

BORNEO RESEARCH BULLETIN

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NOTES FROM THE EDITOR

We are pleased to announce the appointment of Dr. Clifford Sather (University of Oregon) as the new Editor of the *Borneo Research Bulletin*. Dr. Sather's work on the Iban and Bajau is well known to students of Borneo societies and cultures, and his acceptance of the editorship augurs well for the future of the *Bulletin*.

As your contributions to and support of the Council's work has grown, we have had to share the workload among Fellows and Members. Therefore, we are pleased to announce that Dr. Sather will be assisted in editing the *Bulletin* by Dr. Richard Fidler (Rhode Island College), who will have responsibility for Research Notes, Dr. Anne Schiller (North Carolina State University), who will edit Brief Communications, and Dr. Phillip Thomas (Library of Congress), who has agreed to help with processing of material for publication. Dr. Richard Allen Drake (Michigan State University) has agreed to edit the Monograph Series, and we hope to identify an editor for the volumes of Proceedings from the Biennial Conferences.

It is with mixed emotions that I write what is this Editor's final note. I accepted the editorship at the insistence of the late Tom Harrison, and have never regretted it. The work has been rewarding, and has allowed for the unusual opportunity to learn about the myriad research activities underway in all parts of the island. The suggestions of many Fellows and Members have moved the Council into new areas and activities, for example, the query by Dr. Peter Kedit in Chicago (1987) about the BRC holding a conference in Borneo.

Through it all, there are four people to whom I want to express my special thanks. The first is Mrs. Jean Belvin, Secretary, Department of Anthropology, who has produced every issue of the *Bulletin* since 1980, the two volumes of the Monograph Series, and the Proceedings. Considering the full-time job she has as secretary to a department of 12 members, her performance has been extraordinary. The second person is George Appell, who has been the principal supporter of much of the work of the Council. A genuinely modest person, George has made available resources when they were needed, and has kept the Council's work on course. The third person is Datuk Amar Leonard Linggi Jugah, to whom is due most of the credit for the first conference in Kuching, that served to set the standard for future conferences. And the fourth person is my wife, Joanne, who has been not only collaborator in my research projects but also a constant source of encouragement. (Continued on Page 171)

SARAWAK'S 1987 AND 1991 STATE ELECTIONS:
AN ANALYSIS OF THE ETHNIC VOTE

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ABSTRACT

This article deals with state elections in the East Malaysian state of Sarawak in 1987 and 1991. The election in 1991 was the first to be held after an attempted coup in 1987 and also under new electoral boundaries, thus generating much interest among the electorate and political observers. The author analyzes both elections in relation to ethnicity and to the ethnic voting patterns of the Dayak, Malay / Melanau, and Chinese communities. The author concludes that while ethnic voting pattern is fairly well established in Sarawak, there is little likelihood that one particular ethnic group will be able to dominate politics, unlike the situation in Peninsular Malaysia where Malay political hegemony is taken for granted. This, the author argues, is due to Sarawak's plural population and the ethnic composition of the constituencies.

INTRODUCTION

In Malaysia, ethnicity is the major preoccupation of politicians and political parties, and in the East Malaysian state of Sarawak this is no exception. What is different is that Sarawak is much more plural than Peninsular Malaysia. While the ethnic Malays made up approximately half of the population in the Peninsula (51%) with the Chinese (35%) and Indians (11%) making up the rest, the demographic situation in Sarawak (and Sabah) is very different. In the first instance, the Malays are a minority. Secondly, no one ethnic group can claim to be in absolute majority, ie. more than 50% of the population.

In addition, again unlike the situation in Peninsular Malaysia, the politics in Sarawak are different. It is generally acknowledged that the Malays in Peninsular Malaysia are politically dominant to a point that the non-Malay parties in the *Barisan Nasional* (BN or National Front) coalition are regularly marginalised in the political decision-making processes (Means 1991). During elections, the non-Malay BN parties such as the Malaysian Chinese Association (MCA) and the Malaysian Indian Congress (MIC) regularly do not garner many votes compared to the main

non-Malay opposition party, the Democratic Action Party (DAP) (Khong, 1991; Means, 1991; Zakaria, 1993).

In Sarawak, the ethnic Malays do not hold political power. Political power and patronage is held by the minority Melanau Muslims, who constitute just 5 per cent of Sarawak's population. Moreover, as we shall see, the Chinese voters in Sarawak have yet to elect a single DAP candidate for the State Legislative Assembly. Instead the Chinese in Sarawak have consistently voted for a local Chinese-based party in the governing coalition.

In early 1987, a split within the elite Melanau Muslims caused a political crisis which led to a snap election. The state election generated great interest as the two competing groups were more or less equally matched, a situation uncommon in Malaysia where the governing BN is usually the overwhelming favourite.¹ The results of the election were close, with the opposition alliance securing slightly less than half the seats in the Dewan Undangan Negeri (DUN or State Legislative Assembly), thus denying the Sarawak Barisan Nasional (Sarawak National Front or SBN) of its all important two-thirds majority. The two-thirds majority allows the government of the day to pass amendments to the State Constitution.

An eagerly awaited state election was held in September 1991 with some interesting results. Observers who thought that the ruling SBN under Taib Mahmud would lose up to 15 seats were surprised when the SBN instead won 48 out of 56 seats.

This article discusses and analyzes the electoral results from these two elections in relation to ethnicity and ethnic voting pattern. The details--campaign issues and the conduct of the political parties--will not be discussed in depth here, as they are described elsewhere.² Nevertheless some background will be briefly discussed as it may be useful to our analysis.

ETHNIC BREAKDOWN

Sarawak is the largest state in the federation of Malaysia and one of the only two states located on Borneo Island, the other being Sabah. Both these states joined the federation in 1963. The current population of Sarawak is roughly 1.8 million and is made up of the following ethnic groups: Ibans (30%), Chinese (30%), Malay (20%), Melanau (5%), Bidayuh (8%), other indigenous peoples (Orang Ulu, Kayan, Kenyah, etc) (7%). The Ibans, Bidayuh and other indigenous peoples are also collectively called the Dayaks while the Malay and Melanau ethnic groups are usually politically grouped together as the Malay / Melanau.

Given that all the political parties rely on one ethnic group as their core support group, the ethnic proportion of each constituency is of major interest to this paper. Between the two elections, although the proportion of voters did not change much, the number of constituencies and their ethnic breakdown changed significantly.

Before the 1991 elections, Sarawak had only 48 State Legislative Assembly seats. The Dayaks constituted the largest bloc of voters in 25 out of these 48 constituencies.³ In 23 out of this 25, the Dayaks had an absolute majority, ie., they made up more than 50 per cent of the electorate (refer to Table 1). The Malay / Melanau were strongest in 13, with absolute majority in 12 (refer to Table 2). The Chinese made up the largest group of voters in 8, having an absolute majority in all 8 constituencies (refer to Table 3). There were also two mixed constituencies where there were two ethnic groups with roughly equal percentage of voters (refer to Table 4).

Between 1984 and 1986, the Malaysian Election Commission undertook a major delineation exercise which significantly changed the boundaries of all 48 constituencies and added an additional eight seats in the DUN, that is, from 48 to 56. More than half of the altered constituencies were given new names. The 1991 state election took place under these new electoral boundaries. With the new boundaries, the Dayaks still constituted the largest bloc of voters in 24 out of 56 constituencies, or one less than before the delineation (refer to Table 1). However, this time in all 24 constituencies they had an absolute majority. Malay / Melanau majority seats increased from 13 to 19, and this group had had an absolute majority in 16 constituencies (Table 2). The ethnic Chinese were now the strongest in 11, again having an absolute majority in all 11 constituencies (Table 3). Thus, the major beneficiaries of the delineation exercise were the Malay / Melanau and Chinese communities who increased their majority seats by six and three respectively. The distribution of the eight new constituencies were: five Malay / Melanau-majority and two Chinese-majority constituencies. The last new constituency was mixed where no one particular ethnic group constituted a clear majority (refer to Table 4).

The proportion of voters in the 1987 polls were: 40 per cent Dayaks; 34 per cent Chinese and 26 per cent Malay / Melanau. In 1991, the proportion was: Dayaks 40 per cent, Chinese 33 per cent and Malay / Melanau 27 per cent. Hence, virtually no change.

Before the delineation exercise, the Dayaks were over-represented based on the ethnic percentage of voters. In 1987, Dayak-majority seats accounted for 52 per cent of all seats while the percentage of Dayak voters was only 40 per cent. While the Dayaks were over-represented, the Chinese voters were under-represented.

In 1987, they constituted about 34 per cent of Sarawak's voters but they were a majority in only 17 per cent of the 48 constituencies. Only the percentage of Malay / Melanau voters corresponded to the number of Malay / Melanau majority seats (refer to Table 6).

After the delineation exercise, the Malay / Melanau became over-represented. While accounting for about 27 per cent of Sarawak voters, they now command the majority in 34 per cent of the 56 constituencies. The Dayak majority seats, which were previously over-represented, were now fairly representative. They were now the majority ethnic group in 42 per cent of all seats, roughly equal to their percentage as voters, which still remains at 40 per cent. While the Chinese increased their share of majority seats to 19 per cent, they were still under-represented as they made up 33 percent of all voters.

Thus it can be seen clearly that not only did the delineation exercise benefit the Malay / Melanau community in terms of increasing their majority seats, but it also distorted the overall electoral system in their favour. The major loser was the Dayak community while the position of the Chinese community did not change significantly.

All elections held after Sarawak joined the Malaysian federation have been based on the British pattern of single-member constituency and first-past-the-post system.

BRIEF BACKGROUND

Since 1970, Sarawak has been ruled by the SBN coalition government. From 1970 to 1983, the SBN coalition consisted of three parties: Pesaka Bumiputera Bersatu (PBB), Sarawak United People's Party (SUPP) and the Sarawak National Party (SNAP). The PBB is the backbone of the SBN, like the United Malays National Organisation (UMNO) in Peninsular Malaysia, and its nominee is the chief minister. Although all these parties profess to be multi-racial and no racial criteria are used for membership or party positions in any of these three political parties, in general terms the PBB represents the Malay / Melanau, SUPP the Chinese and SNAP the Dayaks. Substantial Dayak membership is also found in PBB and a smaller number in SUPP. PBB's Rahman Yakub ruled as chief minister from 1970 until he moved up to the Governor's post in 1981. Henceforth, Taib Mahmud, a nephew of Rahman Yakub, resigned from his federal cabinet post and took over as chief minister and chairman of the SBN. In 1983, a splinter group of Dayaks in SNAP broke away and formed the Parti Bansa Dayak Sarawak (PBDS or Sarawak Dayak People's Party) with former SNAP vice president Leo Moggie as its president. The SNAP crisis erupted after the presidency of SNAP was won by a wealthy ethnic Chinese businessmen, James Wong Kim Min over Moggie,

an Iban, in 1981. Since Dayaks form the bulk of SNAP, senior Dayak SNAP leaders felt that a Dayak should lead the party. This group of SNAP leaders formed the core group that launched PBDS in 1983. What was special about PBDS was that its constitution stated that only Dayaks could be members. Thus PBDS became the only strictly communal political party in Sarawak.⁴ From 1983 until 1987, Taib Mahmud devised the 'BN Plus' formula, meaning that PBDS was part of the ruling SBN but not part of the three original SBN component parties (PBB, SUPP, SNAP) which was (is) nicknamed BN3.

MING COURT AFFAIR

In March 1987, 27 SBN state assemblymen, some holding ministerial posts, signed a petition demanding the resignation of Taib Mahmud in Kuala Lumpur.⁵ The main organisers of this revolt were former chief minister and governor Rahman Yakub, and PBDS's leader Leo Moggie. Instead of acceding to their demand, Taib opted for a snap election. The April 1987 election was the most keenly contested in Sarawak since the early 1970s. Rahman and Moggie formed an opposition alliance called Kumpulan Maju (Maju group) comprising the newly established Persatuan Rakyat Malaysia Sarawak (Permas) political party and PBDS. On Taib's side was the BN3. Hence both sides were more or less equally matched.

The two most important issues in 1987 were the 'uncle nephew' feud (Rahman versus Taib) and ethnic Dayak nationalism dubbed 'Dayakism'. Permas concentrated their attacks on the personal style of Taib, and besides accusing him of cronyism (giving timber concessions and business opportunities to those close to him), also hinted that he was not a good Muslim by indulging in 'bomohism' (medium shamanism). Taib and PBB hit back by arguing that Rahman was out to 'split Malay and Muslim unity' and that Rahman was greedy for power. Taib also released details on timber concessions given out by Rahman when the latter was chief minister to show that Rahman himself was practicing the 'politics of timber'.

While Permas concentrated on the Malay / Melanau votes, PBDS appealed to Dayak nationalism by playing on the theme that the Taib government had neglected the Dayaks and that for the Dayaks to exert their political weight in proportion to their population, which is more than 40 per cent, they had to unite under PBDS. This call to Dayak nationalism was extremely effective in the rural areas where the bulk of the Dayak-majority constituencies are located. Other primary issues raised against the Taib government were corruption and victimisation of the Dayaks by the Taib administration. Another opposition party, the Sarawak Democratic Action Party (DAP), concentrated their campaign on their traditional supporters, the urban Chinese electorate. The DAP put up

candidates primarily against the SUPP, and asked the Chinese to back them so that they could be the 'third force' in Sarawak politics. SUPP's appeal to the Chinese community was basically communal by reiterating that the Chinese community had suffered under Rahman decade of rule and that Taib was more 'moderate' in his policies. SUPP also campaigned on the need for the Chinese to back the SBN in order to stop PBDS's Dayakism since any promotion of Dayak interests, especially in the economic sphere, would be at the expense of the Chinese community.

The SBN also charged that PBDS was made up of 'racists' since the party did not allow non-Dayak membership and was only interested in promoting the Dayaks to the detriment of all the other races in Sarawak. Because the PBDS's president, who was a federal minister, was not standing as a candidate, he was widely criticised for not 'leading his troops into battle' himself and subjected to charges that the PBDS leadership was not serious about Dayakism.

THE 1987 ELECTION RESULTS

The Dayak nationalism and unity theme, Dayakism, effectively won PBDS 15 seats, sweeping almost all the Dayak constituencies, especially the Iban seats (refer to Tables 1 & 5).⁶ However, PBDS's Maju partner Permas failed to unseat PBB candidates in the 13 Malay / Melanau constituencies and managed to win only 5 seats. Even Rahman Yakub himself was defeated by a politically unknown PBB candidate. The DAP and independents were unable to win even one seat. Overall the SBN won 28 constituencies: PBB 14; SUPP 11 and SNAP 3. The big loser was SNAP which suffered its heaviest defeat when most of its seats fell to PBDS. This was natural as most of SNAP's candidates were in Dayak-majority constituencies where Dayakism had the strongest appeal.

By early 1988, eight of the successful PBDS candidates crossed over into the SBN. The major beneficiary of this crossover was the PBB. By competing against BN3, the PBDS became one of the very few Malaysian political parties with dual status- a member of the ruling Barisan Nasional (BN) coalition at federal level and an opposition political party at state level.

THE 1991 ELECTION

When state election was held in September 1991, the odds were very much in favour of the SBN. Due to the above mentioned defections, the state of the parties before the 1991 polls was: SBN 37 state assemblymen (PBB 21, SUPP 11 and SNAP 5). The opposition had only 11 seats: PBDS 7 and Permas 4.

The Sarawak BN put up candidates in all 56 constituencies. PBDS fielded 34 candidates, including 7 ethnic Chinese. Permas fielded 11 (all in Malay / Melanau constituencies) and the DAP 18. One hitherto dormant party, Parti Negara fielded 28 candidates. There were also 14 independents. Despite this large number of candidates, the real fight was always between PBDS and the BN3 and between the DAP and SUPP. Parti Negara and Permas were not seen as credible parties. On nomination day, PBB won two constituencies unopposed.

The BN3 basically campaigned on the issue of continuity of policies. The BN3 manifesto promised 'a better future for all' ending with 'let us continue to achieve more development for a better future'. Given the overwhelming superiority of the BN3 in terms of money and resources, the BN3 electoral machinery easily outperformed the opposition in terms of printed paraphernalia, gatherings and campaign workers. The controlled press and government-owned broadcast media were naturally partisan towards the BN3. Many of the attacks on the PBDS were similar to the 1987 campaign: PBDS was repeatedly characterised as a 'racist' party and its president, who, again like 1987, did not stand as a candidate, was called a 'coward' who was willing to 'sacrifice his troops'.

