. It is a true autonym, and they are classified independently in the census. The only fault with this independence of classification is that it makes the Kelabit seem too singular: marooned in the middle of Borneo, apparently without affiliations to any other groups.

In fact, it is a feature of each of the ethnic groups of the nulang arc that they appear miniscule and freakish when viewed in a parochial context. It is only when north Sarawak is viewed as a whole that their occurrence makes sense. They are the elements of a submerged complex which taxonomically can be contrasted with the Kayan and Kenyah. It is not my purpose to suggest revisions in the classification of the national census. Such changes would be pedantic, since the categories of the census, by and large, reflect modern political and social realities. The significance is ethnographic.

The people of the *nulang* arc represent an ancient cultural substratum in north Borneo. All the other ethnic groups and cultural influences that now dominate them are extraneous. Their antiquity is perhaps comparable to that of the Ngaju of southern Borneo, who are well known through the writing of Schärer and others. The Ngaju also practice rites of secondary treatment of the dead, so that this culture trait emerges clearly as characteristic of the most ancient cultural traditions of Borneo. The archaeological record, incomplete as it is, supports this conclusion.

Perhaps there is also something to be learned from the shape of the *nulang* arc. There is no obvious ecological reason for this strip-like distribution of related groups. We would *prima facie* expect a more circular shape, and that is what is produced if we reconstruct a previous distribution based upon the migration stories of the Berawan and others.

The Berawan and Long Tutoh folk have traditions of origin from the Usan Apau. The Lelak and other lower Baram peoples do not. The Kejaman and Sekapan tell of a folk hero named Tagau who led all of the Kajang. folk out of the Linau River, which lies just to the south of the Usan Apau (Clayre 1971). Utilizing these clues, we may hypothesize that at some time before the arrival of the Kayan and Kenyah the indigenous inhabitants of the area were distributed more evenly across northern Sarawak. The hypothesis ought to be testable by archaeological excavation. The presence of secondary burial practices should be deducible from excavations and such a find in the Usan Apau would validate a pre-Kenyah occupation, presumably by ancestors of the Berawan and their cousins.

The present distribution is the result of migration down the major rivers that flow north, south, and west out of the Usan Apau. Since they radiate like spokes from a central hub, the result is a curvilinear distribution of peoples. We are left with the question of why those in the Usan Apau left it. The Berawan deny that they were displaced by the Kenyah. Population pressure may conceivably have started the move, though the Usan Apau is fertile and very large, but why would the area have been left deserted? There is no obvious explanation. The next wave of settlers in the Usan Apau, the Kenyah, likewise abandoned it and moved down the rivers toward the coast. Their motives are equally inscrutable.

<u>Bibliography</u>: Blust, R., 1972, "Report of linguistic fieldwork undertaken in Sarawak," <u>Borneo Research Bulletin</u>, 4: 12-14; Clayre, I., 1971, "The Kajang Kingdom," <u>Sarawak Gazette</u>, no. 1362, August; Harrisson, T., 1962, "Borneo death," <u>Bijdragen</u>, 118: 1-41; Hose, C., 1893, "The natives of Borneo," Journal of the Royal Anthropological Institute, 23: 156-72; Hudson, A., 1974, "Linguistic Relations among Bornean Peoples with Special Reference to Sarawak," <u>Studies in Third World Societies</u> (in press); Jamuh, G., 1949, "Jerunai," <u>Sarawak</u> Museum Journal, 5: 62-68; Metcalf, P., 1975, Death rituals of the Berawan of central north Borneo. Unpublished thesis; Moulton, J., 1912, "The Trengs," <u>Sarawak Museum Journal</u>, 1: 91-95; Ricketts, R., 1894, "The Muruts," <u>Sarawak Gazette XXIV</u>, January; Thomas, C., 1971, "Funeral customs of the Kejaman," Sarawak Museum Journal, 19: 313-16.

SOCIO-ECOLOGICAL SKETCH OF TWO SARAWAK LONGHOUSES

Dietrich Kuhne

I. RUMAH KEJAMAN LASAH, Kapit District, Sarawak: Longhouse in extreme isolation.

(Position: 2° 46' N, 113°, 56' E, along the Balui River, approximately 12 miles above Belaga, Kapit District, Third Division, Sarawak. Twentynine doors, three of them unoccupied. Population: 180. Time of investigation: October 1970.)

Rumah Kejaman Lasah is a longhouse settlement having few contacts with the outer world and with a traditional life still almost intact. It consists of two longhouses, one of which has eleven "doors" - identical with eleven households, the other 16 doors, including a small dependence. In between there are two bungalows stilted up like all autochthonous dwellings, one of which demonstrates by style, size and distance that it has some rank being the headman's house. About 200 yards further eastward there is, for some years, a small school and a teacher's house.

With the exception of the teacher, who is Iban (Sea Dayak), all inhabitants of the village are Kejaman, belonging to a very small, aristocratically organized sub-group of the Melanau. Nowadays the latter are settled along the coastal region between Oya and Mukah with no connections anymore, yet people still remember. Tradition, told by the headman, also knows of old relations with Indonesian Kalimantan and of a kingdom stretching halfway down the Rejang before it was smashed by the Brooke Administration. Symbolic of past glory is the grand ornamentation of two enormous tomb poles overgrown by virgin jungle.¹ Meanwhile, for some generations the larger groups of the Kenyah and Kayan have pushed the remainder of this tribe upstream, pushed themselves by the Iban. Nonetheless, open conflicts hardly occurred among them all since the suppression of head-hunting.

The sole link to the outer world is Belaga, the last bazaar post at the Upper Rejang. Apart from a few Chinese shops, there are the Subdistrict Office, the Post Office, and the upper grades of the Primary School. Besides the Chinese and the indigenous population lives a small colony of Brunei Malays, who formerly carried on inland trade before the Chinese took over. The latter now maintain a fairly regular freight-boat-service to Kapit, the district town, located two days' journey downstream behind some series of rapids. Furthermore, Kapit can be reached twice weekly by a 40 minute flight. There are no road connections, and the Kejaman hardly ever undertake a canoe trip to Belaga unless combining official matters with some shopping. In such cases the stay at the bazaar may take a few days, a welcome occasion for heavy drinking.

Rumah Kejaman Lasah still operates its self-sufficient economy as most of the longhouses at the Upper Rejang do. The basic crop is hill padi grown in shifting cultivation (*ladang*), completed by a broad variety of other crops, i.e. maize, cucumbers, pumpkins, beans, tapioca, etc., but also bananas, rambutan, betel and illipe nuts, coffee, tobacco and sugar cane almost entirely for own consumption. Pigs and poultry provide "Specialists" other than the teacher do not yet exist here. However, more than half of all the households have occasional incomes from wage labor, particularly from wood-cutting and boat-building, although the actual amounts are often not known. According to direct interviews information, the whole village had a monetary income of approximately M \$3.300 in 1969,² of which M \$2.040 alone were the teacher's salary. Unstated incomes hardly went beyond M \$500 in all.

aged and prices so bad that no one cared for tapping the trees in recent

By all means, considering the alcoholic orgies at the bazaar, the general shortage of cash is not regrettable. And in order to cover the requirements for salt, kerosene, fire-arm ammunition and cigarettes, the credits are sufficient at any rate. Besides, the Kejaman are not just anxious for industrial goods. If at all, then owning a sewing machine is of some meaning, combining usefulness with prestige. Bicycles are not in demand as there is no use for them. Four outboard engines are considered luxury items. Even two transistor radios rouse little ambition to copy the happy owners because all neighbors are partakers of the program, willingly or not.

The local work force pattern was as follows:

vears.

RUMAH KEJAMAN LASAH - WORK FORCE PATTERN 1970

		Persons	°b.
Persons at wor	king age (12 years and above)	115	100
of these	shifting cultivators	76	66
of these	hunters and fishermen	44	38
of these	collectors	39	34
	ALL TRADITIONAL WORK	159	138 (1)
further	teacher	1	1
further	wage laborers	27	24
	ALL WORK	187	163 (!)

The number of 115 persons at working age of 12 years and above was practically reduced by a few pupils and a few old people. Yet all work in the traditional self-sufficient economy was carried out by a larger group, viz. 159 persons! Furthermore, there were 28 wage earners. Since foreign labor does not exist, "all work" to be done by 187 fictitious persons was actually performed by only those 115 individuals who were available for it at best. Which means that a lot of people of both sexes had two or more economic functions. In other words, unemployment or underemployment is a problem still unknown on this level of economy.

The effect, however, which the "revolution of rising expectations" initiated through school attendance - will have on the future traditional way of life remains to be seen. After all, more than two-thirds of a total of 31 youths between the ages of 7 and 18 are attending school, the lower age groups complete. Of course, the pupils have no need yet for complaining about an overwhelming flood of information, even if holidays apart from Sundays and feasts are unknown. The teacher is "untrained," qualified only by Secondary Form III. However, his pupils can shift to the Upper Primary grades at Belaga, and later have the chance to advance to the Secondary level at Kapit, provided they achieve adequate results on their examinations. At any rate there is no doubt that the number of illiterates will quickly diminish. (At the time of enquiry 103 out of 108 adults were illiterate.)