Both the PBDS and DAP had high hopes for the 1991 state polls. There were reasons for PBDS's optimism. In the parliamentary election held in 1990, PBDS-backed independents had won 4 seats. The results of the parliamentary polls in Sarawak (where there are 28 parliamentary seats) were: PBB 10; SUPP 4; PBDS 4; SNAP 3 and independents 4. Since the 4 successful independents were PBDS-backed, PBDS had effectively eight parliamentary seats.⁷ The four PBDS-backed independents had beaten 2 SUPP and SNAP candidates each. The success of the 4 PBDS-backed independents was seen by the PBDS leadership as evidence that Dayakism fever was still running high among the Dayak electorate. The PBDS calculated that a repeat of the Dayakism factor in 1991 would propel the PBDS into power at the state level.

Beside invoking Dayakism, the PBDS also attempted to reach out to the non-Dayak voters, especially the Chinese voters. This was an indirect admission that the party's base of support was too narrow and that the party was seen as too chauvinistic in pushing for the Dayaks. The PBDS set up a Chinese Affairs Consultative Committee (CACC) supposedly to give the Chinese community a direct line to the leadership of PBDS.

The Chinese-based DAP was optimistic that it would win in least two constituencies, Batu Lintang and Bawang Assam, located in the Chinese-dominated towns of Kuching and Sibu respectively. This can be attributed to the racial make-up and boundaries of the two constituencies. Both are new constituencies and were overwhelmingly populated by Chinese voters: in Batu

Lintang, it was 88 per cent and in Bawang Assam 73 per cent (refer to Table 3). More importantly, both these seats fall within the electoral boundaries of the Bandar Kuching and Lanang parliamentary constituencies won by DAP just a year earlier in 1990. While the DAP had won Bandar Kuching twice before (in the 1982 and 1986 parliamentary elections), the new seat of Lanang was won by the DAP for the first time. The DAP was 14 also confident, as the DAP candidate in Padungan was the sitting MP, while in Bawang Assam, the DAP candidate was a former MP for the area.

The DAP based their campaign on getting the Chinese voters 'to break the egg'. The 'egg' in Mandarin denotes a 'zero' and this metaphor was meant to remind the Chinese voters to elect at least one DAP candidate, thus symbolically 'breaking the egg'. They also argued that opposition members were needed to perform the 'check and balance' role.

When the results were announced on 29 September, it was clear the BN3 had made a clean sweep of all but 7 seats (refer to Table 5). The PBB won all the Malay / Melanau constituencies and the SUPP did likewise in the Chinese constituencies. The 7 constituencies won by the opposition PBDS were all in Dayak-majority constituencies.

ETHNIC VOTING AND OUTCOME OF ELECTIONS

The Dayak Vote

As shown in Table 1, PBDS won 15 seats in 1987, all in Dayak-majority constituencies. This meant that PBDS captured 60 per cent of the Dayak-majority constituencies outright. Given that its ally in the 1987 poll, Permas, captured 1 further Dayak-majority seat (Igan) based primarily on PBDS supporters, this meant that PBDS captured 68 per cent of the Dayak constituencies in 1987.

The correlation between Dayak voters and PBDS is even clearer when we note that in any constituencies where the Dayaks made up more than 70 per cent of the electorate, the PBDS candidate won. The only exceptions were in the constituencies of Dudong (where a Dayak SUPP candidate won) and in Belaga (where a Dayak PBB candidate won).

However, there were specific historical circumstances to explain the PBDS loss in these two constituencies. In the case of Dudong, where Dayaks made up 81 per cent of the electorate, the successful SUPP candidate Jawan Empaling was able to beat the incumbent PBDS's Wilfred Kiroh. Kiroh had won the Dudong seat earlier in the 1983 state election as a SUPP-backed independent⁸ before he switched over to PBDS during the Ming Court Affair mentioned above. In 1983, Empaling had openly campaigned for Kiroh and thus he knew the electoral

terrain well. Moreover, the PBDS lost by only 311 votes in 1987, indicating that the SUPP's win was aided in large part by Chinese and Malay / Melanau voters who collectively made up nearly 20 per cent of the electorate.

In the case of Belaga, this was a constituency where politics was dominated by two personalities, not by party or ideological allegiance. In the four state elections from 1970 onwards (1970, 1974, 1979 and 1983), the main electoral battle has always been between two individuals: Tajang Liang and Nyipa Bato. Ironically, both are ethnic Kayan and are related. Nyipa Bato, standing as a SUPP candidate, won in 1970 and 1974. In 1979 Tajang Liang won as an 'independent' and won re-election as a PBB candidate in 1983. In the 1983 contest, Nyipa Bato had stood as an 'independent'. Tajang Liang defected to Permas in March 1987 and thus the SUPP had to 'loan' Nyipa Bato to PBB for the 1987 election.⁹ Thus Nyipa Bato's win as a PBB candidate in 1987 was based on his personal following, not party identification.

While PBDS may have captured 68 per cent of the Dayak constituencies in 1987, an analysis of the margin-of-victory suggests that the Dayakism factor had a much more limited impact. If we classify a victory by a margin of less than 500 votes as marginal-win (and 1,000 or more majority votes as a clear-win), then PBDS could only really claim 5 constituencies as clear-wins. Another 7 constituencies where the PBDS's candidates won were marginal-wins - all 7 had majorities of less of than 500. The other 3 constituencies where the PBDS' won had majorities of between 500 and 1,000 (in-between) votes. The only Dayak constituency won by PBDS' partner, Permas, had a majority of only 23 votes, a very marginal-win.

On the BN side, 5 constituencies were also won by clear-wins, 1 in between 500 and 1,000 votes and 3 constituencies by marginal-wins. Thus it could be argued that the 1987 election results suggest that 'Dayakism' was strong in only 5 constituencies while the BN had clear wins in 5 constituencies. The fact that 11 constituencies were won, by either side, by a margin of less than 500 votes shows that the Dayak vote was deeply split.

In 1991 the electoral result was totally reversed. The PBDS won only 7 seats. This represents only 29 per cent of all Dayak-majority seats, a far cry from the 70 per cent achieved in 1987. Although all the constituencies won by PBDS had a high concentration of Dayak voters (the lowest percentage of Dayak voters where the PBDS candidate won was 78 per cent), the PBDS lost 6 constituencies where the percentage of Dayak voters exceeded 90 per cent. Contrast this with the situation in 1987 where PBDS candidates won in all constituencies where the Dayak made up more than 70 per cent of the voters, and the magnitude of loss of support for PBDS can be understood.

However, if we use the margin-of-victory obtained as our guide, then PBDS' performance in the 1991 polls was not really surprising. As mentioned, PBDS achieved clear-wins in only 5 constituencies and won another 3 by a margin of between 500 and 1,000 votes in 1987. Hence PBDS was only really strong in 8 constituencies. Taking into account the delineation exercise, PBDS's victory in 7 constituencies in 1991 was thus consistent. The margin-of-victory in the 7 constituencies were: 1 clear-win, 3 marginal-wins and another 3 in-between.

In 1991, it could also be argued that the multi-racial rhetoric of the component parties of the SBN (PBB, SUPP, SNAP) was able to win some Dayak voters over. In the 6 constituencies where the Dayak made up more than 90 per cent of the electorate, 3 seats each were won by the Pesaka Wing of the PBB and by SNAP. A further example of the weakening of the 'Dayakism' factor can be seen in the Engkilili constituency. This 85 per cent Dayak constituency was won by a ethnic Chinese candidate from the Chinese-based SUPP.¹⁰

The 17 Dayak constituencies won by SBN were made up of the following: 7 clear-wins, 5 marginal-wins and 5 in-betweens. Contrast this with the BN's 1987 performance of 5 clear-wins, 1 marginal-win and 3 in-betweens, then it is quite clear that the BN has performed better against PBDS in 1991.

In summary, it would appear that while in 1987, PBDS was able to invoke ethnic nationalism--Dayakism--with a clear communal voting pattern, the same cannot be said for 1991. However, although the 'Dayakism' factor was strong in 1987, it was 'strong' in only 5 of the 15 constituencies where PBDS candidates won. This is reflected by the margin of victories. Because of this, PBDS's inability to retain even half of the 15 seats in 1991 was not really surprising. Winning only 7 constituencies suggests that PBDS was unable to broaden its support base.

Although PBDS increased its popular vote from 17.63 per cent in 1987 to 21.48 per cent in 1991, this was not a significant increase (refer to Table 7). The increase was due to a larger number of PBDS candidates. In 1987, PBDS fielded 21 candidates (Permas also fielded 21) but in 1991, PBDS put up 34 candidates, an increase of 13. Hence the increase in popular vote was due to the 13 new PBDS candidates.

The Malay / Melanau Vote

In 1987, the Malay / Melanau vote was solidly behind PBB despite a formidable opponent. The PBB took 11 seats, or 85 per cent, of the Malay / Melanau constituencies. The PBB's main opponent Permas, led by Rahman Yakub, himself a former president of PBB and one of the main figures behind its formation in 1973 (PBB was formed after a merger of the Bumiputera and Pesaka

parties). Rahman Yakub had led PBB from its inception until the early 1980s. When he subsequently set up Permas, many thought his forceful personality could mount a 'reverse takeover' of PBB and the Malay / Melanau vote. However, the 1987 election result suggests this did not happen, as the PBB won all constituencies where at least 70 per cent of the electorate were Malay / Melanau voters.

Although Permas candidates won in 3 Malay / Melanau constituencies, it could be argued that these candidates won by specific factors and the PBDS Dayak vote. In the Gedong and Kalaka constituencies, the Dayak made up a significant 41 and 36 per cent of the constituency respectively. As we have shown above, there is a strong correlation between Dayak voters and electoral support for PBDS. If we assume that the Dayaks in these two constituencies voted solidly for PBDS' partner Permas, then the Permas candidates only have to win a fraction of the Malay / Melanau vote to win. Moreover, in the Gedong constituency, the Permas candidate was the incumbent who had defected from the PBB to Permas. In the Oya seat, the percentage of Dayak voters is 25 per cent, and the Permas candidate probably won because he, too, was an incumbent who had crossed-over to Permas from PBB. Moreover, he had only won the Oya seat in a by-election in mid 1986, thus his grassroots support was still relatively intact.

In terms of margins-of-victory, the 1987 results reflected the trend that Permas was no threat to PBB. Ten of the eleven Malay / Melanau seats won by PBB had majorities of more than 1,000 votes, thus indicating clear-wins. The other seat was in-between - a majority of 810 votes. Two out of three Permas candidates also had clear-wins but Permas's third victory was a marginal-win -with a majority of only 77.

In 1991, the Permas challenge to PBB simply disappeared. The PBB scored a 100 per cent success rate in the Malay / Melanau constituencies by winning all 18 seats. In terms of majorities, all PBB victories were clear-wins with the exception of one (Berlawai) which was a marginal-win.

The ethnic status of all PBB candidates in Malay / Melanau constituencies in these two elections was always either Malay or Melanau, reflecting the ethnic voting pattern. In both 1987 and 1991, all the PBB candidates were either Malay or Melanau.¹¹

In 1987, there was only one non-Malay / Melanau candidate (Lawas constituency) in the 14 Malay / Melanau constituencies. In the 1991 elections, there was 7 non-Malay / Melanau candidates in the 18 Malay / Melanau constituencies. However, their votes were insignificant. The total votes obtained by these 7 non-Malay / Melanau candidates was about 6.04 per cent of the total

votes cast in the 16 Malay / Melanau constituencies (2 constituencies were not counted because they were won unopposed).

Although Permas decreased its popular vote from 14.22 per cent in 1987 to 9.69 per cent in 1991, this was not a significant decrease (refer to Table 7). The drop was due to a 50 per cent decrease in the number of Permas candidates. In 1987, Permas fielded 21 candidates but in 1991 Permas put up only 11 candidates, a decrease of 10. Hence the decrease in popular vote was expected.

In summary, the voting pattern in the Malay / Melanau constituencies is much more stable and is clearer than in Dayak constituencies. Unlike the Dayak results in both the 1987 and 1991 elections, most of the victories were clear-wins. There could be two reasons for this. First, there was a clear choice in the Malay / Melanau communities. There is only one representative on the SBN / government side, the PBB. On the opposition side too there was also only one choice- Permas. Contrast this with the Dayak constituencies where the SBN was represented by three parties- PBB, SNAP and SUPP. Second, the Malay / Melanau voters have a long history of voting loyally for the BN's *dacing* (scale) symbol. This has been an important factor in PBB's electoral success in past elections. With PBB seen as Malay / Melanau party capable of protecting the special privileges of the Bumiputeras¹² and as the backbone of the Sarawak BN, other parties contesting under other symbols in Malay / Melanau seats do not really stand a chance.

The Chinese Vote

In the Chinese-majority constituencies it would appear that the Sarawak Chinese voters have voted solidly for the SUPP, a component of the Sarawak BN, in both elections. All the SUPP candidates in both elections won all the Chinese-majority seats. The majorities obtained reflects this trend. In 1987, all the SUPP victories were clear-wins bar one. Even then, the majority obtained by the SUPP candidate was 915 votes, close to 1,000 votes (ie. a clear-win). In the 1991 election, all the SUPP candidates achieved clear-wins.

The correlation between ethnic status and voting pattern is as strong in the Chinese constituencies as it is in the Malay / Melanau areas. All the SUPP candidates in Chinese-majority constituencies in 1987 and 1991 were ethnic Chinese. The ethnic voting trend is also reflected by the percentage of votes collected by non-ethnic Chinese candidates standing in the Chinese majority constituencies. In 1987, the only non-Chinese candidate standing in the Chinese constituencies received 2,407 votes or a mere 1.6 per cent of all the total votes cast in the 8 Chinese seats. In 1991, the 3 non-Chinese candidates collectively received 708 votes or 0.5 per cent of all the votes in the 11 Chinese majority constituencies.

In sum, the SUPP appears to be fairly safe in all the Chinese-majority constituencies. The SUPP's main opponent, also a Chinese-based party, the Democratic Action Party (DAP), looks unlikely to be able to dislodge the SUPP given the healthy margin-of-victory.

CONCLUSION

There are several general observations that can be made from our analysis of the 1987 and 1991 state elections in Sarawak. First, ethnic voting, although not as sharp as those in Peninsular Malaysia, is still the key factor in Sarawak politics. Although all the political parties in Sarawak preach multi-racialism, they rely on one ethnic grouping for their core electoral support. This is reflected by the popular votes obtained by the parties (refer to Table 7). For example, PBDS, Permas and DAP were unable to win more votes than the percentage of voters in each of their core ethnic group supporters. In 1991 PBDS obtained more 21.48 per cent of the popular vote; this was about half of Dayak voters in the state who made up 42 per cent of eligible voters. The same tendency can be seen for Permas and DAP votes. Permas was only to win 14.22 per cent of the popular vote in 1987 and 9.69 per cent in 1991 while the Malay / Melanau voters were 26 per cent in 1987 and 27 per cent in 1991. The DAP managed to gather 11.38 per cent of the total votes in 1987, its best performance in state elections so far, but this was still short of the 34 per cent of all voters who are ethnic Chinese. While a similar comparison of votes obtained by PBB, SUPP and SNAP would be extremely useful, it is not possible currently as all three use the BN's *dacing* symbol on the ballot paper. Thus each of the SBN parties collect votes from supporters of each component party. However, it would be fair to assume that if PBB, SUPP and SNAP went their separate ways, it is unlikely each would be able to get a higher percentage of popular votes than the percentage of voters from their core ethnic supporters.

The strong ethnic voting pattern is also reflected in the selection of candidates, eg., the SUPP has always selected ethnic Chinese in Chinese constituencies and the PBB has always selected ethnic Malay or Melanau in Malay / Melanau constituencies. Second, while the ethnic bloc vote¹³ is fairly steady in the Malay / Melanau and Chinese communities, the Dayak community appears to be willing to vote for a candidate from the non-Dayak community, as the above example of the ethnic Chinese candidate in Engkilili shows. Another example is Dayakism. While PBDS was successful in using this ethnic nationalism call to win almost all the Dayak seats in 1987, a similar call in 1991 went largely unheeded by the same Dayak community.