For the time being, the impact of education and of the outside world as a whole have relatively little effect on population dynamics. Both natural factors - fertility and mortality - are still very high, especially infant mortality, as the following figures indicate:³

RUMAH KEJAMAN LASAH - POPULATION, BIRTHS AND DEATHS 1960-1970

	absolute	ૠ
Population 1960	154	100.0
Births 1960-1970	95	61.7
Infant mortality, accidents	30	19.5
Other deaths	30	19.5
NATURAL INCREASE	35	22.7

Fertility was exceptionally high according to the population of 1960 it would have meant an increase of almost two-thirds if there were no counter-balance by high mortality. Indeed, every third child born between 1960 and 1970 was already dead at the time of enquiry and so was every other third person at that time. Nonetheless, a remarkable excess of births and deaths remains.

Migratory movements were quite considerable, too, as the following figures show:

RUMAH KEJAMAN LASAH - POPULATION, IN- AND OUT-MIGRATION, 1960-1970

	absolute	8
Population 1960	154	100.0
In-Migration 1960-1970	21	13.6
Out-Migration 1960-1970	30	19.5
MIGRATION LOSS	9	5.8

It seems that marriages into and out of the village community are the principal causes for this rather balanced result. Also the sex ratio is practically even: in 1970 there were 91 females of all age-groups against 89 males; in other words employment migrations did not visibly affect the population. The migration loss of 5.8 per cent seems, therefore, "accidental" rather than "subject to structure." At any rate, it had a compensatory effect:

RUMAH KEJAMAN LASAH - POPULATION DYNAMICS 1960-1970

	absolute	8
Population 1960	154	100.0
Excess of Births 1960-1970	35	22.7
Migration Loss 1960-1970	. 9	5.8
Population 1970	180	116.9
TOTAL INCREASE	26	16.9

Obviously, local population growth is almost only half in comparison with that of the indigenous groups in general, which was 28.7 per cent for Sarawak at the same period. Theoretically, the village population would double in 59 instead of 36 years. So the demographic component can be considered as relatively stable as the whole traditional life pattern of the village is. And something similar can be said about the entire hinterland as long as there are no closer contacts with the outside world.

Characteristic for the relatively untouched traditional life pattern is also the attitude of women toward contraception. Out of 38 mothers consulted, there was not a single one using any kind of contraceptive (nor anyone expressing an opinion against it)--37 had no opinion at all, and only one, the headman's wife, said that contraceptives would be desirable.

Migration dynamics, too, fit fully into this scene. Primarily they reflect the old ambilocal marriage habits urging at personal exchange among settlements: women and men enter into the longhouse community as spouses, women and men leave it for the same reason.

Problems of soil exhaustion and low productivity stemming from overpopulation are less pressing than in other parts of Sarawak. Seventy-one per cent of the households considered rotation of their fields as normal. Twelve per cent cultivated their land in some parts for more than two years "because the soil is good." And only seventeen per cent operated a shortened rotation cycle.

II. RUMAH NYALA, Sibu Rural District, Sarawak: Longhouse in urbanmarginal location.

(Position: 2° 21' N, 111° 51' E, near the Igan River, the eastern main arm of the Rejang delta; approximately 4.5 miles downstream from Sibu,

the commercial capital and second largest town of Sarawak. Twenty-eight doors and 20 bungalows, four of them unoccupied. Population: 224. Time of investigation: November 1970.)

Rumah Nyala represents the other end of a broad scale of longhouse settlements with increasing outworld contacts and growing interdependence from the standpoint of the former example. The location is only about 1.5 miles north of the Sibu urban area border. It can easily be reached by car within ten minutes from the city centre over good roads and by an additional quarter hour's walk through aging rubber plantations. Not far away is the airport which offers various jobs.

The place itself consists of two longhouses, also. One is Christianized, with 21 doors; the other "pagan," with seven doors. The latter is in perceptibly better condition in spite of the fact that missionaries obviously failed to make the occupants remove their head trophies of the olden days from their verandah. Both longhouses have their own tuai rumah (headman), yet - due to the egalitarian concept of the Iban (Sea Dayak), to which group the villagers belong without exception - they avoid any visible distance to which the Kejaman upper ranks gave so much importance, as it seemed. Here the headman is nothing but primus inter pares, living with the others under one roof. Nevertheless, there are already a number of households - 20 altogether - which have detached themselves from the close "apartment house" - shoulder-to-shoulder ~ touch and moved into single bungalows nearby. This may be a sign of over-population rather than of the opening of a new social gap, because it is much easier to erect a new single stilt-house from time to time than to extend that compact longhouse structure again and again. Perhaps the fact that a number of houses for other functions than dwelling sprang up around the longhouses may also have influenced the decision of some households to separate from the others. Most of the special-function units - a small common meeting hall, two shops, two diesel rice-mills run by cooperatives and replacing the traditional pounding, further a public water tank, some proper stables for pigs and fowl, and a few tool sheds - are phenomena unseen in the previous example. The Methodist church and elementary school with several grades, a little further away, are here almost taken for granted.

Hill-padi shifting cultivation is no part of the economy of the 44 households. Due to its lowland riverine location, Rumah Nyala plants only wetpadi in a total area of 97.5 acres of sawah-land. All sawah patches are family owned, and so are the over-aged and presently unused rubber gardens taking up another 265 acres further inland behind the longhouses. The whole variety of other crops, so characteristic for the self-subsistence economy in the former case, is completely absent here. Fruits and vegetables as well as various kinds of cheap canned food are available in the shops, also coffee, tobacco and sugar. Hunting and even fishing have been given up, not to mention gathering activities. Only every third household has a boat (with the Kejaman every household had an average of two), and in the whole village there are no longer any fire-arms. In other words, the elementary basis of existence is almost entirely coming from one source only. Due to this fact the whole employment pattern has changed. Hired labor and even some specialization in secondary and tertiary activities have to compensate the loss of self-sufficiency now. But the most remarkable phenomenon is that with the loss of self-sufficiency there occurs a drastic shrinking of employment volume.

Persons

RUMAH NYALA - WORK FORCE PATTERN 1970

		reisons	5
Persons at wor)	king age (12 years and above)	131	100.0
of these	padi planters	80	61.1
of these	hunters and fishermen		
of these	gatherers		
	ALL TRADITIONAL WORK	80	61.1
further	lumbermen	2	1.5
further	brick-workers	3	2.3
further	unskilled workers (coolies)	6	4.6
further	carpenters	1	0.8
further	shopkeepers	2	1.5
further	cooks	3	2.3
further	midwives	1	0.8
further	motorists (PWD)	2	1.5
further	soldiers	1	0.8
further	firemen (airport)	2	1.5
further	teachers	l	0.8
further	party officials	. 1	0.8
	ALL WORK	105	80.2

In every respect a radical change, marked not only by reduction of the former broadly-based traditional economy to one-sidedness, but also by disentanglement and separation of the personal functions. There is no longer, with rare exception, a combination of two or more different activities per head. Consequently, the local work force volume falls below the 100 per cent limit! And this even with only one quarter of all functions receiving payment.

Of course, a situation like this not only holds the risks of increasing anarchy, but also has the pleasant side of a purchasing power unknown previously. On the other hand, there is already some consumptionpressure: 21 men are working outside the village, and it is not by sheer chance that the 14 bicycles, one motorcycle, one motor-car and five outboard engines, totalling 21 means of transportation at Rumah Nyala, have become more or less indispensable. Here in the village, every second household has a radio, and two out of every three households possess the popular sewing machine, often the latest model. All this indicates growing dependence on industrial products, useful on one hand, on the other hand having the magic quality to strengthen the owners' self-confidence. Once having got the taste for modern industrial consumption goods, demand extends to items like gas-cookers, steel furniture, and so on. Compared with the Kejaman village, this community has a quite considerable monetary income. Whilst the sale of agricultural products (i.e. surplus of rice) amounts to only M\$ 180 annually, employment outside the village yields no less than M\$ 48,650, which leads to a per-capita income nearly thirteen times higher than in the former case. But, of course, in reality the income distribution is extremely uneven. Naturally the main participants of new prosperity are only the households with one or two laborers commuting daily. Some wives receive monthly remittances from husbands permanently working away from home. Additional cash is coming in by some prostitution in Sibu, or in two cases, in the village immediately. The remaining 16 households have had to postpone their "rising expectations" for the present.

School attendance of the lower grades is practically complete. Out of 38 children, 37 between the ages of 7 and 12 attend the local school. Four of the 16 youths between 13 and 18 years continue education. Illiteracy among adults is considerably less than in the Kejaman village, where there were ninety-five per cent who could neither read nor write. Here we have only fifty-five per cent, to be exact 67 out of 115 persons. As in most cases where there are schools, knowledge of English is remarkably good also with adults. School-going children speak it fluently and fairly accentless.

As with the whole life pattern, an enormous change has come about also with the population dynamics.

RUMAH NYALA - POPULATION, BIRTHS AND DEATHS 1960-1970

	absolute	. %
Population 1960	171	100.0
Births 1960-1970	59	34.6
Infant mortality, accidents	-	0.0 (!)
Other deaths	8	4.7 (1)
NATURAL INCREASE	51	29.8

A sharp decline of mortality to less than five persons per thousand annually is a lower rate than in fully developed industrial societies. This, of course, is only possible in a "youthful" population: indeed, infant and toddler mortality during the whole decade was nil, with the result that 48.7 per cent of the total population were under 18 years (against forty per cent in Rumah Kejaman Lasah where the birth rate was nearly twice as high!) Here natural increase in the dimension of roughly three per cent annually can already be called "explosive."

In contrast to this, migration movements are surprisingly weak.

RUMAH NYALA - POPULATION, IN- AND OUT-MIGRATION 1960-1970

	absolute	8
Population 1960	171	100.0
In-Migration 1960-1970	8	4.7
Out-Migration 1960-1970	6	3.5
MIGRATION GAIN	2	1.2

Marriages lead to a small migratory gain which, however, does not change the situation in any significant way. Moreover, the small figures neither reveal an attempted relief from local "over-population," nor seems the proximity of Sibu to cause a special attraction. But the slight disparity of sexes (117 females of all ages against 107 males, which corresponds to a proportion of 109:100) may indicate slow transformation from a rural settlement to an itinerant workers' village. The biggest attraction is the oil fields of Miri-Lutong, and there is hardly an airplane from Sibu to Miri not carrying some Iban laborers from the nearby communities.

In view of the local population growth - as it has resulted in a natural increase plus migratory gain of thirty-one per cent within ten years - contraceptive measures are, of course, of special interest. Sixteen out of 28 mothers consulted were already practicing contraception, three considered it desirable, and only the remainder of nine had no opinion. If this can be generalized - i.e. if knowledge and practice of contraceptive methods within and around larger centers already have a noticeable effect - there is some hope that public family-planning campaigns can close the gap between birth- and death-rates again, to which extent, however, the future will tell. It seems, at least, that there is no "ethno-cultural barrier" opposed to an "urban rationalization" of the size of families.

III. SYNTHESIS

The different characteristics of both settlements - Rumah Kejaman Lasah and Rumah Nyala - lead to the following conclusions.

Economically the former, being self-sufficient mainly by rotating *ladang* systems, keeps reaching into multiple tasks within the primary production sphere, whilst the latter withdrew to sawah-monoculture, strongly supported by secondary and tertiary activities. Systematic market-cropping exists in neither of the two local economies since the rubber gardens became unprofitable. Yet, through secondary and tertiary employment, monetary income is now an essential part of the economy of many households.

From the standpoint of organization this means a separation of household and working-place. The result is that while Rumah Kejaman Lasah still guarantees "over-employment" by combining several productive functions per head, Rumah Nyala undergoes a drastic shrinking of the employment volume because of disentanglement and one-sidedness of the economic functions. For the first time the risk of underemployment appears, intensified through "outside steering." This so much the more as structurally the longhouse becomes an anachronism under the new conditions. Whilst this type of settlement was perfectly suited to the old social and economic tasks, new functional orientations bear the risk of destruction of the traditional longhouse anatomy. Normal localization of trade or industries is following laws virtually uninfluenced by the longhouse. Consequently, typical symptoms as commuting and labor circulation are emerging.

As far as social development is concerned, there may be - linked with the tendency toward a marginal urban "worker's village" - tendencies toward proletarianization insofar as there is a withdrawal from self-subsistence. This does not necessarily mean economic or social descent and a slip-off into the slum. On the contrary, with higher incomes of households, depending on the number of people employed outside and on their specialization, there is a raise not only in consumptive demand but also in social prestige breaking the formerly equal levels of life. This means emancipation, at any rate for the moment, and the households following change slowest are participating least. Of course the present situation cannot prevent from future problems, but the problem of rising slums seems to come from another direction.

Doubtlessly the actual changes in population dynamics have far-reaching consequences. The old, intact longhouse community held a very perfect balance of fertility and mortality. Therefore, productivity below standard never was a problem of shifting cultivation. Today this can hardly be said about any place in Sarawak, at least for the long run. With regard to Rumah Kejaman Lasah neither fertility nor mortality are strikingly influenced by modern medicine, but pacification (and especially the abolition of headhunting) drove up natural increase near to the mark of two per cent annually. Regarding this, one might speak of "simple mortality reduction" - "combined (or double) mortality reduction" - which we saw in the other case, Rumah Nyala, effected by additional public health measures and medical care. The double effect would probably have caused an even higher growth rate were not contraception leading to a reduction of births. Housing conditions, however, will deteriorate last from population pressure. Longhouses were always arranged to suit large families. It is more likely that economic circumstances will decide the issue. On the other hand, economic and population problems are not easy to tell from each other. Until now any serious situation - caused by early pacification, that later upset the population balance, and eventually paralyzed shifting cultivation to a greater extent - the Iban met with emigration from their customary environment upriver. Only utmost economic tension could make them descend to the lowland and accept life in the Rejang delta. The next step will bring them into the urban scene.

One may regret such developments - the destruction of the demographic and economic balance by administrators, missionaries, doctors - as a fatal blow, apt to turn the old indigenous world upside down. But this should not be the place for evaluating; we have to take notice of facts. By European standards interference was factually and ethically necessary. It was not so for the people concerned. These were resisting first, then relieved and grateful, and finally their problems arose. Kipling called the responsibility for it "the white man's burden."

This burden cannot become any easier through present-day development concepts which exchange the standards and ideas of former colonial powers for the standards and ideas of industrial society in general. Theories sprouting from the latter often lead to the firm belief that "population explosion" in the Third World is caused by poverty. The contrary is true. Poverty has no absolute standards, at least it cannot be measured by the availability of industrial products or by industrial output. We come nearer to its essentials if we understand it as a limitation of life in the face of possible alternatives. Nobody will deny that in many parts of the world there are conditions really shortening life. If, however, expectancy of life was extended by reducing mortality in Sarawak or elsewhere, it was no limitation of life, primarily, but extension in the true sense of the word.

Yet at the same time - and only then - we perceive the beginning of a peculiar decay of those cultures fixed on high fertility and high mortality. It is the extension of individual life which sooner or later breaks the traditional life pattern as a whole. And instead of running its traditional cycles, "development" starts to follow a linear course, finally passing over to a "proletarian trend" that results in reduced human beings. Wherever in the Third World such chain-reactions set in, the statement can be reversed to: Poverty is a consequence of population explosion.

Simple life patterns have the advantage of depicting the essentials in a simple way. Thus longhouses being relatively uncomplicated systems are exceptionally informative. And here we could readily observe not Rumah Kejaman Lasah, our first example, with its comparatively modest population growth had structural problems, but the second, Rumah Nyala, with its full regenerative surplus.

Generalizations, in turn, have their disadvantages. But if we try to generalize at all, we must come to the conclusion that Third World "development" - unless it means willy-nilly "acculturation" - has to be handled as a demographic problem. Mere structural measures or even charitable efforts will be set at nought as long as this basic fact remains unheeded.

Notes

 The two wooden tomb poles erected about half a mile downstream, cut out of one trunk each, and more than 20 meters high, are unique in Sarawak as far as their ornamental workmanship is concerned. The layout is undoubtedly that for a big paramount chief. Even Hose and McDougall, who describe a series of remarkable tombs, present no parallel cases. See: Hose, C. and W. McDougall, <u>The Pagan Tribes of</u> Borneo, 2 vols., London 1912 (Reprint 1966), esp. vol. II, plates 152-55. Official exchange rate in 1970: M\$ 3 = US\$ 1.

3. To attempt an exact classification of age-groups would be of little use since the persons in question are in most cases unable to date their age or a past event precisely. Fortunately at the time of enquiry the 1960 Sarawak Census was almost exactly 10 years previous a remarkable event for the longhouse inhabitants. Therefore, any questions regarding births, deaths, and migrations before and after the census could be answered promptly as a rule. Under the said circumstances all data prior to 1970 are computed from a complete survey held two months after the 1970 census campaign.

-71-

BRIEF COMMUNICATIONS

The Rhinoceros - and Mammal Extinction in General

From Tom Harrisson

1

Extinction of mammal species by man is not new in Borneo. Homo sapiens is almost certainly responsible for the tapir and the tiger which are found among the stone-age food remains at Niah Caves but not in historic times, though both survive on other islands and the mainland (under threat the Bali Tiger may right now be extinct). A giant pangolin (Manis palaeojavanica), otherwise known from the Pleistocene fossil beds of Java, in association with early Homo erectus (Pithecanthropus), occurs as unfossilized food bone around the 30,000 B.C. mark at Niah too, but no later. Orangutan and rhino are also quite common there, and rhino horn was used as ritual pillow for at least one Niah neolithic cave burial; neither species now occur within 200 miles and both are on the grave danger list for the whole island.