Third, because of the fairly well-established ethnic voting pattern, no one particular ethnic group in Sarawak can hope to dominate politics in Sarawak. With the ethnic breakdown of constituencies as 24 Dayak-majority, 18 Malay / Melanau, 11 Chinese and 3 mixed, no one ethnic group can hope to form a government on its own, as a government with a simple one seat majority would require at least 29 seats. In effect, even if all the Dayaks were to unite under Dayakism (read PBDS), it would still be short 5 seats. This situation compares favourably when one looks at Peninsular Malaysia. There, the electoral boundaries have been systematically distorted by straight forward gerrymandering in order to maximise and increase Malay-majority constituencies, so much so that it is now possible for UMNO alone to form a simple working majority in Parliament. The number of Malay-majority parliamentary seats has increased from 66 in 1964 to 92 in 1986. In the same period, the number of Chinese majority seats have gone down from 33 in 1964 to 26 in 1986, despite an increase of 26 parliamentary constituencies between 1964 and 1986. The Malay-majority seats now account for over 70 per cent of all parliamentary seats in Peninsular Malaysia, in spite of the fact that Malays made up only about 55 per cent of total eligible voters (Yeoh 1988: 27-28).

Given the scenario in Sarawak that no one particular ethnic group can monopolise more than half of all state constituencies, it would be fair to assume that Sarawak's politics in the years to come will be much more pluralistic than in Peninsular Malaysia's. However, this scenario is valid only as long as no major delineation or redrawing of the constituency boundaries is undertaken. As we have seen, the major beneficiaries of the last delineation exercise were the Malay / Melanau community. Malay / Melanau are already holding a disproportionate share of the constituencies (see Table 6). There may be a time in the future when the Malay / Melanau-majority constituencies may go up from their present 34 per cent to more than 50 per cent.

Finally, the SBN is likely to hold power in Sarawak for the foreseeable future as long as voting is along ethnic lines. This is because the present electoral system, first-pass-the-post, rewards coalitions or alliances as they can combine their ethnic votes to win. Thus a PBB candidate standing under the BN's *dacing* symbol can expect votes not only from the Malay / Melanau community but also from SUPP Chinese supporters and SNAP Dayak voters. The collective votes has allowed the SBN to get more than 50 per cent of the popular vote in 1987 and 1991 (refer to Table 7). The implication of this is that single communal based parties like the PBDS and the DAP will find it next to impossible to dislodge the SBN coalition.

NOTES

1. In every general election since the Barisan Nasional was formed in 1974, the BN has always secured more than two-thirds majority in Parliament.
2. For an account on the 1987 election, see M. Leigh (1991) and on the 1991 election, see J. Chin (1994) and Jayum (1993).
3. All data given in this paper were compiled by the author from various sources including newspapers reports, documents from political parties and various reports from the Election Commission Malaysia; unless otherwise indicated.
4. Another political party that was strictly communal, the Sarawak Chinese Association, was dissolved in 1973. The PBDS changed its constitution to allow non-Dayaks to be members in early 1993, an indirect admission that the policy of not allowing non-Dayaks to join the party had cost it votes among the non-Dayak population.
5. The hotel where the revolt took place is called Ming Court, hence the Ming Court Affair.
6. Ironically, although PBDS was riding high on Dayakism, its vice-president Daniel Tajem was defeated in 1987. Tajem, however, won a seat in 1991.
7. The PBDS contested the parliamentary election under the BN as it was a member of the federal BN. It was an opposition party at state (Sarawak) level only.
8. One interesting feature of Sarawak's politics is the use of 'independents' secretly backed by one of major SBN component parties during elections. Seat allocations in the BN are based on incumbency, thus the only way for one SBN., component party to 'wrestle' a constituency away from another SBN component is to use 'independent' candidates.
9. Nyipa Bato could not stand as a SUPP candidate in 1987 as Belaga technically belonged to PBB. See fn. 8 above.
10. This constituency was also won by an ethnic Chinese in 1983 and 1987. In 1983, the ethnic Chinese candidate, standing as a SUPP-backed independent, won because of a split in Dayak vote. In 1987, the same ethnic Chinese candidate won because he was now standing as a PBDS candidate.

11. While a few of the PBB candidates were strictly speaking not an ethnic Malay or an ethnic Melanau but Dayaks, the fact that they converted into Islam means that, for all purposes, they are seen as Malays. Converting to Islam is often referred to by the locals as 'masuk Melayu' loosely translated as 'becoming a Malay'.
12. In Malaysia being a *Bumiputera*, literally 'sons of the soil', brings a host of economic and social benefits, including easy access to tertiary institutions, scholarships and business loans. The 'special privileges' of the *Bumiputeras* are written into the Malaysian Constitution. Malays / Melanau and the Dayaks are classified as *bumiputras*.
13. Here it refers to an ethnic community voting for a candidate from the same ethnic group, regardless of whether the candidate is from the government or the opposition.

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TABLE 1
Results of the Dayak-majority constituencies in 1987 and 1991

Constituency	1987			1991		
	% Dayak	Result	Majority	Constituency	% Dayak	Result
1. Lundu	46	BN-SUPP	1,329	1. Bukit Bagunan	92	PBDS
2. Tasik Biru	63	BN-SNAP	417	2. Simangang	52	BN-SUPP
3. Benjoh	69	Maju-PBDS	219	3. Engkilili	85	BN-SUPP
4. Tarat	58	BN-SNAP	1,113	4. Batang Ai	95	PDBS
5. Tebakang	88	Maju-PBDS	4,357	5. Layar	81	BN-PBB
6. Lingga	68	BN-SNAP	59	6. Krian	96	BN-SNAP
7. Sri Aman	60	BN-SUPP	816	7. Pakan	92	BN-SNAP
8. Engkilili	84	Maju-PBDS	1,778	8. Meluan	93	BN-SNAP
9. Batang Ai	96	Maju-PBDS	741	9. Nagemah	88	PBDS
10. Layar	70	BN-PBB	1,725	10. Machan	78	BN-PBB
11. Krian	82	Maju-PBDS	414	11. Tamun	94	PBDS
12. Igan	51	Maju-Permas	23	12. Kakus	87	PBDS
13. Dudong	81	BN-SUPP	311	13. Pelagus	78	PBDS
14. Pakan	97	Maju-PBDS	258	14. Katibas	91	BN-PBB
15. Meluan	85	Maju-PBDS	1,044	15. Baleh	98	PBDS
16. Machan	72	Maju-PBDS	988	16. Kemena	59	BN-PBB
17. Nagemah	95	Maju-PBDS	359	17. Marudi	64	BN-SNAP
18. Katibas	92	Maju-PBDS	544	18. Belaga	95	BN-PBB
19. Pelagus	81	Maju-PBDS	16	19. Telang Usan	95	BN-PBB
20. Baleh	99	Maju-PBDS	1,091	20. Tasik Biru	62	BN-SNAP
21. Belaga	94	BN-PBB	1,933	21. Bengoh	64	BN-SUPP
22. Kemena	44	BN-PBB	1,958	22. Tarat	55	BN-PBB
23. Marudi	72	Maju-PBDS	1,054	23. Tebedu	80	BN-PBB
24. Telang Usan	95	Maju-PBDS	234	24. Tajung Datu	56	BN-SUPP
25. Tatau	76	Maju-PBDS	245			
Total	BN -PBB -SUPP -SNAP	4 3 3 (10)		Total	BN -PBB -SUPP -SNAP	8 4 5 (17)
	Maju -Permas 1 -PBDS	15 (16)			PBDS	7

TABLE 2
Results of the Malay/Melanau-majority constituencies in 1987 and 1991

1987				1991			
Constituency	% Malay/ Melanau	Result	Majority	Constituency	% Malay/ Melanau	Result	Majority
1. Petra Jaya	76	BN-PBB	3,310	1. Pantai Damai	89	BN-PBB	.
2. Satok	73	BN-PBB	5,585	2. Sejinkat	90	BN-PBB	3,346
3. Seband	74	BN-PBB	2,194	3. Tupong	90	BN-PBB	5,761
4. Muara Tuang	78	BN-PBB	3,441	4. Satok	72	BN-PBB	4,522
5. Semera	72	BN-PBB	835	5. Asajaya	74	BN-PBB	3,136
6. Gedong	51	Maju-Permas	1,140	6. Muara Tuang	54	BN-PBB	8,272
7. Saribas	72	BN-PBB	1,436	7. Semera	81	BN-PBB	2,340
8. Kalaka	57	Maju-Permas	1,141	8. Sebuyau	55	BN-PBB	2,247
9. Kuala Rajang	68	BN-PBB	1,625	9. Beladin	86	BN-PBB	3,969
10. Matu Daro	82	BN-PBB	1,631	10. Saribas	62	BN-PBB	.
11. Balingian	51	BN-PBB	1,974	11. Kalaka	64	BN-PBB	6,678
12. Oya	68	Maju-Permas	810	12. Serdeng	75	BN-PBB	1,510
13. Lawas	47	BN-PBB		13. Matu daro	76	BN-PBB	3,495
				14. Dalat	63	BN-PBB	5,615
				15. Balingian	62	BN-PBB	4,654
				16. Lambir	48	BN-PBB	5,635
				17. Lawas	53	BN-PBB	3,643
				18. Berlawai	68	BN-PBB	349
TOTAL	BN - PBB Maju- Permas	11 3		*Unopposed	BN - PBB	18	

TABLE 3
Results of the Chinese-majority constituencies in 1987 and 1991

1987				1991			
Constituency	% Chinese	Result	Majority	Constituency	% Chinese	Result	Majority
1. Padungan	93	BN-SUPP	5,961	1. Padungan	96	BN-SUPP	4,190
2. Stampim	81	BN-SUPP	7,066	2. Pending	92	BN-SUPP	5,537
3. Batu Kawah	57	BN-SUPP	5,821	3. Baut Lintang	88	BN-SUPP	2,434
4. Repok	75	BN-SUPP	915	4. Batu Kawa	70	BN-SUPP	6,616
5. Meradong	49	BN-SUPP	1,237	5. Meradong	52	BN-SUPP	1,905
6. Marling	88	BN-SUPP	9,381	6. Repok	77	BN-SUPP	1,403
7. Seduan	71	BN-SUPP	4,692	7. Dudong	65	BN-SUPP	6,031
8. Miri	69	BN-SUPP	8,273	8. Bukit Assek	97	BN-SUPP	6,353
				9. Bawang Assan	73	BN-SUPP	2,892
				10. Seduan	57	BN-SUPP	5,912
				11. Piasau	59	BN-SUPP	9,063
Total		BN-SUPP 8		Total		BN-SUPP 11	

TABLE 4
Results of the mixed constituencies in 1987 and 1991

Constituency	1987			1991			
	Percent	Result	Majority	Constituency	Percent	Result	Majority
1. Subis	43 MM: 43 D	Maju-Permas	718	1. Limbang	33 MM: 37 D	BN-SNAP	2,994
2. Limbang	38 MM: 37 D	BN-SNAP	387	2. Kidorong	40 C: 41 D	BN-SUPP	1,350
				3. Simunjan	48 MM: 47 D	BN-PBB	2,482
Total	BN - Maju -	SNAP 1 Permas 1		BN - - -	SNAP 1 SUPP 1 PBB 1 (3)		
MM =	Malay/Melanau						
C =	Chinese						
D =	Dayak						

TABLE 5
Results of the 1987 and 1991 Sarawak State Elections

Political Parties	1987		1991	
	Seats Won	Political Parties	Seats Won	Political Parties
BN3	14	BN3	27	
PBB	11	PBB	16	
SUPP	3	SUPP	6	(49)
SNAP		SNAP		
Maju	5	PBDS	7	
Permas	15	Permas	0	
PBDS	0	Parti Negara	0	
DAP	0	DAP	0	
Independents	0	Independents	0	(7)
Total	48		56	

BN3: Consists of Pesaka Bumiputera Bersatu (PBB), Sarawak United People's Party (SUPP) and Sarawak National Party (SNAP)
Maju: Consists of Persatuan Rakyat Malaysia Sarawak (Permas) and Parti Bansa Dayak Sarawak (PBDS). The Maju coalition was dissolved after the 1987 election.

TABLE 6
Changes in Ethnic-Majority Constituencies:
1987 and 1991

Ethnic Group	Majority Seats (%)		Population Voters %	
	1987	1991	1987	1991
Malay/ Melanau	13 (27)	19 (34)	26	27
Dayak	25 (52)	24 (42)	40	40
Chinese	8 (17)	11 (19)	34	33
Mixed	2 (4)	3 (5)	N/A	N/A
TOTAL	48 (100)	56 (100)	100	100

TABLE 7
Total votes obtained by BN3, Permas, PBDS and DAP
in 1987 and 1991 state elections and as a
percentage of the total votes

Year	Parties	Votes Obtained	As a Percent of Total Votes
1987	BN3	249,289	55.24
	PBDS	79,548	17.63
	Permas	64,152	14.22
	DAP	51,341	11.38
1991	BN3	301,067	62.65
	PBDS	104,936	21.48
	Permas	16,159	3.36
	DAP	46,549	9.69

NOTE: As the BN3 parties (PBB, SUPP & SNAP) used a common symbol, there is no accurate way to break down voteeers preference for each individual party.

DATA AND OBSERVATIONS FROM A
SHORT-TERM LIMNOLOGICAL STUDY
OF THE SEKONYER RIVER,
A BLACKWATER TRIBUTARY IN TANJUNG PUTING NATIONAL PARK,
CENTRAL KALIMANTAN, INDONESIA

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ABSTRACT

The riverine ecology of Tanjung Puting National Park has not been studied in any systematic way, despite its importance in a complete understanding of the Park's significant wetlands. A five-month pilot study at selected sites on the Sekonyer River was conducted between July and November 1986 to assess a set of parameters which might be useful in developing a long term limnological investigation of the river system.

The physical and chemical parameters studied included river height, water temperature, water clarity, pH, salinity, dissolved oxygen, tannic acid as well as rainfall, air temperature, humidity, and insolation. The biota was not surveyed in any systematic way during this pilot study, though fish identification by local fisherman was attempted.

There appears to be significant spatial variation for several factors including pH, salinity, and clarity. Temperature and pH are two factors that seemed to vary as a function of depth while temperature clearly varied as a function of time. Finally, these data were collected over two discernible seasons, based on rainfall and stage data. Significant seasonal changes due to increased levels of freshwater flow seems to have occurred including the redistribution of pH and salinity gradients, increased nutrient export, and swamp formation. The data is discussed in regards to the Indonesian Development Programme and current human activity in the Sekonyer watershed.

INTRODUCTION

Little work has been done specifically on the ecology of blackwater rivers. Most information has been part of larger studies which only briefly discuss the probable origin of the coloration of the water, aspects of water chemistry, and the biological impact of those waters (e.g., Janzen, 1974; Whitmore, 1975). A few studies have examined the phenological response by trees in peat swamp forests (themselves blackwater ecosystems; e.g., Anderson, 1983); however, limnological studies on the waters themselves have not been longitudinal and the amount of natural variation has not been measured for various chemical, physical, and biological factors. Such longitudinal data are necessary if statistically falsifiable hypotheses are to be generated and tested with regards to anthropogenic (human-induced) impact. Additionally, most studies on blackwater rivers have been conducted outside of Indonesia. When considering the degree of importance that river systems play in rural Indonesian life and economy, it is clear that a more complete understanding of the characteristics of any natural river system is desirable in the long range plans for Indonesian Development Programmes.

The following is a presentation of a pilot study conducted from July through November 1986 in an attempt to characterize the nature of an Indonesian river from the perspective of it being a blackwater river. The pilot study was to have been extended in 1987; however, personal circumstances have prevented subsequent monitoring. Since the pilot study, human activities within the river system watershed have intensified. Agricultural, logging, mining and tourism activities have increased in scale. River traffic has also increased as the result of these activities. Consequently, the limited data collected may represent the only baseline dataset for the various measures taken.

METHODS

Research site description. The sample sites were located along the Sekonyer River (2° 48' S, 111° 57' E) which along its lower reaches (main branch) and its left tributary forms the boundary to Tanjung Puting National Park (Central Kalimantan) and which along its right tributary drains a watershed from within the National Park (see Figure 1). Sample sites were located on the left (site 3), right (site 1) and the main branches (sites 2; 4-11) of the Sekonyer River.