The only rhino known in Borneo is the Sumatran or Two-horned, smallest of the species and uniquely a rain forest animal. The Borneo form is named by a German zoologist Dicerorhinus sumatrensis harrissoni, after yours sincerely, like whom it is in imminent danger of becoming extinct in the seventies. Borneo Research Bulletin has published previous references to this remarkable, harmless very shy creature. I saw one fleetingly on the overland crossing between the Bahau headwaters and the Apo Kayan, interior Kalimantan, in October 1945, and am perhaps the last non-native to have done so. Nearly all recent records have been sightings of footprints only, and all of them in the largely uninhabited Segama-Kinabatangan upriver areas of eastern Sabah. The horns and skin have retained their fantastic value with the Chinese as aphrodisiac, so that rhinos have been illegally hunted to death, mostly by far-ranging Iban and Kelabit-Muruts. There are probably not more than twenty (perhaps ten) left on the island; none in Sarawak and Brunei, just possibly one or two in Kalimantan; the rest in Sabah where, however, they are split up in very difficult terrain so that breeding contact is unnaturally difficult.

Other Sumatran rhinos are on Sumatra (perhaps thirty?) and on the mainland in Malaya (1974 enquiries in detail suggest less than twelve, mainly in the north), southern Thailand (a few accidently protected by Communist guerrillas), Burma (some, but the situation is unsure), and possibly in Indo-China (no recent information). There is still <u>no</u> effective conservation for them outside two national parks in Sumatra and Malaya - from which, however, they tend to roam, vulnerably.

The Survival Service Commission of the Internation Union for the Conservation of Nature' (I.U.C.N.) is deeply concerned with the Sumatran Rhino and is planning to redevelop conservation efforts for it. Latest information and signs of interest <u>inside</u> the relevant areas would be most helpful. Also any local stories, actual or folklore, on the rhino in the past anywhere in Borneo would be of great interest for past background. Anthropologists please note. Fortunately, a Dutch biology student, Kees Rookmaaker, at Amsterdam Free University has developed a passionate interest in the general literature of the Sumatran and Javan Rhinocerus. He is now making an effort to bring together all that is known on the species, as an aid to a conservation program. For hitherto efforts at conservation, notably in Sumatra and in Malaya, have been both costly and (for the Sumatran Rhino) conspicuously unsuccessful. The situation now becomes critical, and this must be regarded as among the most immediately threatened large animals on earth.

On Sumatra the problem for rhino and all life is the exceedingly high rate of jungle felling for timber during the seventies. This is also re-opening the threat to the orangutan, which in the sixties looked for a while to be safe again. Confined entirely to Sumatra and Borneo, the orang is again under increased pressure in Kalimantan, and best served through the efforts of the Game Warden's department and Mr. Stanley de Silva in Sabah. This work is far ahead of any other. Likewise, his major effort in saving the Turtle Islands off Sandakan is of world importance; the more so since effective conservation of Green Turtles elsewhere in the region is at a very low ebb right now.

Any points on any of these or related problems will be taken up promptly by the undersigned.

NEWS AND ANNOUNCEMENTS

Mervyn Aubrey Jaspan, 1926-1975. An Obituary

Professor Mervyn Jaspan died suddenly at Hull while still in the prime of early middle age, 26th April 1975. He was young in mind too, "full of beans" in the old English slang term, a restless, provocative, occasionally nearincoherent gad-fly.

The elegant memorial card sent out from the University of Hull bears a nice sketch drawing of "a traditional Rejang house." Clearly this is the Sumatran usage and the pleasant thatched hut has nothing to do with the greatest river of northwest Borneo. Jaspan will be remembered primarily for his enormous and enormously competent fieldwork-publications on Sumatra, and for founding and running the Southeast Asia research project at Hull.

The Hull project has proved to be the most enduring and effective in Britain, though on a far more modest scale than in some American parallels or the Kyoto one which I reported in an earlier <u>Bulletin</u>. It has experienced teething and breathing troubles, some of them directly stemming from Mervyn's own mercurial personality. Mercury can be poisonous if used carelessly. But though others sometimes found it hard to deal with (or for) him on any basis of long-term stability, these qualities were essential in getting new things done and a unit moving. It is profoundly to be hoped that the project will survive his death, recent re-arrangements inside the University and the chronic shortage of British educational finance. Among other things, the group has sent an outstanding fieldworker, Victor King, to study the Malohs in southern Kalimantan. Dr. Jaspan got directly interested in Borneo when he came, as a guest of the Sarawak Museum, to Kuching in the sixties. We worked together on the Iban and other writing boards (published in the first Special Monograph of <u>Sarawak Museum Journal</u> as Volume XIII/27 of 1966, with Benedict Sandin, Erik Jensen, Bishop A.D. Galvin, Professor Juan Francisco from Manila, Al Hudson and this writer; see also "Borneo Writing" in <u>Bijdragen</u>, [Hague], 121, 1965: 1-56). He detected definite parallels with some of the Batak "idiographic" script which had been one of his won special studies, and from there traced out links, albeit uncertain, to the early Indian scripts and not at all to the Chinese. These results have encouraged me to follow the writing trail eastward as far as Easter Island. Shortly before his death we were planning to get together again and finalize our findings, however tentative, based on our pooled comparisons. Alas, this cannot now be done. I do not know enough to go it alone.

During his stay in Sarawak we asked him as routine for a government guest to keep out (in public) of local politics, at that time in a rather tense state. He courteously agreed. My peace of mind - never very deep in the constant frictions of Southeast Asia in the sixties - was harshly disturbed by a phone call from the Chief Secretary before office hours are maturing. "Have you seen this morning's Tribune?" "Not yet." "Your friend Jaspan has been hitting the headlines, VERY unhelpfully...." Sure enough, Mervyn had taken part in a leftist political meeting the previous evening, without telling any of us. The Secretariat wanted to throw him out - not the first researcher to suffer this stupid fate over the Borneo years (one American, one Australian, one French, one Danish, and one Chinese). Reason prevailed. But I shall not easily forget the long, long argument in which Mervyn explained that he had to break his word because a matter of principle political freedom - was at stake. He won the argument by his tireless semantic elaboration, rationalizing ego into ethics. He was a great man for the word games.

But he was a "great man," as well, in a medium way. One has to take such fellows with the raw and the smooth, the genial with the sly, the generous with the grasping, the genuine with the tricky. The social sciences in Borneo very rarely attract <u>nice</u> men, as compared with botanists (sweet but dull), zoologists (jolly but tiring), geologists (solid and sensible), and historians (sometimes just like normal ordinary human beings). We had them all in and through the Sarawak Museum, and no doubt Lucas Chin still does. In my twenty plus years, Mervyn Jaspan was outstandingly one of the most intelligent, stimulating and incisive. His early death is a loss both to the region and to the discipline. (From: Tom Harrisson, 45 Avenue Lancaster, 1180 Brussels.)

Doctoral Dissertations on Asia: An Annotated Bibliographical Journal of Current_International Research

Published on behalf of the Association for Asian Studies (AAS) by Xerox University Microfilms, <u>Doctoral Dissertations on Asia</u> is a semiannual journal designed to provide up-to-date information for recently completed and inprogress dissertations dealing with East, Southeast and South Asia. AAS members should expect to receive the journal's first issue (Winter 1975) automatically. Other individuals interested in receiving copies free of charge may have their names placed on the distribution mailing list by writing:

> Literature Service Department Xerox University Microfilms 300 North Zeeb Road Ann Arbor, Michigan 48106 U.S.A.

The editor has included a questionnaire in the Winter issue and is most anxious to receive readers' reactions and suggestions for developing the periodical along lines particularly appropriate to their needs. Further information may be obtained from the editor, Frank Joseph Shulman, at the Center for Japanese Studies, The University of Michigan, 108 Lane Hall, Ann Arbor, Michigan 48104 U.S.A.

BORNEO NEWS

Regional News

TOM HARRISSON has completed a new survey of areal knowledge on the Early Stone Age, with special reference to Borneo, Celebes and peninsular Malaya, to be presented to the IXth Congress of Prehistorians at Nice next year when the Harrissons also hope to entertain all archaeologist friends from the region in their pad at Cannes. Harrisson has also co-authored, with <u>HUMPHREY SPENDER</u>, an album, <u>Britain in the 30s</u>, based on the Mass-Observation Archive at the University of Sussex. Published in June 1975 in a limited edition by the Unicorn Press at the Royal College of Arts, a popular version is planned, produced by Thames and Hudson probably next year.

Brunei News

PENGIRAN P.M. SHARIFFUDDIN, Director of the Brunei Museum, recently expanded his responsibilities to include a concern for the development of traditional arts and crafts. Weaving of ceremonial sarong cloth and metal work, both in silver and brass, are mainly relevant. Classes which employ the few masters of these crafts who maintain traditional knowledge as teachers, are scheduled for August. Interest among young Bruneis for these is very high. BARBARA HARRISSON continues her field studies, supported by the J.D. Rockefeller 3rd Foundation of New York and the Brunei Museum. Her 10.0. thesis will describe and classify stoneware jars imported over ten centuries from the Asian mainland in Borneo. It will base of the archaeological and ethnographic collections of sherds and jars in the Brunei Museum.