The river varies in composition from its mouth to its headwaters. Water near the mouth of the river is heavily influenced by the receiving waters (especially during the "dry" season) due to tidal effects. This receiving river, the Kumai River, is an estuarine/saltwater environment. For approximately 10 km., the Sekonyer River is dominated by Nipa palm along its shores. Further

upstream, the water changes in characteristic to that of a blackwater river (Janzen, 1974). For most of its length, the Sekonyer flows as a blackwater river (actually the water is light yellow in color but appears dark through the water column). It is not known whether the upper reaches of the left branch (located some 70 km from the confluence) can be characterized as blackwater. The relief of the terrain at those headwaters is steeper so presumably, water characteristics would change. However, the waters of the right branch are most probably blackwater for most of its length. Based on topographical maps and observations of the area, relief of the study area watershed is very shallow with no terrain over 30 meters above sea level.

The river interdigitates with freshwater and peat swamp forest typical of low relief, ox-bow river systems in this part of Kalimantan. River bottom consists of sandy alluvium with layers of clay and sandy soil overlaid with organic detritus and woody material (fallen trees and branches in various states of decomposition). The river levee soils are characterized by a grey brown clay top soil, and a grey-brown streaked sticky subsoil. Inland in the swamps the soils have a much higher organic content and peat formation is widespread in places up to two meters in thickness (MacKinnon, et al., 1983). The soils of the watershed forest area consist of oligotrophic peats and podzolic soils unusually poor in phosphorus and nitrogen (Whitmore, 1975). Such nutrient deficient soils have been implicated in the development of blackwater rivers (Janzen, 1974).

Tree species and communities associated with the riverine environment are indicative of the particular type of aquatic environment. For example, Nipa dominated forests are associated with estuarine rivers. They apparently cannot tolerate the absence of salt for any length of time or perhaps they are sensitive to the higher acidity found upstream. Alternatively, they are out competed by the lush floral assemblages found upstream. Whatever the limiting factor, Nipa are typically found from the mouth of the river and dramatically disappear some 10-15 km. upstream. The aquatic macrophytes *Pandanus* and "bakong" (Liliaceae) are present in a transition zone, prior to the loss of the Nipa, and then come to dominate the riverine edge environment for the remainder of the river's course upstream. Further inland dense vegetation of *Phragmites* and *Acrostichum* are found with *Melaleuca*. These species eventually blend into peat swamp formations or into the lakeside vegetation with *Crinum*, *Pandanus* and *Eugenia*.

Higher angiosperms are associated with the various swamp forest types that are occasionally contiguous with the river. Peripheral Mixed Swamp Forests are found in about 20% of the Park. They have the greatest diversity of the swamp forests in the tropics (MacKinnon, et al., 1983). Two subtypes dominate: Ramin Peat Swamps and Transitional Swamp Forests. Ramin (*Gonystylus*), a commercial-

ly important species dominate these type of peat swamp forests which occur all around the Park. Ramin Peat Swamps are characterized additionally by *Dyera*, *Tetramerista*, *Palaquim*, *Campanosperma*, *Ganua*, *Mesua*, *Dactyocladus*, and *Alstonia*. Transitional Swamp Forest is characterized by the following species: *Castanopsis*, *Casuarina sumatrana*, *Schima*, *Tetramerista*, *Durio acutifolius*, *Eugenia*, *Ficus*, *Strychnos*, and *Calophyllum*. Roots of trees of both forest subtypes possess the following adaptations to flooding: stilt roots, pneumatophores, and aerial roots.

Climatological data during the study period collected at site 1 are presented in Table 1. Data indicate that August and September were the driest period (based on rainfall and river height) while October represented a transition period and November marked the start of the "wet" season.

Beneficial Uses

The Sekonyer River system is of significant importance to numerous peoples living near or along the boundary of Tanjung Puting National Park. The river system supports a large number of beneficial uses. For example, many people fish the river for a living, their livelihood depending upon the abundance of fish they can catch outside the Park boundaries. Furthermore, small enclaves are located along the river with "ladang" and slash & burn horticulturists living within the watershed of the river. The river is used as a means of transportation for these people and for the forest and river product they harvest. Finally, the river has been and is currently being used by locals in extensive gold mining activities in areas adjacent to the National Park. However, this report was based on data collected prior to the beginning of the gold mining operations which have employed panning and sluicing techniques.

Reason for Approach and Methods.

Sample sites were selected because they were associated with human settlements which might give an indication of limited anthropogenic impact (Sites 2-10) as well as to serve as repeatedly located sample sites over the months of measurements. Site 1 was selected because it enabled frequent sampling of the waters typical of a relatively unimpacted peat swamp forest area. Site 1 was most intensively sampled at least once a month in order to gain an understanding of the time/depth relationships with regard to the parameters of study.

The sampling methods and parameters chosen were limited to those that could provide cost effective in-field measures of environmental status.

Budgetary constraints prevented the utilization of accurate, *in situ*, multiparameter sonde measurements (e.g., Hydrolab). Some equipment was fabricated for water sampling, and measurements at some sites were taken when opportunities to visit the locations permitted their sampling.

Parameters chosen included: temperature (water and air with thermometers), humidity (climate station), pH (Nestor pH pen meter), water clarity (constructed Secchi disk), dissolved oxygen (Winkler's method- Hach), salinity (floating hygrometer -% NaCl), tannic acid (colorametric-Hach), Hydrogen sulfide (colorametric-Hach). Hydrogen sulfide measurements have not been included as the tests conducted suffered from interference and were not accurate. An attempt to measure conductivity of the water was made following the construction of equipment designed to measure electrical resistance of water. However, that equipment has not been calibrated against commercially produced equipment and solutions of known conductivity. These data have, therefore, not been included in this presentation.

RESULTS AND DISCUSSION

Physical Measurements

Temperature. Air temperature maxima measured during the study ranged from 33.5° C to 34.2°C and air temperature minima ranged from 21.5°C to 23.2°C (Table 1). While there appeared to be no major differences in the range of air temperature throughout the period of study, air temperatures did vary primarily as a function of daily insolation, cloud cover and precipitation. The direct and indirect solar heating of the waters produced differences in temperatures according to media, depth and time of day. Figure 2 shows that there were definite differences in air and water temperatures during the middle of the day while these differences were less apparent in the afternoon and early morning. Water acts as a heat sink and remains more or less constant in temperature (especially the deeper waters) as compared to air. Water temperatures of seasonal swamps also appear to be higher in temperature when compared to nearby river channels (Figure 3). This can be explained by the fact that the water in the seasonal swamps is shallower, slower moving and more open to direct insolation.

Stage or water level. During October and November, the water level (evening measurement) at site 1 increased from approximately 100 cm. to 250 cm. This change was indicative of the onset of the wet season, a period marked by increasing levels of rainfall (Figure 4). Tidal effects became reduced as a function

of stage height. Tidal fluctuations (high minus low stage levels) observed during the dry season (when stage height was frequently less than 100cm) varied up to 63 cm. while during the wet season, tidal fluctuation were as low as 5 cm. As overall water level and flow increase upriver, tidal forces have a reduced effect on the fluctuation of those upstream water levels.

Water clarity. Secchi disk readings obtained ranged from 0.4 meters to 3.7 meters. Since secchi measurements are only relative measurements of *in situ* clarity, they cannot be used as a valid measure of turbidity. They are affected by not only what is suspended in the water column (which disperses light) but also by the levels of light available as well as the visual acuity of the observer. But the measurements do give a rough estimate as to clarity and this has meaning with regard to primary productivity and other measures. Secchi measurements revealed that water clarity declined as measurements were made progressively downstream. During the wet season, measures of water clarity at site 1 increased occasionally as the shallow bottom of the river no longer prevented a complete measurement of water clarity (Figure 5).

Chemical Measurements

pH or water acidity. The negative log of the hydrogen ion concentration or pH gives a measure of acidity or alkalinity of the aqueous medium. Values less than 7.0 indicate an acidic medium. For blackwater rivers the pH values are typically less than 7.0. The pH values measured along the river ranged from 7.0 near the mouth of the river to values as low as 3.5 to 3.7 at site 1 (Figure 6). These low values are equivalent in acidity to dilute vinegar. Most upstream values approximated a pH of 4. There appeared to be a slight depth effect as many of the bottom pH values were lower (hence more acidic) than the surface pH values. There also appeared to be a seasonal effect at the sites nearest the mouth of the river. During the dry season, when tidal influences were more pronounced, pH values near the mouth of the river and as far up as site 7 were much higher than upstream pH measurements. During the wet season, when water flow was much more dominant than tidal effects, pH values as far downstream as the river's mouth were as low as many of the upstream sites (approx. pH 4.1). High pH values observed during the dry season near the mouth of the river were due to the buffering effect of the carbonate ion from the estuarine/marine source. This effect is effectively obliterated during the wet season.

Salinity. Salinity values as measured by a floating hygrometer ranged from 0.25 to 2.6% NaCl. During the dry season, salinity values changed significantly

as measurements were made within the Nipa zone of the river. In fact, salinity values measured outside this zone reflected not only the amount of salinity, but the density of water as a function of the dissolved materials present and the water temperature. Values less than 0.5% NaCl were typically measured upstream of the Nipa zone. Organoleptic testing (taste) confirmed the absence of significant salt levels in the water. During the wet season, freshwater flow was so dominant that significant salinity values disappeared entirely, even at the mouth of the river (Figure 7).

Dissolved Oxygen. Dissolved oxygen (DO) levels were typically low in the river channel proper. Rarely did DO levels exceed 1.0 mg/L during the diel cycle. There appeared to be no significant depth or seasonal effect for DO in the river proper. However during the wet season, DO levels in the riverine swamps did increase to levels as high as 3.6 mg/L. This was due to the bloom in algal mats and shrouds over grassy and woody vegetation in the newly formed swamps and seasonal lakes (Figure 8).

Tannic Acid. This was a parameter suspected of having a role in the coloration of blackwater rivers. Formed as the result of the decomposition of tannins in woody and leafy materials, this organic acid is yellow or brown in color and was suspected to be found in high concentrations in the water. However, the values found ranged from 2.4 to 4.0 mg/L only. The highest values were associated with water collected from the river bottom. Too few measurements were made, however, to permit proper characterization of this parameter.

Biological Measurements

Vertebrates. Fish. Limited seining was attempted in the Camp Leakey area (site 1). Direct observations by snorkling were also made over the course of the study. Visits were made to local fishermen and fish markets for help in identification of fishes found in the Sekonyer River and in nearby rivers. Fishes were photographed and shown to local fishermen. Table 2 lists the local names and families of fishes occurring within the Sekonyer River based on direct observation and/or confirmation by experienced local fishermen. Many of the fish show adaptations to waters with low dissolved oxygen levels including those with accessory respiratory organs and suprabranchial cavities (e.g., Clariidae [labyrinth catfish] and Channidae [snakeheads]). Over 23 families of fishes are known to inhabit the local waters including the well-known and endangered Dragonfish or Arwana (*Scleropages formosus*). Many more smaller and less commercially important species exist as well.

Amphibians. Janzen (1974) has postulated the hypothesis that humic acids, such as tannic acid, which cause the water's acidity and dark color are also toxic to biological systems and limit the biodiversity of blackwater rivers and their surrounds. Amphibians were not sighted within or along the river and swamps, perhaps because they do not tolerate highly acidic or toxic conditions and/or because they were not easily observed. Fishermen did report that some fish species will feed on frogs.

Reptiles. Several prominent reptiles do inhabit the Sekonyer River including the Bronea river turtle (*Trionyx cartilagineus*), the false ghavial (*Tomistoma schlegeli*), the Estuarine crocodile (*Crocodilus porosus*), the river monitor (*Varanus salvator*) and the Mangrove cat snake (*Boiga dendrophila*). Crocodilians are occasionally seen sunning on the shore of floodplain lakes or on mats of riverine vegetation while monitors and river turtles are commonly seen on shore or underwater.

Birds. Over 200 species of birds are known to exist in Tanjung Puting National Park. Of these, 160 have been sighted in swamp forest (Nash & Nash, 1988) which include immediate riparian growth along the river, alluvial swamp forest, and past basin margins (true peat swamp was not surveyed). Numerous birds are known to occupy the riverine niche including stork-billed kingfishers (*Pelargopsis capensis*), darters (*Anhinga melanogaster*), whistling ducks (*Dendrocygna arcuata*), bitterns (*Dupetor flavicollis*), herons (*Ardea sp.*), egrets (*Egretta sp.*) and many others. Many of these birds are migratory and use the wetland resources of Tanjung Puting only seasonally.

Mammals. Several mammals do utilize resources along the Sekonyer River including the orangutan (*Pongo pygmaeus pygmaeus*), Proboscis monkeys (*Nasalis larvatus*), Crab-eating macaques (*Macaca fascicularis*), flying lemurs (*Cynocephalus variegatus*), and otters (*Lutra sp.*).

Invertebrates. No surveys of the invertebrates were made during this pilot study. Limited examination of the benthos near Site 1 suggested that the woody and leafy material which covered the white sandy river bottom was essentially devoid of any large invertebrates. Most of the invertebrates were observed on riparian vegetation, especially on the floating mats locally called "batakan." Comprised of a broad-leaf Liliacea and *Pandanus*, these batakan communities teem with arachnids, centepedes, and numerous insect species. Invertebrates were not usually observed on the water surface in the river channel proper. This is not surprising as many fish species are carnivorous and/or omnivorous. When arthropods accidentally fall into the water, they are quickly consumed. Vaas (1952) observed that predatory fish were very abundant in Borneo. It is presumed that near the mouth of the Sekonyer River, prawns and prawn larvae

become part of the invertebrate assemblage as this particular fishery is extremely viable in Kuami Bay and river.

Plants. Periphyton. Blackwater rivers are typically considered to be dystrophic ecosystems, that is, primary productivity within their own water column is limited or absent as compared to streams and lakes elsewhere which may be oligotrophic to eutrophic. Blackwater rivers are highly limited in macronutrients such as phosphorus (as phosphates) and nitrogen (as nitrates). Additionally, the coloration of the water column filters light rapidly denying photosynthetic opportunities to attached algae. Therefore, periphyton growth is extremely limited and is one of the reasons why oxygen levels are so low. Another reason is that imported allochthonous material place a significant chemical oxygen demand (COD) and biological oxygen demand (BOD) on already low dissolved oxygen levels. Periphyton is observed growing on tree limbs or other organic substrates when these features are submerged within the first couple of feet of water. Periphyton growth has also been observed in seasonal floodplain lakes and swamps following the submergence of nutrient materials (fruit, animal droppings). While these nutrients are available, thick mats of algae form in shallow waters during which time the oxygen levels rise relative to the nearby river channel during the middle of the day.

Higher Plants. Riparian vegetation is used in defining the ecological zones along the river. Nipa palms, *Pandanus* and broad-leafed Liliacea dominate the riverine landscape. Up river and scattered between and behind the lush plants and "batakan" are dozens of tall woody trees such as *Eugenia*, providing habitat for birds and sleeping sites for proboscis monkeys and crab-eating macaques. Many of these trees have evolved adaptations for tolerating or avoiding the negative effects of flooding (anoxia-Hook, 1984; salinity-Wainwright, 1984) including stem hypertrophy, knees and pneumatophores, metabolic changes in respiration, chloride detoxification, and high ion uptake. Nevertheless, these trees also suffer from the effects of time and slowly begin to fall towards the river. Eventually, the trees come into contact with the water and may either become submerged on its own or cut by local fishermen or others to eliminate potential hazards for river travel. The effect of this has been that the woody remains of tree canopies have collected underwater, stacked up one upon another. The decomposition of this wood, like other organic matter, is inhibited by the limited activity of decomposing bacteria.

The "Batakan." As a complex community of plant and animal populations floating on a one meter thick mat of buoyant organic material, the "batakan" will eventually choke off a river as it grows away from the edge of the river and meets in the middle. Most commonly, increased river flow and height during the

wet season pull the rip the batakan from its attachment points and small and large chunks of these communities float downstream until they get caught along the edge of the river and begin to collect. Aggregated "batakan" can block river traffic for up to hundreds of meters in areas where the problem is not managed regularly. Boat captains and crew either "walk" their craft over the mat of material or they must work for hours or days cutting through the mat and open the river channel. Frequently, these floating "island" communities can be observed drifting out into Kumai Bay providing evolutionary biologists direct evidence of rafting.

DISCUSSION

The results presented are preliminary. Further data collection, employing more sophisticated in situ and laboratory measurements is needed to provide a more complete range of the natural and anthropogenic variations of measured parameters over the entire year. The biota of the river system has not been systematically studied, and this important sampling activity is also needed. Data collected during one field season is not sufficient to draw any far reaching conclusions. However, the data set was taken before significant alterations in the river watershed was made in late 1980's, particularly in the gold mining region of Aspai. Therefore, some of the observations and inferences made may have some value in determining further directions of study, possible wetlands management strategies and

1) **Seasonal changes.** There appears to be a number of significant physical, chemical, and biological differences as a function of season (at least within the five month period which have been examined). Rainfall and river height are clearly important physical factors which influence such phenomena as swamp development, transport of nutrients, tidal effects, and timing of reproductive behavior of fishes and other animals of the river and swamp environment. The seasonal development of swamps and floodplain lakes provides nutrient enriched refuging habitats for species that benefit from such microniches. According to many fisherman in the area, most of the species of fishes of the Sekonyer River system reproduce during the wet season and do so in swamps and floodplain lakes that are formed during this period. Interestingly, Table 1 illustrates the ameliorating effects of the Sekonyer River watershed regarding the delay between the lowest amount of rainfall (August - 40.3 mm) and the lowest river height (September - 83.9 cm.).

The increase in freshwater flow during the wet season seems to have a definite effect in redistributing the gradients of pH and salinity. The former

parameter is a dominant component of the flow from upstream and the latter parameter is a dominant component of the estuarine environment of the receiving stream. Thus during the wet season, acidity at the downstream sites increases while salinity decreases owing to the reduced competitive effect of the tide. During the dry season (August and September), river flow is almost entirely due to tidal effect.

2) **Depth changes.** From measurements made during the pilot study, there appears to be a depth related effect with regard to temperature and pH. Additionally, from the limited testing for tannic acid, it is suggested that there is a slight elevation in tannic acid levels as a function of depth. This would be due to the increased concentration of humic material found on the bottom of the river, especially during the dry season when the flushing effect of the heavy rains was minimal. There may be other parameter that show a depth effect; however, further data collection employing more sophisticated equipment is required. More intense monitoring at sites in the Nipa transition zone during the dry season is suggested.

3) **Diurnal changes.** The most obvious change that took place throughout the course of the day was the change in air and water temperature. Differences in specific heat of water and air affect the solar heating and cooling rates of these two media such that daily surface temperatures are typically higher than bottom temperatures while the reverse is true during the evening, night and early morning. Tidal fluctuations, while more pronounced seasonally in their effect on stage height, were daily and twice daily changes that affected river flow.

Biota

While the Sekonyer River system can be characterized as blackwater, numerous species of fish, reptiles and birds find refuge throughout the many microhabitats that define the system. This is not to suggest Janzen's hypothesis is incorrect. Dystrophic systems do have reduced primary productivity and the effect of released humic acids and other secondary compounds can clearly limit secondary productivity and biodiversity in general. However, the Sekonyer River does seem to be more productive than some of the sites Janzen and others evaluated in other parts of Borneo. This assertion demands future verification in more detailed surveys of the riverine biota and geology.

Indonesia Development Programme. As Indonesia continues to manage long-term development of the outer islands, including Kalimantan, concern for environmental protection have been integrated into the dialog between

government planners and developing interests. Foreign funding has typically required some type of environmental planning and auditing mechanism within the development program. Programs and projects such as Transmigration, hydroelectric dams, road construction, large scale mining, plantations, and light and heavy industry are required by Indonesian law to have Environmental Impact Reports (AMDAL), Assessments or Statements prepared by consultants, though the value of implemented process and prepared documents has sometimes been questioned by the funding community.

One of the problems encountered by planners has been the lack of good baseline data, i.e., information about the environmental system before anthropogenic effects have an impact. With baseline data, it is possible to determine, for example, whether or not the concentration of a contaminant significantly exceeds the natural background levels. Once development begins and environmental contamination has impacted a given system, one is forced to make comparisons with analogous systems. The study of the Sekonyer River can provide useful information to Indonesian planners and wildlife managing agencies who are concerned about the environmental impact of projects being developed within the Sekonyer River watershed. Additionally, the information collected can be used as reference data for more impacted blackwater river systems that share similar characteristics.

Mining near the Sekonyer River. Following the conclusion of the pilot study and over the next several years, the gold rush to the area near Aspai began. Melayu miners and their families set up camps and staked claims in an area within the Sekonyer watershed but outside the National Park. The nearby forest was cleared away and over the next several years the area took on the appearance of a moonscape with crater after crater of sandy pits marking the miner's claim. Miners used placer techniques such as panning and sluicing. Because of the permeability of the soils in the watershed and the proximity of the gold fields relative to the river, the mining activity has impacted the river system for many kilometers down stream. This impact has included, but may not be limited to, increased turbidity due to runoff and mercury contamination. Mercury has been historically used at placer mining sites and is employed in the separation and amalgamation of gold from the ore. Its association with acidic waters makes it a contaminant of concern as acidification can promote the transformation of elemental mercury to methylated mercury, a form that can be assimilated into the biota and biomagnified through the food chain.

The extent and severity of this latter contaminant has not been characterized; however, water samples taken by an independent researcher has indicated the presence of mercury in the water column and in aquatic macrophytes. This

finding is of local concern for human health reasons as well as environmental ones. If the impact is significant and can not be mitigated, there is a chance that many of the river's beneficial uses will be compromised.

Beneficial Uses of the Sekonyer River.

Twenty four (24) beneficial uses (Table 3), designated by the State of California, have been identified within the regional planning structure for the waters of the state (Cal RWQCB, 1994). The identification of beneficial uses serve to establish appropriate water quality objectives and programs necessary to ensure the protection of those uses. The beneficial uses along with the water quality objectives form water quality standards. In the United States, the Clean Water Act mandates standards for all surface waters including wetlands.

While local or national water quality standards have not been adopted for the Sekonyer River, the identification of beneficial uses can also indicate the importance of the waterbody as a resource to the managing governing agencies. By assessing the status of a particular beneficial use, government can focus resources needed to improve its quality should that resource be threatened or impacted.

Of the 24 beneficial uses totally listed for California waterbodies, 18 or 75% are found to be currently existing for the Sekonyer River system. For example, the river is used as a source of drinking water, agricultural water, groundwater recharge, surface water quality maintenance, navigation, swimming and fishing, boating and sightseeing, and commercial fishing. Additionally, the river supports the following ecosystem beneficial uses: warm water (tropical), estuarine, wetlands, marine, and terrestrial. Finally, the river supports the following areas or habitats: those of special biological significance (the National Park), those necessary for the survival and successful maintenance of plants and animals considered rare, threatened or endangered, those necessary for migration, and/or acclimatization between fresh and salt water, and those that are suitable for reproduction and early development of fish. Though not currently used, aquaculture is a potential beneficial use for certain portions of the Sekonyer River.

When one realizes that most rivers in Southern California support fewer than 12 existing beneficial uses, the value of the Sekonyer River within and around Tanjung Puting National Park becomes apparent.

The Sekonyer River is not unique in the number of beneficial uses that it supports or can potentially support. Other rivers in and around the National Park are similarly important to wildlife. Recognizing these beneficial uses and their status can provide management officials with a rationale for proposing

programs to enhance or improve their quality. As development continues for areas around Tanjung Puting National Park, such efforts are critical to insure the integrity of the Park, i.e., biodiversity, beneficial uses, etc. Further study of the river system is needed to provide quality baseline information which may provide the foundations for the creation of water quality standards and strategies for maintaining high water quality. This must go hand in hand with proper watershed management. Finally, proper delineation of the current environmental concerns, e.g., mercury contamination, is needed to develop rationale steps to mitigate the problem should it be threatening the many current beneficial uses of the river.

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TABLE 1
Climatological Data From Camp Leakey (1986)

Month	Minimum Mean Temperature (°C)	Maximum Mean Temperature (°C)	Humidity (%)	Rain Fall (mm)	River Height (cm)
July	22.4	33.5	93.1	51.4	144.6
August	21.5	33.6	88.1	40.3	98.4
September	21.8	34.2	90.1	134.6	83.9
October	23.2	33.5	94.5	330.8	168.1
November	22.6	33.8	96.1	366.4	238.6

TABLE 2
Fish Observed or Collected by Experience Fishermen in Area

Fish Local Name	Family	Common Name	Foods Eaten	Habitat	Group or Solitary	Reproduction Month(s)
Kapar	Helostomatidae	kigging gurami	Alg; Shr	Grass edge/under bakong	Group	Nov.
Lele	Clariidae	labyrinth catfish	Wrm; Fru	Deep water/under bakong	Group	Nov.
Toman	Channidae	snakeheads	Fish; Frogs	Under wood/under bakong	Group	Sept.
Baung	Arilidae	catfish	Fish; Shr	Deep water/under bakong	Group	Nov.
Sepat	Ospchronemidae	giant gourami	Alg	Grassy edge	Group	Oct. (2x/yr)
Kalingkasa	Osteoglossidae	bonytongues	Fish; Shr	Under wood	Group	Nov.
Puyau	Oryziatidae	rice fishes	Alg	River edge	Group	Oct.
Lais	Schulbeidae	schulbeid catfish	Fish	Water surface	Group	Sept.
Terapu	Chactidae	killifishes	Alg; Shr	Deep water	Solitary	Sept.
Peyang	Cyprinodontidae	killifishes	Shr; Fish	Deep water/under bakong	Group	Oct.
Seluang	Atherinidae	silversides	Shr; Fish	Surface of lake/stream	Group	Nov.
Gabus	Channidae	snakeheads	Shr; Fish	Surface/grassy lakes	Group	Nov.
Belut	Synbranchidae	swamp eels	Shr	Bottom	Group	Aug.
Tembubuk	Nandidae	leaffishes	Shr; Fish	Deep water	Group	Sept.
Junju	Luciocephalidae	pikehead	Shr; Fish	Surface in bakong	Group	Nov.
Telan	Mastacembelidae	spiny eels	Alg; Shr; Fish	Under bakong	Solitary	May
Haruan	Channidae	snakeheads	Shr; Fish	Surface/grassy lakes	Group	Nov.
Mehau	Channidae	snakeheads	Shr; Fish	Surface/grassy lakes	Group	Nov.
Runtu	Channidae	snakeheads	Shr; Fish	Surface/grassy lakes	Group	Nov.
Kepuhung	Siluridae	glass catfish	Ins,	Surface	Group	?
Kakap	Anabantidae	climbing perches	Shr	Surface	Group	Sept.
Kerandang	Belontiidae	fighting fish	Fish	Swamp (S. Bulut)	Group	Sept./Oct.
Senggtringan	Pangasiidae	giant catfish	Shr,	Deep water	Group	Apr.
Kipar	Scatophagidae	scats	Shr,	Estuarian	Group	Sept.
Sumpit	Toxotidae	archer fish	Ins; Crust	Estuarian	Group	Sept./Oct.
Baga-baga	Ambassidae	glass perches	Shr; Ins	Estuarian	?	?
Dendolang	Hemiramphidae	halfbeaks	Shr; Ins	Surface	Group	Sept./Oct.

TABLE 3
List of Beneficial Uses of Inland Surface Waters

Beneficial Use Abbreviation/Name	Beneficial Use Definition	Currently Existing in Tanjung Puting
MUN/Municipal & Domestic Supply	uses of water for community, military, or individual water supply systems including, but not limited to, drinking water	Existing
AGR/Agricultural Supply	uses of water for framing, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing	Existing
PROC/Industrial Process Supply	uses of water for industrial activities that depend primarily on water quality	Does not exist
IND/Industrial Service Supply	uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization	Existing (mining)
GWR/Ground Water Recharge	uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting saltwater intrusion into freshwater supplies	Existing
FRSH/Freshwater Replenishment	uses of water for natural or artificial maintenance of surface water quantity or quality (e.g., salinity)	Existing
NAV/Navigation	uses of water for shipping, travel, or other transportation by private, military, or commercial vessels	Existing
POW/Hydropower	uses of water for hydroelectric generation	Does not exist

Beneficial Use Abbreviation/Name	Beneficial Use Definition	Currently Existing in Tanjung Puting
REC-1/Water Contact Recreation	uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, or fishing	Existing
REC-1/Non-contact Water Recreation	use of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or esthetic enjoyment in conjunction with the above activities	Existing
COMM/Commercial & Sports Fishing	uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes	Existing
AQUA/Aquaculture	use of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes	Does not exist (has potential)
WARM/Warm Freshwater Habitat	uses of water that support warm water ecosystems including, but not limited to, preservation of enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates	Existing
COLD/Cold Freshwater Habitat	uses of water that support inland saline water ecosystems including, but not limited to, preservation or enhancement of aquatic saline habitats, vegetation, fish, or wildlife, including invertebrates	Does not exist

Beneficial Use Abbreviation/Name	Beneficial Use Definition	Currently Existing in Tanjung Puting
SAL/Inland Saline Water Habitat	use of water that support inland saline water ecosystem including, but not limited to, preservation or enhancement of aquatic saline habitats, vegetation, fish or wildlife, including invertebrates	Does not exist within known reaches of river
EST/Estuarine Habitat	uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds)	Existing
WET/Wetland Habitat	uses of water that support wetland ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife, and other unique wetland functions which enhance water quality, such as providing flood and erosion control, stream bank stabilization, and filtration and purification of naturally occurring contaminants	Existing
MAR/Marine Habitat	uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, shellfish, or wildlife (e.g., marine mammals, shorebirds)	Existing
WILD/Wildlife Habitat	uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources	Existing
BIOL/Preservation of Biological Habitats	uses of water that support designated areas or habitats, such as Areas of Special Biological Significance (ASBS), established refuges, parks, sanctuaries, ecological reserves, or other areas where the preservation or enhancement of natural resources requires special protection	Existing (Tanjung Punting National Park)

Beneficial Use Abbreviation/Name	Beneficial Use Definition	Currently Existing in Tanjung Puting
RARE/Rare, Threatened, or Endangered Species	uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered	Existing (e.g., Arwana)
MIGR/Migration of Aquatic Organisms	uses of water that support habitats necessary for migration, acclimatization between fresh and salt water, or other temporary activities by aquatic organisms, such as anadromous fish	Existing
SPWN/Spawning, Reproduction, and/or Early Development	uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish	Existing
SHELL/Shellfish Harvesting	uses of water that support habitats, suitable for the collection of filter-feeding shellfish (e.g., clams, oysters, and mussels) for human consumption, commercial, or sports purposes	Does not exist within known reaches of river
Existing Beneficial Uses		
MUN, AGR, IND, GWR, FRSH, NAV, REC-1, REC-2, COMM, WARM, EST, WET, MAR, WILD, BIOL RARE, MIGR, SPWN		
Potential Beneficial Uses		
AQUA, PROC.		