The R/V ALPHA HELIX, a national facility of the University-National Oceanographic Laboratory System in the U.S., cruised in north Bornean waters during June and July 1975. After a brief stop in Tawau, this splendidly equipped biological research vessel with twelve scientists on board, visited Brunei Bay. Asked to supply brief summaries of the various interests involved, the scientists responded to Barbara Harrisson as below: JOHN F. ANDERSON (University of Florida, Gainesville): study of the rates of oxygen consumption in a unique group of spiders belonging to the genus Siphistius. Comparisons will be made between cave and non cave-dwelling forms.

BRIAN K. MCNAH (University of Florida, Gainesville): study of the temperature regulation and energy expenditure of certain Bornean mammals, especially flying lemurs, moon-rats, pangolin and bats. These species will be compared with related species in other (tropical and temperate) regions and with unrelated species having similar habits.

NICHOLAS MROSOVSKY (University of Toronto, Canada): A study of the physiology and behavior of sea turtles.

WALTER GAREY (Scripps Institution of Oceanography, University of California, La Jolla); study of the oxygen transport systems of air-adapted fishes and mammals of Borneo. Particular attention will be paid to the characteristics of the oxygen loading and unloading of the red blood cells.

VAUGHAN SHOEMAKER (University of California, Riverside), and LON McCLANAHAN (California State University, Fullerton): studies of water balance and nitrogen metabolism in frogs. Of particular interest are arboreal and fossorial species which can be compared with forms from arid climates. <u>STEWART WOLF</u> (University of Texas, Galveston), and <u>THOMAS WOLF</u> (Boston University): study of rural health patterns as they relate to rapid social change consequent upon the modern medical services that have become available as well as evolving technological developments. Studies of other social groups and peoples have shown a change in the patterns of prevalence of certain diseases in association with cultural change.

FRANK G. NORDLIE (University of Florida, Gainesville): studies of ionic and osmotic regulatory patterns, and the metabolic costs of this regulation, in brackish water fishes.

JOHN REISKIND (University of Florida, Gainesville): studies of the behavioral and ecological adaptations of ant mimicking spiders and the ecology of relationships between spiders and the ants they mimic; courtship behavior of jumping spiders and the ecology of spider-plant associations. WESLEY W. WEATHERS (Rutgers University, New Brunswick), and <u>GREGORY K.</u> SNYDER (University of California, Riverside): the mouse deer has the distinction of possessing the smallest known red blood cells of any animal. Since red blood cell size and shape may influence heart function and the transport of oxygen by the blood to the bodies' cells, studies of the circulation of mouse deers can contribute to the extension of knowledge. These and other biologists who participate in <u>ALPHA HELIX</u> expeditions are relatively independent because major parts of studies take place right on board where an array of sophisticated instruments serve. The main requirements for outside assistance are related to permission by host countries to remain in territorial waters and collect specimens, and to guidance in identifying and working over collecting areas.

The ship's funding, operation and logistical services are carried by the National Science Foundation and the Scripps Institution of Oceanography in the U.S. Applications to participate in expeditions are solicited and become processed through the <u>ALPHA HELIX</u> Review Committee. Considerable advance planning is necessary. The geographical areas of operations over the next two years will be tropical American coastal regimes, including the Galapagos Islands and the Amazon River. Enquiries through: <u>Dr. Walter Garey</u>, Alpha Helix Program Manager, A-0041 Scripps Institution of Oceanography, Box 1529, La Jolla, California 92037 U.S.A.

Kalimantan News

<u>PHILIP GOLDMAN</u> of Gallery 43, at 28, Davies Street, London Wl (just off Berkeley Square) has on long-term exhibition a remarkable collection of wood carvings, especially small talismens, from Ngaju and other Kalimantan inland peoples. Many are of finest quality, unequalled in museum collections (which outside Holland are poor on Indonesian Borneo artifacts). A beautifully illustrated and arranged catalogue, by Dr. Goldman, entitled <u>The Divine Gifts</u>, is scholarly, well referenced and with new ideas on Borneo art-form and meaning. Tom Harrisson has done a critical review for the next issue of RAIN, the Royal Anthropological Institute's newsletter.

At the end of May 1975 <u>BARITA OLOAN MANULAN</u> and <u>YATNA SUPRIATNA</u>, biology students from the Universitas Nasional in Jakarta, joined the Orangutan Project (Tanjung Puting Reserve, Kalimantan Tengah) in the capacity of research assistants to Ms. Birute Galdikas-Brindamour. They will conduct research on the red leaf-eating monkeys of the study area for the next six months.

SUGARDJITO and ENDANG SOEKARA, also of the Universitas Nasional, returned to Jakarta in June after carrying out an in-depth survey of the gibbons and red leaf-eating monkeys in the study area.

Sarawak News

DR. GALE DIXON, Department of Geography, Monash University, Australia, is planning to spend the spring semester 1976 at the University of British Columbia.

BIBLIOGRAPHY

BOOK REVIEWS

Tom Harrisson: "Prehistoric Wood from Brunei, Borneo," Monograph No. 2 of the <u>Brunei Museum Journal</u> (67 pp. text; 69 pp. line drawings; 33 pp. photographic plates).

The second monograph of the <u>Brunei Museum Journal</u> entitled, "Prehistoric Wood from Brunei, Borneo," by Tom Harrisson, is a first in Southeast Asian archaeology. It deals with vegetable materials which normally perish in prehistoric sites. But remarkable preservation occurred at Kota Batu, owing to a combination of acid, peaty soils which "pickled" the wood and a high water-table which produced fair percolation.

Kota Batu, known as a center of Islamic authority during the fifteenth and sixteenth centuries, saw trial excavations during 1952-53. These established a considerable archaeological potential which has not been further tapped. The present monograph resulted from specialized studies of all vegetable materials recovered in these early days. Harrisson divided them into four major classes: Tree Wood, Coconut, Other Nut and Charcoal.

Twenty-three C-14 dates relative of horizons below 24 and above 90 inches provided a frame of time ranging from 12,500 B.C. to 1850 A.D. Clearly, there was much mobility of artifacts underground: six samples from the 24-30 inch strata dated between 1300 A.D. and 1850 A.D. Two taken from 36-42 inches by comparison, quoted 950 A.D. and 12,500 B.C. But of seventeen samples taken below 30 inches, only three dated later than 1100 A.D. and two earlier than 595 A.D. This fair emphasis of human involvement prior to 1100 A.D. is of great interest in view of the uncertain early history of the site. Unfortunately the details which Harrisson provides relative of absolute excavation depth have only limited merit, under the circumstances.

The artifacts are described in seven categories according to function. Of special interest is apparatus for spinning and weaving, as well as trays, bowls and covers, mainly because these can be recognized and substantiated in Brunei as traditional technology and craft. This point is usefully strengthened in an Appendix discussion of the Museum's collections of wooden artifacts.

Harrisson was able to enlist much local expertise, specially from forestry, in identifying fourteen families of trees from which Tree Wood originated and in informing on the specific properties which made them useful above other woods. Native knowhow is also reflected in the discussion of Coconuts which refer to local varieties and distribution patterns of this important palm prior to the 1830s, as well as the universal purposes its hard nut acquired on Bornean coasts, including in games. Four other nuts had much less impact. The discussion of Dammar's complexities, of the trees it may refer to and of local practice which grades by color, is valuable owing to the importance of this material until recently, and timely, because knowledge about it is rapidly lost. But quantification of it and Charcoal subsequently, by numbers of fragments is less redeeming.

The main text is accompanied by clear and skillful line-drawings by Museum artist Awang Wahib bin Hussain. Four Appendices are handy references. They have checklists of the trees involved, of geological test-bores which established water-tables and of radio-carbon dates; finally a discussion of wooden Museum artifacts, as already mentioned. As most Harrissonia, the monograph makes stimulating reading, particularly if one fishes for ideas regarding the fundamental properties of a vanishing natural resource, and the simple challenges it presented to the human mind from prehistory right into the recent past. (Barbara Harrisson, Brunei Museum)

Michael and Patricia Fogden: <u>Animals and their Colours</u>. London: Peter Lowe. 168 pp; illustrations. <u>b3.50. 1974</u>. H. Elliott McClure: <u>Migration and Survival of the Birds of Asia</u>. Bangkok: S.E.A.T.O. Medical Project. 470 pp; many maps and tables. 1974.

Michael Fogden did the research for his Oxford doctoral thesis at the Semengok forest reserve near Kuching, attached to the Sarawak Museum in the sixties. Mrs. Fogden, also a Doctor (in biology), then Patricia Aldridge, worked on the Niah Cave batbone remains. Both published some of their work in the <u>Sarawak Museum Journal</u>. They have now produced a handsome book, largely illustrated with their own beautiful color photos (especially good on insects, nearly all taken in Sarawak).

The main themes of <u>Animals and their Colours</u> are camouflage, mimicry, disguise and self-protection of species, from man and tiger to ant and caterpillar. One notices a minor mistake with ants, however: on page lll, *Campanotus* is said to be mimicked by spiders, because it is <u>not</u> a popular bird food. But at Niah Caves, this forest ant is commonly found in the stomachs of the millions of birds-nest swiftlets (*Collocalia*) there.

This is, overall, a readable introduction to a fascinating subject. Drs. Fogden are to be congratulated on deploying their tropical and other knowledge with good effect. The result is both a serious, informative volume and pleasant gift-book as well.

Quite different in scope but related in origins is the impressive, massive compilation on bird migration in the Far East generally and Southeast Asia especially. Colonel Dr. McClure initiated, organized, and supervised MAPS, an Asian-wide system of marking birds with numbered rings. Michael Fogden, Ambrose Achong, Lucas Chin, Gaun anak Sarang and your reviewer were responsible for Sarawak, as part of a network of ringers reaching from Korea and Japan to Bogor and Bombay, and also covering Sabah, the Philippines, Malaya and much more.

The results of this effort, coordinated through SEATO at Bangkok, gives a mass of new and interesting information for the area. McClure and MAPS have done a tremendous job in compiling and presenting the returns from 1,165,288 birds of 1,218 species marked. Six thousand nine hundred eighty-five birds were ringed in Sarawak (1964-68) and about the same in Sabah. Results, from the recovered rings, were reported from all over the continent except, alas, the People's Republic of China, which Dr. McClure calls "the Great Void of this study" (p. 19). Thailand shows a poor recovery ratio, despite the project H.Q. there. Superstition, of a special sort, proved to be largely responsible (p. 23). The average Thai considered the discovery of a bird bearing a numbered ring to be a gift of foresight. He at once went and bought a lottery ticket with that number; and must not show it to anyone thereafter. Professional birdtrappers were encountered with "lists in a little notebook of the last three numbers (only) from birds they caught." So, from 175,000 Thai ringing, came only 50 recoveries.

Despite these and many other difficulties, over 6,000 rings from 255 species were correctly reported. In addition, 26,306 individual birds were recaptured as repeats in the mistnets used by the ringers or other trappers. Every one of these is listed, systematically, in this book. The movement patterns are shown on figures and maps - 249 of them. And poor Thailand produced one of the most remarkable recoveries, a Yellowbreasted Bunting ringed at Oulu, Finland in 1966 and taken some three years later from a wintering flock near Phitsanloke. (The ring was not discovered until 1972, saved by a farmer, superstitious.) Migration and Survival is a treasure-store for the naturalist. The data therein gives the first clear picture of Asian bird mobility. It is a striking picture, filled in by the effort primarily of Asian museum and university naturalists. MAPS has wound down, the peak is past. That is a pity. But at least we have a working plan for present understanding as well as hopefully - a blueprint on which to base future further study, when times permit. (Tom Harrisson, University of Sussex)

ABSTRACTS

MALAYSIA: Search for National Unity and Economic Growth

Sevinc Carlson, Sage Publications, forthcoming summer 1975, \$3.00

Because of the basic stability and resilience of its political system and the favorable resource position of its economy, Malaysia is emerging as an important country in Southeast Asia. Thus declares this paper, an assessment of Malay status in light of such problems as communal antagonism, political authoritarianism, and unemployment.

The Cession of Sarawak to the British Crown in 1946

Robert Harold William Reece, Ph.D. Dissertation, Australian National University, 1976.

The thesis examines increasing British interest in controlling the internal affairs of Sarawak in the period immediately prior to World War II, culminating in the cession negotiations between the Rajah and the Colonial Office in 1945-46. The dynastic side of the story (i.e. the dispute over the succession to the Raj) is also dealt with and the latter part of the thesis is concerned with the impact of cession in Sarawak and the origins of the indigenous anti-cession struggle up to the end of 1946

Kenyah Dance, Sarawak, Malaysia: A Description and Analysis

Joan DeWitt Seeler, M.A. Thesis, University of Hawaii, Manoa, 1975.

Dance of the Kenyah people, formerly ritual and non-ritual, now primarily hospitality, is an integral part of Kenyah life. The Kenyah are introduced; geography, immigration, social structure, and religion described. Description of dance includes: 1) a typical evening of dance on a longhouse veranda; 2) performance and history of major dance genres (*Badek Tiang*, *Datun, Saga*, pantomime, *Makoi, Ketchok*, and *Lupa*); 3) clothing and props and their iconography; 4) music (instruments - sape, enkluri, guitar, and harmonica - genres, notation of extracts); followed by a discussion of the changing setting. Dances are spontaneously choreographed from an inventory of Kenyah dance movement. An analysis of dance categorizes movement components of gross body parts (legs, arms, torso, and head). Representative movement sequences by genre are labanotated. A glossary is included.

BIBLIOGRAPHY

 Garang, Johannes Enos, 1974, German: Adat and Society: A Socio-Ethnological Inquiry into [the Description of] the Intellectual and Cultural Life of the Dayak in Kalimantan. Wiesbaden, Germany: Steiner.
 Kiu, Mee Kuok, 1972, Diffusion of Foochow Settlement in Sibu-Binatang Area, <u>Central Sarawak, 1901-1970</u>. M.A. thesis, University of Hawaii.
 Reynolds, John Keith, 1970, Towards an Account of Sulu and Its Borneo <u>Dependencies, 1700-1878</u>. M.A. thesis, University of Wisconsin, Madison. THE BORNEO RESEARCH COUNCIL (cont. from page 2)

Support for the activities of the Council comes from subscriptions to the <u>Borneo Research Bulletin</u>, Fellowship fees, and contributions. Contributions have played a significant part in the support of the Council, and they are always welcome.

Fellows of the Borneo Research Council

The privileges of Fellows include (1) participation in the organization and activities of the Council; (2) right to form committees of Fellows to deal with special research problems or interests; (3) support of the Council's program of furthering research in the social, biological, and medical sciences in Borneo; (4) subscription to the Borneo Research Bulletin.

The Fellows of the Council serve as a pool of knowledge and expertise on Borneo matters which may be drawn upon to deal with specific problems both in the field of research and in the practical application of scientific knowledge.

Fellowship in the Council is by invitation, and enquiries are welcomed in this regard.

INFORMATION FOR AUTHORS

Research Notes: These should be concerned with a summary of research on a particular subject or geographical area; the results of recent research; a review of the literature; analyses of state of research; and so forth. Research Notes differ from other contributions in that the material covered should be based on original research or the use of judgement, experience and personal knowledge on the part of the author in the preparation of the material so that an original conclusion is reached.

<u>Brief Communications</u>: These differ from the foregoing in that no original conclusions are drawn nor any data included based on original research. They also differ in consisting primarily of a statement of research intentions or a summary of news, either derived from private sources or summarized from items appearing in other places that may not be readily accessible to the readers of the <u>Bulletin</u> but which have an interest and relevance for them. They will be included with the contributor's name in parentheses following the item to indicate the source. Summaries of news longer than one or two paragraphs will appear with the contributor's name under the title and prefaced by "From."

Bibliographic Section: A bibliography of recent publications will appear in each issue of the <u>Bulletin</u>, and, consequently, reprints or other notices of recent publications would be gratefully received by the Editor. All contributions should be sent to the Editor, <u>Borneo Research Bulletin</u>, c/o Department of Anthropology, College of William and Mary, Williamsburg, Virginia 23185, U.S.A.

STYLE FOR CONTRIBUTIONS

Please submit all contributions double-spaced. Research Notes and Brief Communications should be limited to approximately eight double-spaced pages. Footnotes are to be avoided wherever possible. Bibliographies should be listed alphabetically by author at the end of contributions; author should appear on a separate line, then date, title of article, journal, volume, number, and pages. For books include place of publication and finally publisher. References in the body of contributions should be cited by author's last name, date, and page numbers as follows: (Smith 1950: 36-41). For punctuation and capitalization refer to Bibliographic Section.

Names mentioned in the News Section and other uncredited contributions will be capitalized and underlined.

BORNEO RESEARCH COUNCIL FELLOWS

Mr. Ja'Achmad Kepala Kantor Pembinaan Permuseuman Departemen Pendidikan Dan Kebudajaan Perwakilan Propinsi Pontianak, Kalimantan Barat INDONESIA

Dr. Saleh Afif Bappenas Djakarta, INDONESIA

Mr. Lon Alterman Mrs. Rhea-Beth Alterman Department of Anthropology New York University New York, New York 10003 U.S.A.

Mr. J. P. Andriesse Department of Agricultural Research Royal Tropical Institute Mauritskade 63 Amsterdam, NETHERLANDS

Dr. George N. Appell Phillips, Maine 04966 U.S.A.

Ir. Hidajat Ardiwinata Fakultas Pertanian Universitas Tandjungpura Djl. Imam Bondjol Pontianak, Kalimantan Barat INDONESIA

Drs. J. B. Avé Rijksmuseum v. Volkenkunde Postbus 212 Leiden, NETHERLANDS

Ir. Amin Aziz Social Economics Department Institute Pertanian Bogor Bogor, INDONESIA Mr. Tim G. Babcock Department of Anthropology Cornell University Ithaca, New York 14853 U.S.A.

Rev. Martin Baier 746 Balingen Marienburger Strasse 5 WEST GERMANY

Mr. Paul Beavitt Department of Sociology University of Leicester Leicester LE1 7RH ENGLAND

Mr. Stanley S. Bedlington Department of Political Science Cornell University Ithaca, New York 14850 U.S.A.