Figure 1- Sample Stations

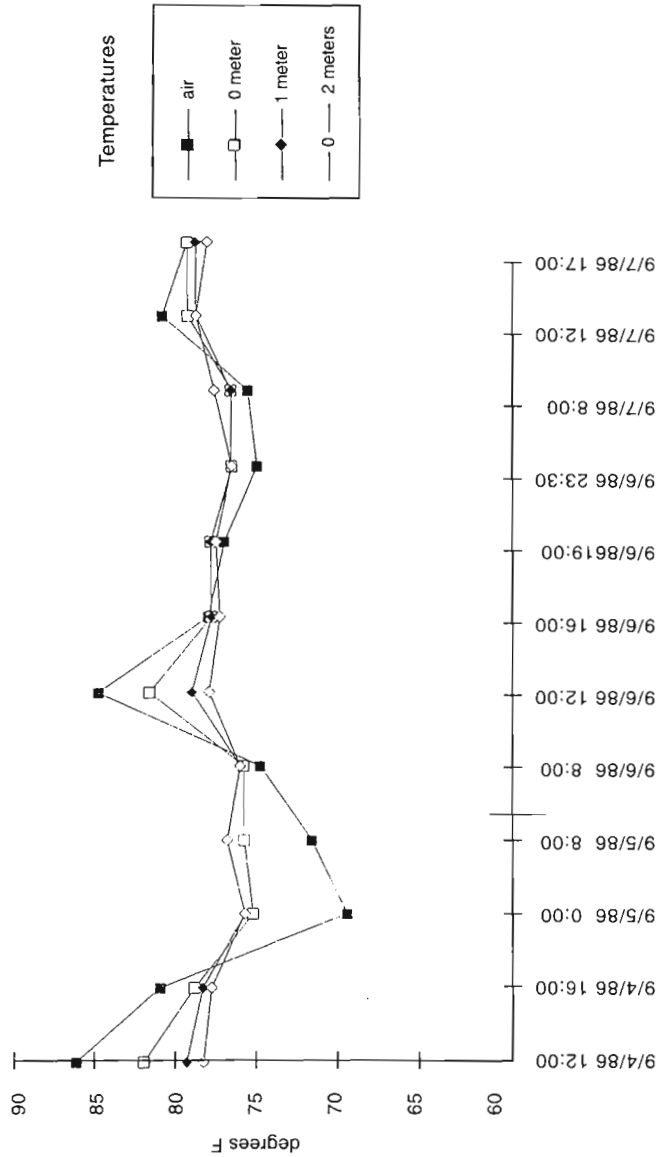
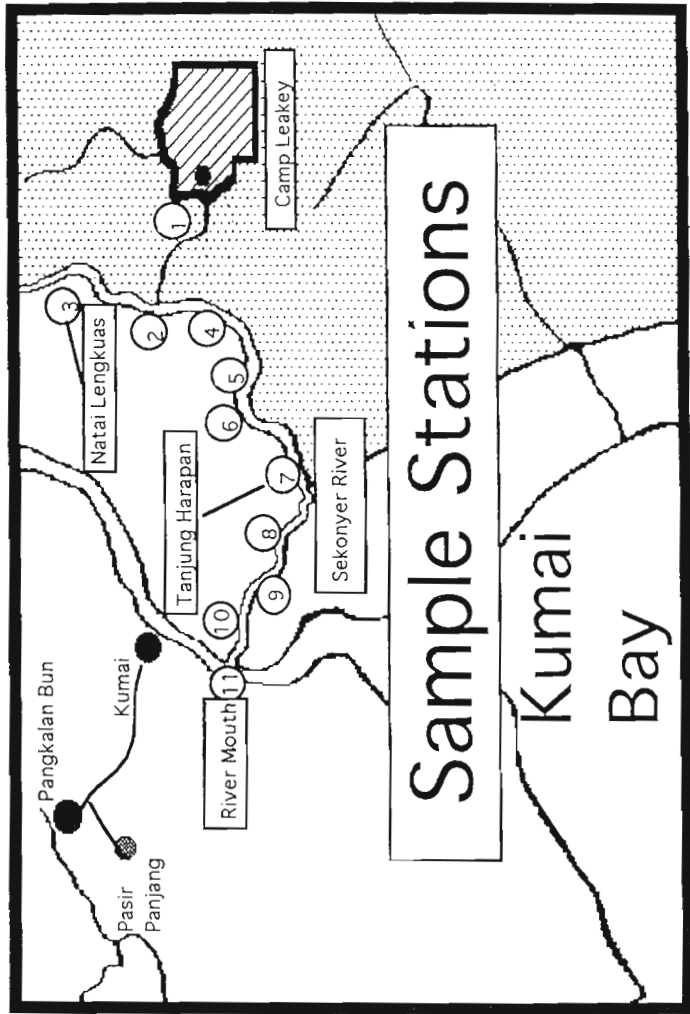


Figure 2- Air and Water Temperatures at Site 1 (Sept 4-7, 1986)

Figure 3- Water Temperature Differences Between Seasonal Swamp and River Channel at Site 1.

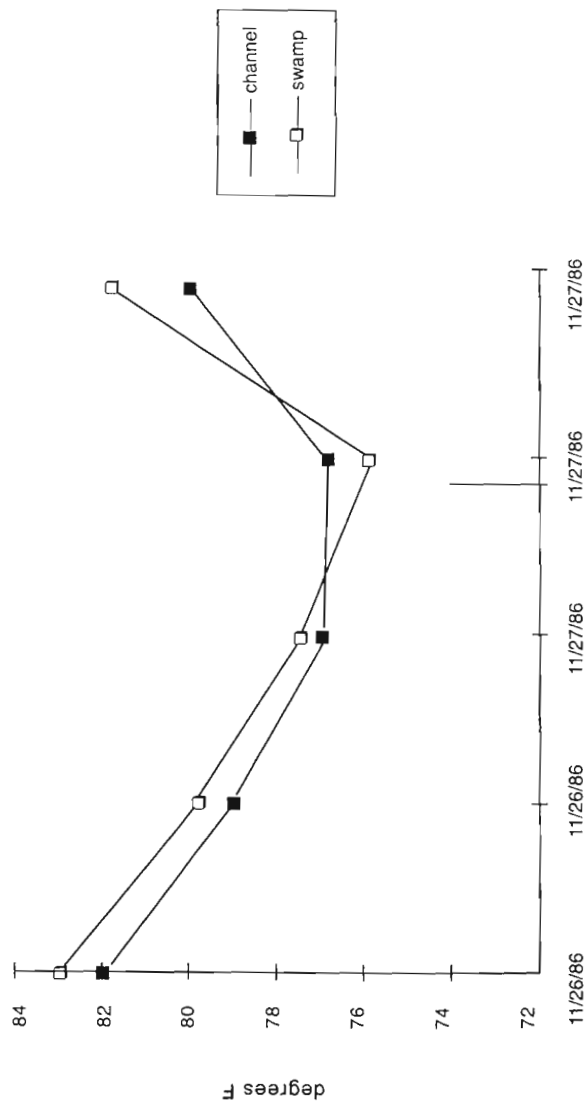


Figure 4- Average Stage Height of Right Branch of Sekonyer River at Camp Leahey (July through November 1986)

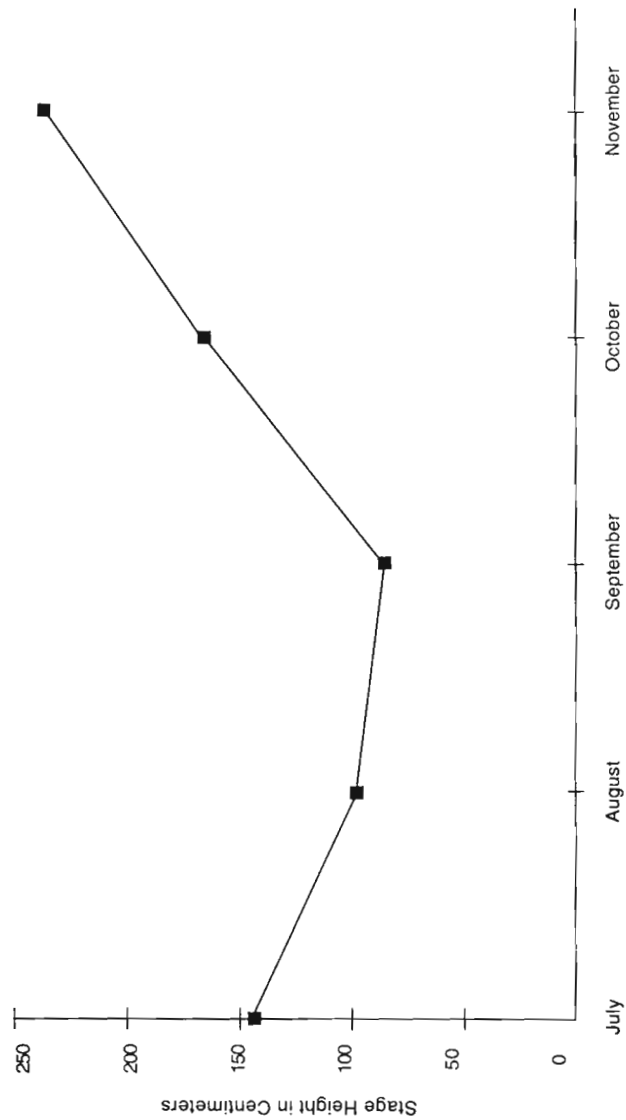


Figure 5- Variation and Difference in Water Clarity (Secchi) of the Sekonyer River as a function of Location and Season

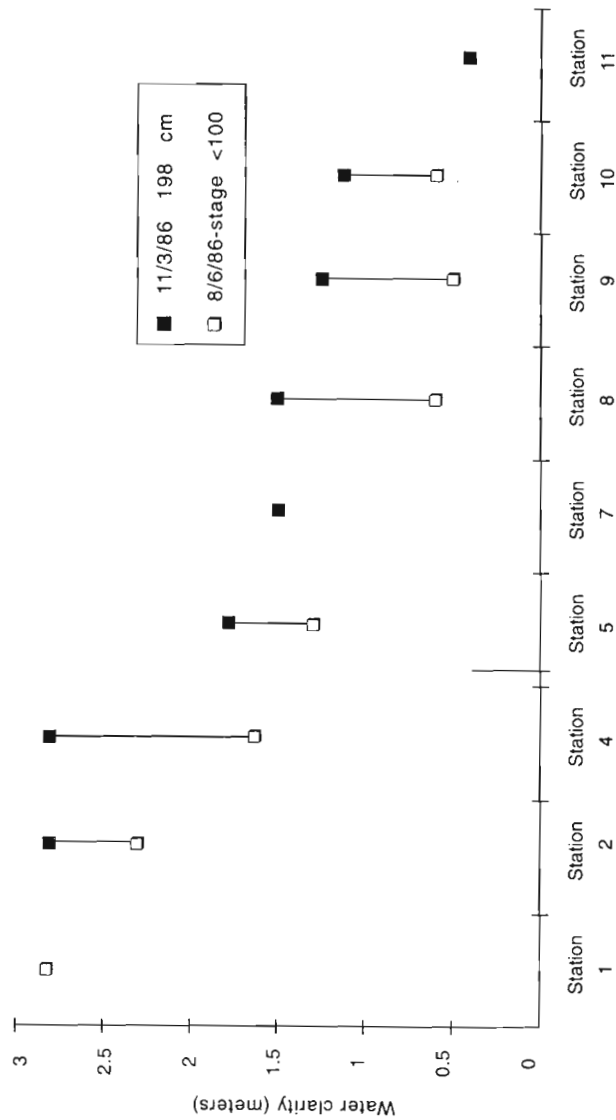


Figure 6- Variation and Difference in pH of the Sekonyer River as a function of Location and Season

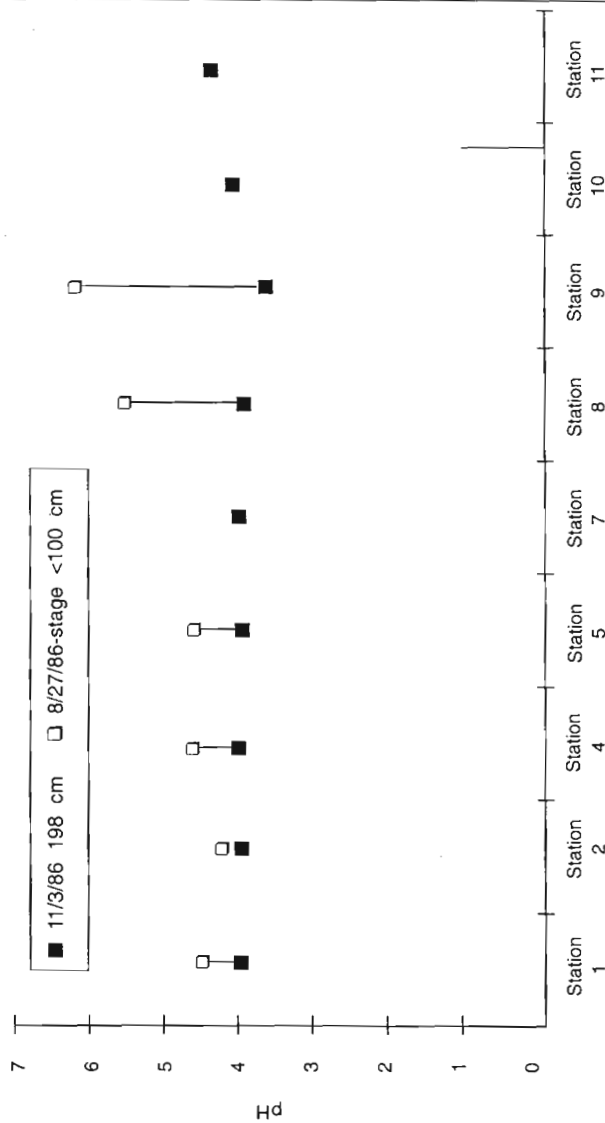


Figure 7- Variation and Difference in Salinity (hygrometer) of the Sekonyer River as a function of Location and Season

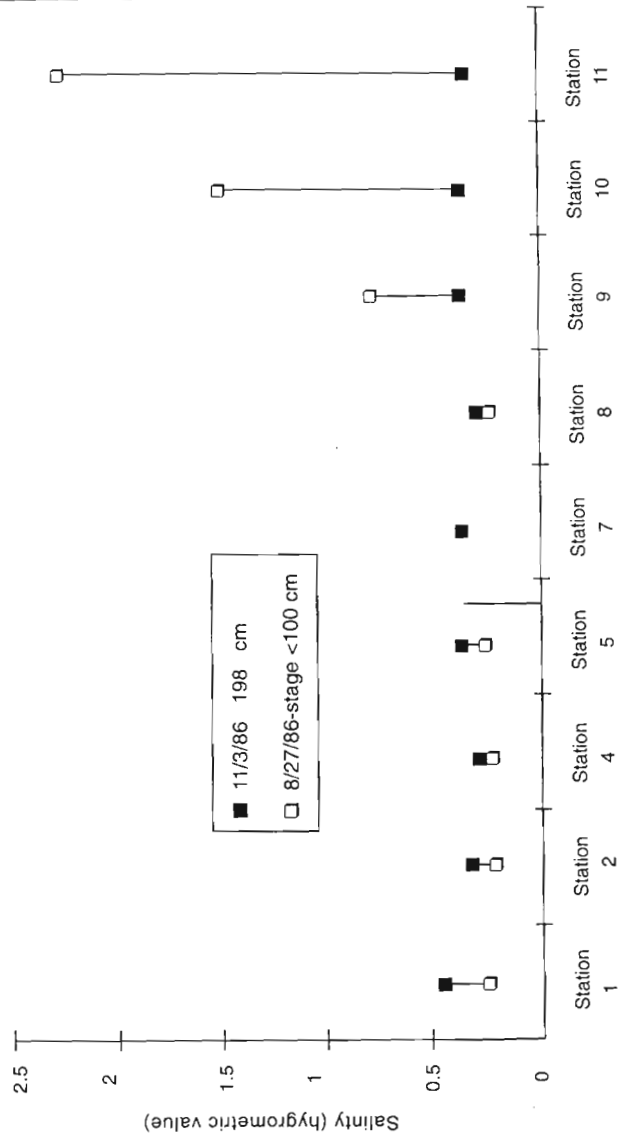
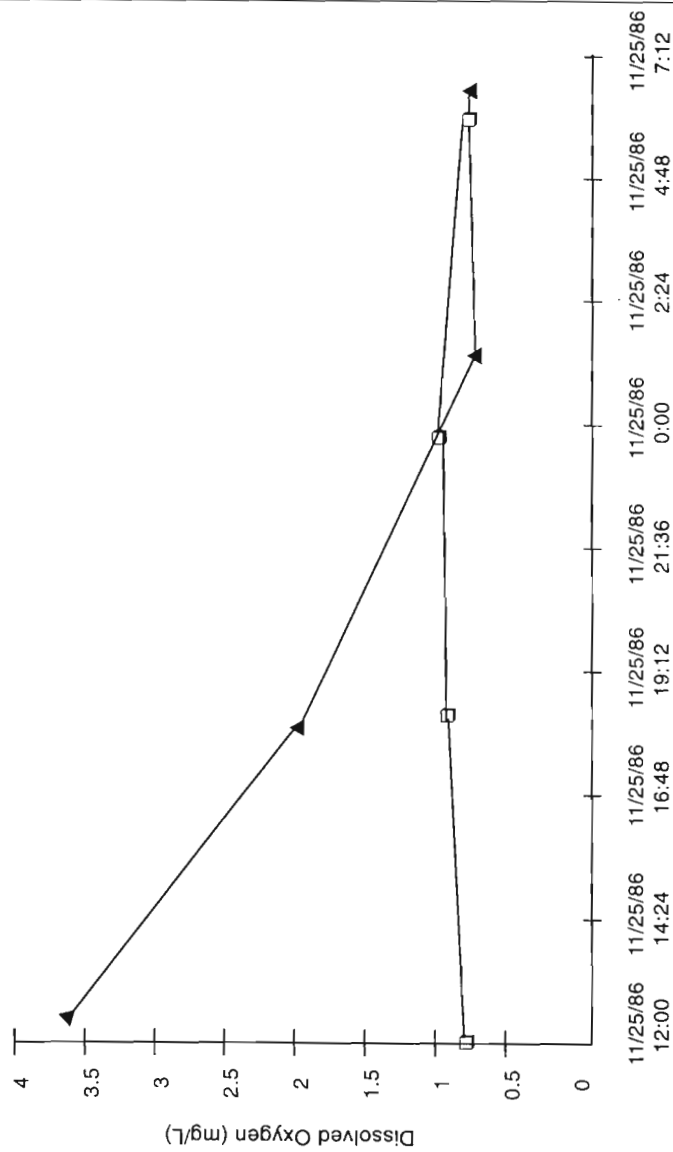


Figure 8- Difference in Dissolved Oxygen levels (at surface) Between River Channel and Shallow Seasonal Swamp at Camp Leakey (November 1986)



THE CULTURE & CONSERVATION PROGRAM
IN THE KAYAN MENTARANG CONSERVATION AREA,
EAST KALIMANTAN, INDONESIAN BORNEO

BERNARD SELLATO

This brief paper originates in a draft paper read at the *Seminar Ilmu-ilmu Budaya dan Sosial dan Penelitian Perancis di Nusantara* held in Jakarta in November 1993, followed by a revised version in French for publication in the proceedings of that meeting. The present enlarged and updated English-language version provides an overview of the *Culture & Conservation* (C&C) research program's conceptual background, its field activities in the Kayan Mentarang Conservation Area (KMCA) of East Kalimantan, and its output since its inception in 1990 as a sub-project of the Kayan Mentarang Conservation Project (KMCP) of the World Wide Fund for Nature Indonesia Programme (WWF/IP) and the Directorate General of Forest Protection and Nature Conservation (PHPA). A list of research reports produced and communications delivered is appended, and so is, for information, the synopsis of a book in preparation.