Mr. E. J. H. Berwick 7 Grove Side Great Bookham Surrey KT23 4LD ENGLAND

Dr. L.D. Black School of History University of New South Wales P.O. Box 1 Kensington 2033, N.S.W. AUSTRALIA

Mr. Robert A. Blust 1735 Dole Street, Apt. 208 890 East-West Road Honolulu, Hawaii 96822 U.S.A.

Drs. Richard Brooks Department of Anthropology University of Nevada – Las Vegas Las Vegas, Nevada 89109 U.S.A. Dr. Donald Brown Department of Anthropology University of California Santa Barbara, California 93106 U.S.A.

Dr. and Mrs. P. A. Burrough School of Geography University of New South Wales P. O. Box 1 Kensington, N. S. W. 2003 AUSTRALIA

Dr. Eric Casino c/o International School P.O. Box 323 Commercial Center D-708 Maliati, Rizal PHILIPPINES

Mr. Mathew Charles 920 North Aurora Street Ithaca, New York 14850 U.S.A.

Rev. Warren Chastain Trunojojo 32 Bandung INDONESIA

Mrs. Warren Chastain 2850 Forest Street Denver, Colorado 80207 U.S.A.

Mr. Chin Kwet Hon Department of Sociology University of Singapore Bukit Timah Road SINGAPORE 10

Mr. Lucas Chin Curator Sarawak Museum Kuching, Sarawak MALAYSIA Mr. Michael Chong Sabah Museum Kota Kinabalu Sabah, MALAYSIA

Mr. and Mrs. Iain F.C.S. Clayre Department of Linguistics University of Edinburgh Adam Ferguson Building George Square Edinburgh 8, SCOTLAND

Mr. P.F. Cockburn Forest Department P.O. Box 1407 Sandakan Sabah, MALAYSIA

Mr. J.D. Cole 50 Victoria Road Kensington London W.8, ENGLAND

Mr. William L. Collier Ford Foundation (Indonesia) 320 E. 43rd Street New York, New York 10017. U.S.A.

Mr. J. B. Comber c/o CIBA/Agrochemicals/GEIGY P. O. Box 259 Djakarta, INDONESIA

Rev. William W. Conley Department of Missions and Anthropology St. Paul Bible College Bible College, Minnesota 55375 U.S.A.

Mr. Frank Cooley 5422 Liberty Road South Salem, Oregon 97302 U.S.A. -85-

Mr. and Mrs. Harold J. Coolidge 38 Standley Street Beverly, Massachusetts 01915 U.S.A.

Prof. E, J. H. Corner 91 Hinron Way Great Shelford Cambridge CB2 5AH UNITED KINGDOM

Dr. Conrad P. Cotter Department of Political Science Pensacola Junior College Pensacola, Florida 32504 U.S.A.

Mr. and Mrs. Christopher A. F. Court P. O. Box 20 Pattani, THAILAND

Dr. and Mrs. Jay B. Crain Department of Anthropology California State University 3050 Notre Dame Drive Sacramento, California 95826 U.S.A.

Dr. Colin Crisswell B3 Clearwater Bay Estate New Territories HONG KONG

Mr. James Deegan Box 221 Idaho State University Pocatello, Idaho 83201 U.S.A.

Mr. G.S. de Silva Forest Department P.O. Box 311 Sandakan, Sabah MALAYSIA

Dr. Gale Dixon Geography Department Monash University Clayton, Victoria 3168 AUSTRALIA Dr. Otto C. Doering III Department of Agricultural Economics Purdue University West Lafayette, Indiana 47907 U.S.A.

Mr. Richard Allen Drake 528 Beech Street East Lansing, Michigan 48823 U.S.A.

Dr. Frederick L. Dunn Department of International Health University of California San Francisco, California 94143 U.S.A.

Prof. John Echols Southeast Asia Program 108 Franklin Hall Cornell University Ithaca, New York 14850 U.S.A.

Dr. Fred Eggan Department of Anthropology University of Chicago 1126 East 59th Street Chicago, Illinois 60637 U.S.A.

Mr. Alfredo E. Evangelista Department of Anthropology University of the Philippines Faculty Center Diliman, Quezon City PHILIPPINES

Dr. Richard C. Fidler Department of Anthropology Northern Arizona University Flagstaff, Arizona 86001 U.S.A.

Dr. David Fortier 1070 Bay Road Amherst, Massachusetts 01002 U.S.A.

Dr. John E. D. Fox Department of Biology Western Australian Institute of Technology Prof. J. D. Freeman Anthropology Department Research School of Pacific Studies Australian National University Canberra A. C. T. AUSTRALIA

Rt. Rev. Anthony D. Galvin Vicariate Apostolic Bishop's House P. O. Box 108 Miri, Sarawak, MALAYSIA

Prof. W.R. Geddes Department of Anthropology University of Sydney Sydney, N.S.W. 2006 AUSTRALIA

Dr. William Geoghegan Department of Anthropology University of California Berkeley, California 94720 U.S.A.

Dr. Peter Goethals c/o Langlas 324 Kaumana Drive Hilo, Hawaii 96720 U.S.A.

Mr. Philip Goldman Kenwood House 30 Cyprus Road, Finchley London N3, ENGLAND

Prof. Jack Golson Department of Prehistory Research School of Pacific Studies Australian National University Canberra, AUSTRALIA 2600

Dr. Peter G. Gowing Dansalan Research Center P.O. Box 5430 Higan City 8801 PHILIPPINES Mr. George Grantham 335 NW 79th Street Seattle, Washington 98107 U.S.A.

Ir. Bouwe G. Grijpstra "de Leeuwenborch" Hollandseweg l Wageningen NETHERLANDS

Mr. Jeremy St. John Groome Brunei Shell Petroleum Co. Ltd. Seria BRUNEI

Dr. Sin-Fong Han Department of Geography California State University 5151 State University Drive Los Angeles, California 91754 U.S.A.

Dr. Robert Harrison Department of Anthropology University of Wisconsin Milwaukee, Wisconsin 53201

Mrs Barbara Harrisson Southeast Asia Program 120 Uris Hall Cornell University Ithaca. New York 14850 U.S.A.

Prof. Tom Harrisson 45 Avenue Lancaster 1180 Bruxelles BELGIUM

Mr. A, J. Hepburn L. C. C. Project Agriculture Department Kota Kinabalu Sabah, MALAYSIA

-86-

-87-

Mr. Omar O. Hidajat Lembaga Pusta Penelitian Pertanian Perwakilan Kalimantan Djl. MajDjen. D. I. Pandjaitan 21 Bandjarmasin, INDONESIA

Dr. David A. Horr Department of Anthropology Brandeis University Waltham, Massachusetts 02154 U.S.A.

Dr. and Mrs. Alfred Hudson Department of Anthropology University of Massachusetts Amherst, Massachusetts 01002 U.S.A.

Dr. Robert Inger Assistant Director Science and Education Field Museum of Natural History Roosevelt Road at Lake Shore Drive Chicago, Illinois 60605 U.S.A.

Dr. Erik Jensen Office of the Director-General Palais des Nations United Nations Ch-1211 Geneva 10 SWITZERLAND

Dr. D. C. Johnston Department of Geography University of Canterbury Christchurch 1 NEW ZEALAND

Mr. Tuton Kaboy Research Assistant Sarawak Museum Kuching, Sarawak MALAYSIA

Dr. George Kahin Southeast Asia Program Cornell University Ithaca, New York 14850 Mr. Peter M. Kedit Department of Anthropology and Sociology University of Queensland St. Lucia, Brisbane, 4067 AUSTRALIA

Prof. Thomas M. Kiefer Department of Anthropology Brown University Providence, Rhode Island 02912 U. S. A.

Miss Linda Kimball 542 Acorn Drive Dayton, Ohio 45419 U.S.A.

Mr. Victor T. King
Department of Southeast Asian Studies
University of Hull
Hull HU6 7RX, ENGLAND

Prof. Koentjaraningrat Djl. Pegangsaan Timur 42 Djakarta, INDONESIA

Mr. Jonathan H. Kress Department of Anthropology Duke University Durnam, North Carolina 27706 U.S.A.

Dr. Dietrich Kuhne D 4400 Münster/Westf. Flandernstr, 23 WEST GERMANY

Mr. Donald H. Lambert Department of Anthropolc3y University of California Berkeley, California 94720 U.S.A.