Culture & Conservation History (1990-1994)

Since 1990, the Culture & Conservation program has been focusing on the question of the interface of society and the natural environment. This question concerns several interdependent topics, among others: the protection of the natural environment (the tropical rainforest), the protection of the traditional cultures of local (Dayak) communities, and the improvement of natural resource management.

C&C originated in a proposal entitled "Oral Tradition in Kalimantan", which aimed at studying all forms of oral tradition, particularly oral literature, history, and traditional legal systems. That proposal's main goals were to document and salvage a rich corpus of literature and to help uphold traditional rights over land and resources. Eventually, it was decided to implement this project, under its current name, in the framework of the KMCA managed by the WWF/IP, in conjunction with efforts to protect the environment. The C&C research program

got off the ground at the end of 1990 with a grant from the Ford Foundation, as part and parcel of the wider KMCP.

The KMCA (1.6 million hectares), one of Southeast Asia's largest protected areas, comprises mostly primary rainforest. However, several dozens of hamlets belonging to various Dayak groups (mainly Kenyah, Lun Daye, and Punan) are located within the protected area or in close proximity. The KMCA, originally a nature reserve, is in the process of being transformed into a national park.

The necessity of carrying out studies on these Dayak groups' cultures appeared essential in better understanding of the modalities of interaction of these societies with the forest; in taking into account their traditional knowledge in the management of the nature reserve and in the planning of conservation; and in the elaboration of protection strategies involving the local communities' active participation. In this context, the success of nature protection efforts depends on these traditional cultures' survival. It is crucial to enable these cultures, threatened by outside factors, to maintain their vitality and, mostly, their traditional practices of land and natural resource tenure.

C&C has gone through two two-year phases (1991-92 and 1993-94). Phase 1 focused on four main goals: to collect the local groups' oral tradition, particularly their knowledge and perceptions of, and their attitudes towards, their natural environment; to identify past and present interactions between man and the forest; to demonstrate the existence of a mode of land tenure based on a traditional legal system, and its validity in designing nature protection; and to train Indonesian, particularly Dayak, researchers to carry out these studies.

After a period of interdisciplinary training, C&C organized a dozen field studies, carried out by Indonesian scholars and students in various but interdependent disciplines that bridged between ecology and anthropology. The outputs of these studies have allowed for the designing of new strategies actively involving the local communities in efforts to protect the environment -- among others, the participatory cartography of natural resources. These outputs show that, in order to facilitate nature protection, it would be appropriate to guarantee the survival of traditional practices of land tenure and natural resource management.

In Phase 2, objectives basically remained the same, but field studies were recentered on three main themes: linguistics and oral literature; land tenure and traditional legal systems; and regional history of societies and the forest. An interdisciplinary workshop was held in Samarinda in June 1993, bringing together about 45 participants -- a smaller workshop on oral literature was held in Pontianak, in collaboration with the Institute of Dayakology. Subsequently, about

thirty scholars and students (of which three-quarters were Indonesians) spent three to six months in the field in 1993.

The last leg of Phase 2 was devoted to a review of both phases by a team including Michael R. Dove (East-West Center) and Tri Nugroho (LATIN, an Indonesian NGO), and to the preparation of publications. Activities of C&C senior staff also included the follow-up assistance to past and present C&C or KMCP researchers, staff, and associates in their academic pursuits, research proposals, grant applications, and publications projects.

Beyond the C&C program, the KMCP has carried out other activities in the nature reserve, including a nature-protection awareness campaign and video documentation. KMCA and C&C activities have led to a proposal for the zoning of the future national park.

Culture & Conservation Output (1990-1994)

C&C has so far produced 39 research reports. A significant number of these studies have (or will) become S1 (B.A.) or S2 (M.A.) theses in several (Indonesian and foreign) universities, and several doctoral theses (foreign Ph.D. as well as Indonesian S3) focused on the KMCA are either in progress or projected.

The editing of research reports has been carried out with the invaluable assistance of Drs. G. Simon Devung -- himself currently finishing a S2 program in anthropology at the University of Indonesia (Jakarta) -- and an editorial assistant. This output will soon (mid-1995) be released as individual in-quarto volumes (37 volumes; see Annex 1) meant for dissemination to relevant government agencies, donor agencies, project partners (universities and research institutions), libraries, scientific journals, regional NGOs, community leaders, and the local source communities in KMCA.

Article-length versions of the field reports will be prepared for publication in scientific journals. Others will be appropriately prepared to fit specific targets (government circles, NGOs, the press, training programs). Abridged and easily readable bilingual documents based on these reports will be handed back to the source communities (collections of oral literature, ethnic histories, dictionaries of vernaculars, maps). The dissemination of research results to source communities -- an important component of the C&C program -- is viewed as a crucial contribution to the preservation of their ethnocultural identity.

A number of papers have been delivered to various international conferences, in Indonesia and abroad, by C&C participants, KMCP staff, and associated

researchers (see Annex 2). At the Second and Third Biennial International Conferences of the Borneo Research Council (Kota Kinabalu 1992 and Pontianak 1994), C&C researchers, along with KMCP staff, were given the opportunity to get together again and, being present in most sessions, to give a show of force. It seems that, generally, they made a good impression.

Some sixty percent of the C&C reports have been abridged and prepared for inclusion in a Culture & Conservation book. This volume of about 400 to 500 pages, strictly devoted to C&C research output, is to be published in two editions (Indonesian and English; see synopsis in Annex 3). For the English edition, the UNESCO's Man and Biosphere Series is being considered. For the Indonesian edition, publishers in Jakarta will be approached, but they might not be interested. As it would be too bad to renounce disseminating an Indonesian edition, suggestions from readers of this *Bulletin* will be welcome.

A film on Kayan Mentarang shot by the Sejati Foundation was released in an English-language version (*Dayak and Biodiversity*) in 1994. And a video movie shot in Kayan Mentarang on traditional pottery (B. Sellato & P.-Y. Manguin's *The Last Potter of Kalimantan*) has been edited in France, to be released in 1995 (see Annex 1).

Culture & Conservation Projected Activities 1995-1996

In Phase 3 (1995-96), the project's presumably sound principles remain the same. Goals and strategies, however, will be slightly reoriented according to recommendations issued by three independent teams of reviewers. A C&C advisory board bringing together a group of prominent Indonesian and foreign scholars and/or institutions will be established. Indonesian institutional members will include LIPI (National Science Research Institute), Puslit Arkenas (National Archaeological Research Center), PPPB (Center for the Promotion and Development of Language), Universitas Indonesia (Jakarta), Universitas Mulawarman (Samarinda); while foreign members may include several research institutes and universities worldwide (USA, Europe, Australia, Japan, among others). All C&C activities will be coordinated by a Director of C&C within the wider KMCP of WWF/IP and will include the following:

An **Interdisciplinary Regional Research Program (IRRP)** will be designed and implemented to investigate, in an historical perspective, into the complex forms of interaction between people (the local communities of KMCA), their cultures (subsistence activities, material cultures, legal systems, beliefs, attitudes), and their environment (the tropical rainforest; see a brief presentation in Annex 4). Drawing

on inter-related disciplines, and bridging the natural and social sciences, this program will lead to a reconstruction, at the regional level, of the history of people and their natural environment, and of their interactions, with special emphasis on the history of traditional systems of subsistence and other forms of resource use. Such a reconstruction will undoubtedly offer new insights into several major issues in the natural and cultural history of Southeast Asia. And, as in earlier phases of C&C, it will have an important bearing on the design of conservation management strategies. In a first step, a core group of senior researchers in the various concerned fields will get together in Jakarta and draft an integrated research project. This project will start under the C&C program and might eventually be turned into a proposal for a major international research project. Besides C&C's research program, the KMCP, with its field station in the middle of the primary rainforest and its reliable infrastructure and logistics -- accommodation, transportation, and field assistance -- covering several remote districts, will also very soon be able to offer comprehensive research facilities to interested scholars and students.

Dissemination and publication of the output of C&C research will be carried out from Samarinda. Editorial policies aimed at producing documents in forms adapted to the various targets will be designed. Targets include the national and international scientific communities, the press, government circles, NGOs, community leaders, source communities at large, and project staff. Scientific books based on C&C research results will also be published, with special fund-raising for this purpose. A newsletter will be designed for distribution among the local communities. First priorities in 1995 will be the finalization of the Culture & Conservation book (in Jakarta) and of the ethnographic movie on traditional pottery (in France). By mid-1995, C&C will offer for sale at cost any individual reports or complete sets to interested parties. Please contact the C&C officers. Any party (foundation, organization, company) willing to offer assistance and sponsor the publication of individual volumes -- e.g., dictionaries of vernaculars, bilingual collections of oral literature -- is welcome.

A Kalimantan (Culture and Nature) Center will be established in Samarinda, as early as mid-1995, by the Foundation for Research and Development in Kalimantan (Yayasan Pengkajian dan Pengembangan Borneo, YPPB), in collaboration with C&C and with funds from the renewed Ford Foundation grant. It will house a small multi-media documentation center on Borneo -- book library, audio library (music and oral literature), and video library -- and provide the public with easy access to it. It will also receive the C&C written and sound archives. A meeting room will be used for seminars and training. One or several small local folk museums, located within or nearby the KMCA, will be designed and established in collaboration with the local communities (see Kreps 1992).

They are expected to contribute to the maintenance and enhancement of ethnocultural identity.

Seminars and training sessions will be designed and organized, at the Kalimantan Center and in the field, on various topics related to C&C activities in the KMCA, and for various target groups -- junior researchers, WWF and associated field personnel, community leaders from the KMCA, and other concerned parties (district-level government officials or NGO personnel). The Kalimantan Center will be able to offer training courses and consulting services to interested parties working in Borneo or in other regions of Indonesia.

Community development projects at local level will be launched to deal with the salvage, preservation, and development of traditional cultural handicrafts and oral traditions in the KMCA (see Sellato 1995b). Specialized foundations will be called upon to implement these development projects and will collaborate with C&C researchers.

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ANNEX 1

C&C Field Research Reports and Films

FARMING & RELATED TOPICS

- Ir. Dolvina Damus - Pengetahuan tentang varietas padi dan tipe budidayanya pada masyarakat Kenyah hulu Sungai Bahau.
- Indah Setyawati, B.A. - Knowledge and use of rice varieties in Apau Ping, Long Pujungan District.
- Drs. Herculanus Bahari Sindju - Penyiapan dan pemanfaatan lahan dalam praktek perladangan tradisional masyarakat Kenyah Leppo' Ké di Apau Ping.
- Drs. Fredrik Ngindra - Pemenuhan kebutuhan makanan pada suku Dayak Kenyah Bakung.
- Drs. Laurentius Dyson P. - Sejarah perladangan di Long Pua': Studi tentang interaksi manusia dengan lingkungan hutan.

- Ir. Syahirsyah - Suksesi vegetasi, perladangan daur ulang dan pengetahuan masyarakat Kenyah di hulu Sungai Bahau.
- Ir. Sri Endah Sulistyningtyas - Komposisi fauna tanah pada beberapa lahan suksesi setelah perladangan di Apau Ping, hulu Sungai Bahau.

SOCIOLOGICAL & ETHNOLOGICAL STUDIES

- Drs. Fredrik Ngindra - Upacara agama Bungan pada suku Dayak Kenyah Bakung.
- Christianita L. Day - Perubahan sosial dan dampaknya terhadap organisasi pertanian di Desa Long Pujungan dan Long Alango.
- Katja Meyer - Widows and other single-living women in the village of Long Pujungan.
- Bernard Sellato - Four upstream Kenyah settlements in a changing world, Long Pujungan District: A preliminary social and demographic survey.

FOREST PRODUCTS, USES, AND TRADE

- Ir. Martua T. Sirait - Keanekaragaman jenis rotan dan kegunaannya serta pengelolaan sumber daya alam di Desa Long Uli.
- Drs. Blajan Konradus - Jaringan pemasaran gaharu di Kecamatan Long Pujungan dan kawasan Sungai Bahau.
- Drs. Martin Lenjau - Keanekaragaman kerajinan tangan dari rotan serta kegunaannya di Desa Long Alango.

CUSTOMARY LAW AND RIGHTS

- S. Jacobus E. Frans L., B.A. - Hak milik adat atas tanah pada masyarakat Dayak Kenyah di Kecamatan Long Pujungan.
- Angguk Lamis, S.H. - Penguasaan tanah berdasarkan hukum adat pada masyarakat Kenyah Leppo' Ma'ut di Long Alango.
- Concordius Kanyan, S.H. - Pola penguasaan hak atas tanah pada masyarakat Leppo' Ke di Apau Ping.
- Y. Paulus Bunde, S.H. - Pola penguasaan hak atas tanah pada masyarakat Kenyah Bakung di Long Apau Baru.

ETHNOHISTORY, ARCHAEOLOGY & ETHNOARCHAEOLOGY

- Njau Anau - Sejarah suku Kenyah Leppo' Ke dan Nyibun di Kecamatan Long Pujungan.

- Liman Lawai - Sejarah suku-suku Kenyah di Apau Kayan dengan perhatian khusus pada sejarah dan struktur masyarakat suku Kenyah Leppo' Tau.
- Pierre-Yves Manguin - Report on a survey of archaeological sites (included in Sellato's *The Ngorek*)
- Karina Arifin, M.A. - Etnoarkeologi di Kayan Mentarang: Hasil survei arkeologi dan etnografi.
- Dody Johanjaya, Yoga Prima Subandono, Anggara Yonathan - Inventarisasi kuburan tempayan-dolmen di daerah hulu Sungai Bahau.
- Aryandini Novita & Krisprihartini - Analisis temuan alat batu dan gerabah dari Apau Ping 1991-1993.
- Bernard Sellato - *The Ngorek: a survey of lithic and megalithic traditions in the Bahau area, East Kalimantan, and an interdisciplinary sketch of regional history.*

ORAL LITERATURES & MUSICAL TRADITIONS

- Drs. Paternus Hanye' - Sastra lisan pada masyarakat Kenyah Bakung di Long Apan Baru.
- Stephanie H. Morgan, M.A. (Ed.) - Summary of the *Tekena' Sinan La'ing* of the Kenyah Bakung of Long Apan Baru (included in Paternus' Sastra lisan).
- Tekena' Sinan La'ing: Harta kekayaan sastra lisan suku Kenyah Bakung (A treasure from Kenyah Bakung oral literature).
- Angelika Tubun Hulo' - Peranan binatang serta tumbuhan dalam kehidupan dan sastra lisan suku Kenyah Bakung di Long Aran.
- Drs. C. Yus Ngabut - Sastra lisan Kenyah Bakung di Long Apan Baru (tahap kedua).
- Daniel Lawing - Lagu-lagu dan musik rakyat suku Kenyah Leppo' Ma'ut.