Dr. John L. Landgraf 2423 Eye Street, N. W. Washington, D. C. 20037 U.S.A. Dr. Matthias Laubscher Völkerkundliches Institut der University Tübingen D-74 Tübingen Schloss, WEST GERMANY

Dr. E. R. Leach Provost King's College Cambridge, ENGLAND

Datuk Stephen D. Lee P. G. D. K. Curator, Sabah Museum Kota Kinabalu Sabah, EAST MALAYSIA

Prof. Yong Leng Lee Department of Geography University of Singapore Cluny Road SINGAPORE 10

Dr. Michael Leigh Waterfall N.S.W. AUSTRALIA 2507

Mr. K. M. Leong Geological Survey Office Kota Kinabalu Sabah, MALAYSIA

Mr. Liew That Chim Forest Research Branch P. O. Box 1407 Sandakan Sabah, MALAYSIA

Mr. Lim Jock Seng Assistant Curator Brunei Museum Bandar Seri Begawan BRUNEI

Mr. Craig A. Lockard 782 Potomac Avenue Buffalo, New York 14209 U.S.A. Mr. Loh Chee-Seng 124 Jalan Gasing Petaling Jaya, MALAYSIA

Dr. Wolfgang Marschall Volkenkundliches Institut Schloss, 74 Tubingen WEST GERMANY

Mr. Allen R. Maxwell Department of Anthropology University of Alabama P. O. Box 6135 University, Alabama 35486 U. S. A.

Mr. David W. McCredie P.O. Box 1610 Kota Kinabalu Sabah, MALAYSIA

Mrs. Mary McDonald Kent College Tuaran, Sabah MALAYSIA

Mr. Robert McKinley Anthropology Department Michigan State University East Lansing, Michigan 48823

Lord Medway Great Glomham House Saxmundham, Suffolk IP17 ILP, ENGLAND

Mr. Peter Metcalf 3 Sacramento Street Cambridge, Massachusetts 02138 U.S.A.

Dr. H.S. Morris Department of Anthropology London School of Economics Houghton Street Aldwych, London WC2 ENGLAND

-88-

Dr. Rodney Needham Institute of Social Anthropology University of Oxford Oxford, ENGLAND

Mr. and Mrs. B. Neufeld Box 8, R. R. 1 Westbank, British Columbia CANADA V0H 2A0

Hr. og Fr. Johannes Nicolaisen Borgmester Godskesenes Plads 4 2000 Copenhagen F DENMARK

Mr. Robert Nicholl P. O. Box 1653 Bandar Seri Begawan STATE OF BRUNEI

Carsten and Ingeborg Niemitz Anatomisches Institut 34 Gottingen Kreuzbergring 36 WEST GERMANY

Miss Lily Nikulina Otradnaya 9, kw 18 Odessa 12, U.S.S.R.

Dr. H. Arlo Nimmo Department of Anthropology California State College 25800 Hillary Street Hayward, California 94542 U. S. A.

Prof. Stanley J. O'Connor Art History Department Goldwin Smith Hall Cornell University Ithaca, New York 14850 U.S.A.

Dr. Asmah Haii Omar Department of Malay Studies University of Malaya Lembah Pantai Kuala Lumpur, MALAYSIA Prof. Taib bin Osman, Chairman Department of Malay Studies University of Malaya Pantai Valley Kuala Lumpur, MALAYSIA

Dr. Atje Partadiredja Fakultas Ekonomi Universitas Gajah Mada Bulaksumur, Yogyakarta INDONESIA

Mr. Roger D. Peranio Department of Anthropology Lehman College, CUNY Bedford Park Boulevard West Bronx, New York 10468 U.S.A.

Mr. Michael Pike, Esq. Sabah Museum P.O. Box 1239 Kota Kinabalu Sabah, MALAYSIA

Dr. D.A. Pocock 33 Hynes Road Dalkeith, W. Australia AUSTRALIA

Mr. Robert M. Pringle American Embassy Manila - Pol. APO San Francisco California 96528, U.S.A.

Mr. A. J. N. Richards Centre of South Asia Studies University of Cambridge Laundress Lane Cambridge CB2 ISD, ENGLAND

Rev. Gerard Rixhon, Director Coordinated Investigation of Sulu Culture Jolo, Sulu PHILIPPINES N-103 Mr. John F. Robertson P.O. Box 1147 Gosford South 2250 N.S.W., AUSTRALIA

Dr. Peter S. Rodman Department of Anthropology University of California Davis, California 95616 U.S.A.

-90-

Mrs. Margaret Roff Apt. 4B, 456 Riverside Drive New York, New York 10027 U.S.A.

Dr. Jerome Rousseau Department of Anthropology McGill University P.O. Box 6070 Montreal H3C 3G1, CANADA

Miss Carol Rubenstein 75-36 Bell Boulevard Bayside, Long Island New York 11364 U.S.A.

Rev. R. R. Rudes Djl. Gunung Batu 1 Bandung, Java INDONESIA

Prof. Dr. Ir. Sajogyo Social Economics Department Institute Pertanian Bogor Jolan Malaban Bogor, INDONESIA

Mr. Benedict Sandin c/o Sarawak Museum Kuching, Sarawak MALAYSIA

Dr. and Mrs. C. A. Sather School of Comparative Social Sciences University Sains Malaysia Minden, Penang, MALAYSIA Mr. William Schneider Department of Anthropology University of Arkansas Fayetteville, Arkansas 72701 U.S.A.

Rev. Richard L. Schwenk 114 Catherine Street Ithaca, New York 14850 U.S.A.

Mr. I. M. Scott, Esq. Soil Survey Division Department of Agriculture Kuching, Sarawak, MALAYSIA

Ms. Joan Seeler 170 Nehoiden Road Waban, Massachusetts 02168 U.S.A.

Pengeran P. M. Shariffuddin Curator, Brunei Museum Kota Batu, BRUNEI

Mr. Walman Sinaga Djl. Bondongan No. 31 Bogor Djawa-Barat INDONESIA

Mr. Hatta Solhee Agricultural Rescarch Centre Semongok, Kuching Sarawak, MALAYSIA

Dr. Wilhelm Solheim II Department of Anthropology 2550 Campus Road University of Hawaii Honolulu, Hawaii 96822 U.S.A.

Dr. Sukarja Somadikarta Museum Zoologicum Bogoriense Bogor, INDONESIA

-91-

Mr. Steinar A. Sörensen Assistant Cürator Universitets Ethnoraf. Müseüm Fredriksgt 2 Oslo I, NORWAY

Mr. C. H. Southwell P. O. Box 995 Miri, Sarawak MALAYSIA

Ir. Supardi, Dosen Facultas Pertanian Univ. Lambung Mangkurat Jalan Unlam I/3 Banjarmasin, Kalimantan Selatan, INDONESIA

Mr. Fudiat Suryadikara Facultas Keguruan Jalan Veteran 286 Banjarmasin, Kalimantan Selatan, INDONESIA

Dr. and Mrs. Vinson H. Sutlive, Jr. Department of Anthropology College of William and Mary Williamsburg, Virginia 23185 U.S.A.

Dr. John O. Sutter 884 Flaxberry Lane San Rafael, California 94903 U.S.A.

Dr. David L. Szanton Project Specialist, Asian Studies The Ford Foundation (Bangkok) 320 E. 43rd Street New York, New York 10017

U.S.A.

Prof. Nicholas Tarling Department of History University of Auckland, Private Bag Auckland, NEW ZEALAND

Mr. Peter Thomas Regional Soil Survey and Land Capability Classification Project c/o Department of Agriculture Kota Kinabalu, Sabah MALAYSIA

Prof. B. Tjitrodikoesoemo Pb. Rektor II Univ. Lambung Mangkurat Jl. Lambung Mangkurat 20 Banjarmasin, Kalimantan Selatan, INDONESIA

Ms. Virginia Tomasek Universitas Lambung Mangkurat Bandjarmasin, Kalimantan Selatan, INDONESIA

Mr. Henry C. Tsen Khin Siong Assistant Curator P. O. Box 1239 Sabah Museum Kota Kinabalu, Sabah MALAYSIA

Prof. Dr. E. M. Uhlenbeck Dr. Kuyperlaan 11 Voorhout, NETHERLANDS

Dr. Fridolin Ukur, Direktur Lembaga Penelitan & Studi Dewan Gerejaw di Indonesia Jl. Salemba Raya 10 Jakarta, INDONESIA

Mr. Motomitau Uchibori Department of Cultural Anthropology University of Tokyo Akamon-iru, Bunkyo-ku Tokyo, JAPAN Dr. Wang Gungwu Department of Far Eastern History Australian National University Canberra, A.C.T. AUSTRALIA

Mr. S. T. Wan Ullok, Esq. Jugah and Wan Ullok Associates P. O. Box 1239 Kuching, Sarawak MALAYSIA

Mr. and Mrs. James Warren Research School of Pacific Studies Australian National University Canberra, A.C.T. AUSTRALIA

Mr. and Mrs. H. L. Whittier Department of Anthropology Michigan State University East Lansing, Michigan 48824 U.S.A.

Dr. R.O. Whyte P.O. Box 167 Kota Baru Kelantan, MALAYSIA

Mr. W.D. Wilder Department of Anthropology University of Durham South End House South Road, Durham City DHI 4QG, ENGLAND

Mr. J. R. Wortmann Fransen van de Puttelaan 32 Zeist, NETHERLANDS

Dr. Leigh R. Wright Department of History University of Hong Kong Pokfulam Road HONG KONG Mrs. Elaine McKay
Tasmanian College of Advanced Education
G. P. O. Box 1415P
Hobart, Tasmania 7001
AUSTRALIA