LANGUAGES

- Drs. Albert Rufinus, M.A. - Bahasa Bakung di Long Apan Baru: Penelitian awal terhadap sistem kebahasaan.
- Bernard Sellato - The Kenyah dialects of Long Pujungan District, a provisional assessment.
- Dra. Sri Munawarah - Struktur kebahasaan Kenyah Bakung di Desa Long Apan Baru.
- Dra. Ruli Rachmajanti - Sistem kebahasaan suku Kenyah Leppo' Ké di Apau Ping, Kecamatan Long Pujungan.

- Dra. Antonia Soriente - Situasi kebahasaan di Kecamatan Long Pujungan: Suatu studi dialektologi. (1994) [The linguistic situation of Long Pujungan District: a dialectologic study of Kenyah tongues].
- Stephanie H. Morgan, M.A. (Ed.) - Kamus Tribahasa Kenyah Bakung, Bahasa Indonesia, Bahasa Inggeris (with Sri Munawarah).
- Dra. Ruli Rachmajanti - Kamus kecil bahasa Leppo' Ké.

MATERIAL CULTURE

- Bernard Sellato - Cultural community-development projects in Kayan-Mentarang.

FILM AND VIDEO:

- *Dayak and Biodiversity*, a 15-min film on KMCA and C&C shot by the Sejati Foundation, was edited in Jakarta, and its English-language version mixed and released as a video cassette in October 1994. An Indonesian-language version is expected soon.
- *The Last Potter of Kalimantan*, a video movie on traditional pottery in KMCA shot by P.-Y. Manguin and B. Sellato, was edited in France as a co-production of WWF/IP and the Institut de Recherche sur le Sud-Est Asiatique (IRSEA-CNRS). It will be released in two versions (English and French) around mid-1995. An Indonesian-language version for use in KMCA would be most welcome if additional funds were available.

ANNEX 2

C&C Papers at International Conferences

Culture & Conservation endeavored to enable as many of its researchers as was possible to attend the Borneo Research Council conferences within Borneo. Most of these researchers gave papers.

- Second Biennial International Conference of the Borneo Research Council, Kota Kinabalu, Sabah, Malaysia, July 1992. Four papers were delivered by C&C participants, all focused on Long Pujungan District: **Dolvina Damus** (rice varieties among the Kenyah Leppo' Ké and Leppo' Ma'ut), **Martua Sirait**

(rattan and its uses in Long Uli), Albert Rufinus (Kenyah Bakung sound system), and Fredrik Ngindra (rituals of Bungan religion among the Bakung). In addition, three papers were delivered by C&C officers Stephanie Morgan (two papers on oral literature) and B. Sellato (the Ngorek archaeological finds in the upper Bahau).

Another paper was presented by KMCP directors Herwasono Soedjito and T.C. Jessup (the proposed Kayan Mentarang biosphere reserve), and three more by LIPI researchers associated with the KMCP, Awit Suwito (parasites of mammals), Haryono (fish and fishing), and Siti Susiarti (medicinal and poison plants). Finally, one paper was delivered by a foreign student doing research in Kayan Mentarang, Rajindra Puri (Punan hunting practices).

- Third Biennial International Conference of the Borneo Research Council, Pontianak, West Kalimantan, Indonesia, July 1994. C&C participants alone presented ten papers on their research: Angguk Lamis (Kenyah Leppo' Ma'ut traditional land rights), Daniel Lawing (Leppo' Ma'ut songs and music), Indah Setyawati (knowledge and use of rice varieties in Apau Ping), Karina Arifin (using ethnography in the archaeological study of megalithic funeral monuments), Liman Lawai (Kenyah Leppo' Tau social stratification and leadership in Apau Kayan), Ruli Rachmajanti (Kenyah Leppo' Ké language), B. Sellato (social organization and ethnolinguistic boundaries), A. Soriente (dialectological study of the Kenyah isolects of Long Pujungan District), Sri Munawarah (personal and possessive pronouns in Kenyah Bakung), and Syahirsyah (folk knowledge about coppicing and afforestation in Apau Ping).

In addition, KMCP officers and staff members gave five papers: Herwasono Soedjito (swiddening cycle in Apau Ping), Frank Momberg et al. (participatory zoning of conservation areas), Nazir Foead (role of exploration in conservation management in the KMCA), Samuel Padan (role of participatory mapping in conservation and resource management), Purwaningsih, Monica Kusneti & Herwasono Soedjito (regeneration of flora in forest succession); two researchers associated with the KMCP also gave papers: Francisca Murti Setyowati (Kenyah food plants) and Rajindra Puri (hunting knowledge of the Penan Benalui)

Two of the C&C researchers above were given the additional opportunity to deliver papers on their research at major international conferences in specific fields of study: Karina Arifin, at the Indo-Pacific Prehistoric Association (IPPA) Conference in Chiangmai, Thailand, in January 1994; and Antonia Soriente, at the International Conference on Austronesian Linguistics (ICAL) in Leiden, The Netherlands, in August 1994.

ANNEX 3

Preparation of a C&C Volume for Publication

This book will contain 400 to 500 pages and will be published as two separate, English and Indonesian, editions. Provisional title: Culture and Conservation in East Kalimantan, Indonesian Borneo, Bernard Sellato (ed.). The provisional table of contents is given in English below.

0. INTRODUCTION, by B. Sellato

- The C&C Program: history; purposes of the research program; summary of activities; list of output (reports and other); outline of future research
- KMCA Background: general administrative, geographic, historical, social, economic, ethnic, and linguistic background information on KMCA

1. SOCIAL ORGANIZATION AND LEGAL SYSTEMS

- Introduction: Kenyah social organization, by B. Sellato
- Social change and its impact on agricultural organization in Long Pujungan District, by Christianita Day
- Single women as family heads in the village of Long Pujungan, by Katja Meyer
- Introduction: legal systems, by Jacobus Frans
- Patterns of traditional land rights among three Kenyah groups (Leppo' Ma'ut, Leppo' Ké, and Bakung), by Angguk Lamis, Concordius Kanyan, and Paulus Bunde

2. LAND AND RESOURCE USE AND TRADITIONAL KNOWLEDGE

- Introduction: agriculture, resource use for subsistence, and commercial forest products, by T.C. Jessup and Herwasono Soedjito
- Land preparation and tenure in swidden agriculture among the Kenyah Leppo' Ké, by H. Bahari Sindju
- Traditional knowledge, its preservation, and its transmission in the Apau Ping area, with special consideration of rice varieties, by Indah Setyawati
- Traditional knowledge of forest composition and levels after use for swidden agriculture in the Apau Ping area, by Syahirsyah
- The material provisioning for subsistence among the Kenyah Bakung, by Fredrik Ngindra
- Hunting practices of the Penan Benalui, by Rajindra Puri
- Rattan varieties and their uses, and the processing of natural resources in Long Uli, by Martua Sirait

- Incense-wood and the trade networks for forest products in the Bahau river drainage, by Blajan Konradus

3. RECOVERING THE PAST IN NON-LITERATE SOCIETIES

- Introduction: Kenyah history, pre-Kenyah history, and regional linguistics, by B. Sellato
- A brief history of the Kenyah Leppo' Ké and Nyibun (Long Pujungan District), and of the Kenyah Leppo' Tau (Kayan Hulu District), by Njau Anau and Liman Lawai
- History and patterns of migration among the Kenyah and Kayan of the Apau Kayan region, by Cristina Eghenter
- Megalithic sites and lithic industry in Long Pujungan District: a summary, by Karina Arifin, Dody Johanjaya, Yoga Prima Subandono, Anggara Yonathan, Aryandini Novita, and Krisprihartini S.
- Ethnoarchaeological study of secondary funeral practices and monuments in Kayan Mentarang, by Karina Arifin
- The linguistic situation of Long Pujungan District: a dialectological study, with some inferences for cultural history, by Antonia Soriente

4. SPIRITUAL, ARTISTIC, AND MATERIAL EXPRESSIONS

- The rituals of the Bungan religion among the Kenyah Bakung, by Fredrik Ngindra
- Dayak Kenyah oral literature in Long Pujungan District: a summary of types and themes, by Stephanie Morgan
- Folk songs of the Kenyah Leppo' Ma'ut: a study of text and music, by Daniel Lawing
- Rattan handicrafts, their techniques, motifs, and symbolism among the Kenyah Leppo' Ma'ut, by Martin Lenjau
- The last traditional pottery of Long Pujungan: a brief technological description, by B. Sellato.

ANNEX 4

C&C's Interdisciplinary Regional Research Program (IRRP)

The C&C research program has been called "an interesting and rare research in Indonesia" and "a model for multidisciplinary research" (see Dove & Tri Nugróho 1994). It is proposed to carry on this program in the form of an interdisciplinary regional research program (IRRP), with a focus on the diachronic

study of the relationship between society and the environment. It will concern itself primarily with the KMCA and surrounding regions considered to be an appropriate and high-potential setting (Dove & Tri 1994), but may be extended to other regions of East Kalimantan, other Kalimantan provinces, and East Malaysia.

The IRRP will explore the regional history of people and their natural environment, that is, in a diachronical perspective, the modes of interaction between people and the rainforest. Its premises were first laid down in B. Sellato's paper delivered at the Borneo Research Council's conference in Kota Kinabalu in 1992 (Sellato 1992b). It proposes to combine investigations in the following fields of study: ethnography, comparative linguistics, land and forest tenure, legal systems, archaeology, ethnoarchaeology, agronomy and agricultural systems, ethnohistory, social organization, human ecology, historical ecology, and ethnobiology.

The IRRP will serve several purposes: 1) contribute in the long run to an ongoing effort to reconstruct the natural and cultural history of Borneo (see below); 2) provide new insights on the modalities and impacts of human manipulation of the environment, particularly in the use and management of natural resources and the process of afforestation; 3) document the history of institutions, particularly in relation to the use and management of land and natural resources, and provide a firm basis for the maintenance of traditional rights on land and resources; 4) contribute reliable background scientific data on social-economic situations to other KMCA activities, especially community-based resource management and other projects focused on social and economic development; 5) contribute to the training of junior Indonesian (primarily Kalimantanese) scholars in the different disciplines concerned. The following lines focus mainly on point 1.

Such a program aims at providing new insights into several major issues in the natural and cultural history of Southeast Asia. In more than one respect, the IRRP will be a groundbreaking endeavor, providing "an opportunity to make a unique contribution to the study of the cultural history of Southeast Asia" (Dove & Tri 1994). The following points should be stressed: * no scientific archaeological research has ever been carried out in Indonesian Borneo, and the Ngorek lithic industry and megalithic monuments definitely constitute a rare set of finds, showing possibly the highest known density of archaeological remains of this type in Borneo; * the local ethnic groups' history, cultures, and languages have never been studied in a systematic and comparative way, and historical, cultural, and linguistic relationships between these groups are as yet but very poorly understood; because of the region's remoteness, local cultures have maintained their traditional ways (particularly, subsistence economy), allowing for in-depth

ethnographic studies; the same applies to languages, not much influenced by regional coastal vernaculars and national languages; * as the period investigated spans over only a few centuries, much information relative to known archaeological remains accessible through local oral historical traditions; * and the region's natural environment is certainly one of the best preserved in Southeast Asia (WWF/IP 1993).

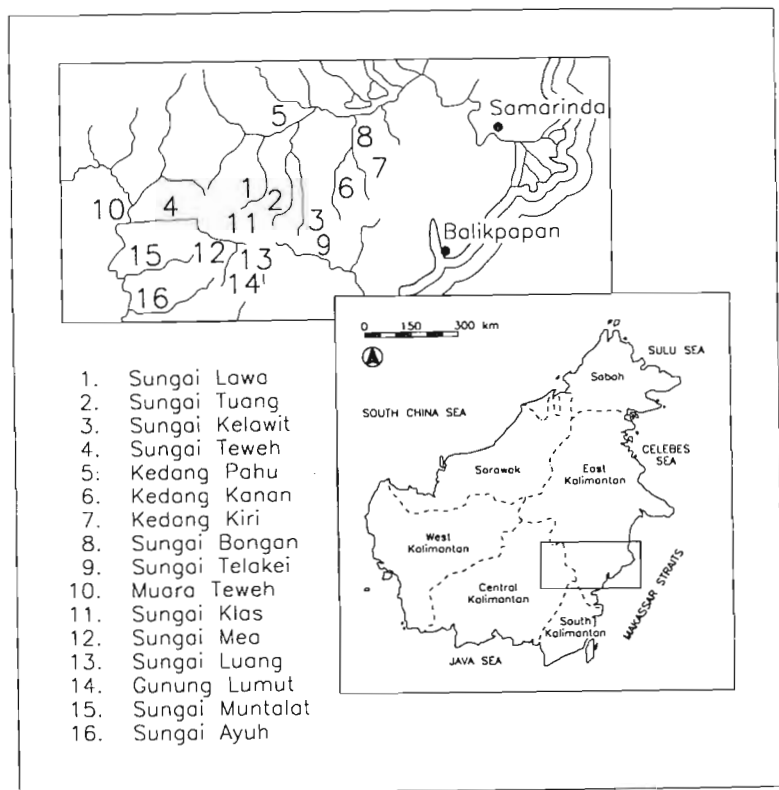
Because of its location -- the KMCA -- and primary focus -- the former "Ngorek" groups (see Sellato 1992a) -- the IRRP has a unique position in time and space, providing an opportunity, rare in Western Indonesia, to tackle such issues as the early horticultural economic systems and the advent of rice agriculture (see Sellato 1995a); the transition from stone-tool technologies to metals (see Dove 1989); the processes of cultural diffusion of new elements, like rice, iron, and social stratification, from coastal contact regions to the remote hinterland (Sellato 1995a); the social and religious background to widespread megalithic activity (Karina 1994, Sellato 1992a); and the history of the forest and of its manipulation by man (see Herwasono & Kuswata 1994). Moreover, this position offers seldom met conditions for diachronical studies in the fields of social anthropology and historical linguistics, centering respectively on ethnocultural identity and its transformations; and on the processes of language change along a known time scale (see Soriente 1994). In time, the IRRP should lead to an interdisciplinary global reconstruction of regional history, and is likely to bring about significant revisions of our current knowledge and understanding of Southeast Asia's cultural history.

LOCAL IDENTITY AND REGIONAL VARIATION:
NOTES ON THE LACK OF SIGNIFICANCE OF ETHNICITY
AMONG THE LUANGAN AND THE BENTIAN

KENNETH SILLANDER

As readers of Borneo Research Bulletin know, Kalimantan Dayaks have received little anthropological attention, not only in a general perspective, but also as compared to Sarawak Dayaks. The Luangan (Lawangan) are no exception in this respect. Very little has recently been published on this Central and East Kalimantan group, despite the fact that they are, not only one of the principal Dayak groups of southern Borneo, but one of the most numerous and widely distributed Dayak groups on the whole island.¹

The purpose of this article is to contribute to the ethnographic knowledge of this large but little known Dayak group through an analysis of collective identification and regional variation. In other words, I intend to look at who the Luangan consider themselves to be, and how they are internally differentiated. I will begin the analysis by discussing the Luangan in general, and then proceed with some more specific data on the Bentian and their neighbours, the Luangan subgroups among whom I have done most of my field work.² Speaking theoretically, my purpose is to respond to a number of important writings on Bornean ethnicity which have successfully challenged an ethnocentric understanding of the phenomena (e.g. Babcock 1974; King 1979, 1982; Nicolaisen 1977-78; Rousseau 1975, 1990). By analysing identity and differentiation among the Luangan, I want to call attention to the incongruity between indigenous and western notions of ethnicity.



LUANGAN IN THE CONTEXT OF SOUTHERN BORNEO

If someone were asked to mention one or a few Dayak groups, Luangan would unlikely be among those that first came to mind. On the contrary, few have ever heard about them even in Kalimantan. Still, the Luangan are distributed over a vast territory, located between two of the major rivers of Borneo — east of the middle reaches of the Barito, and south of the middle Mahakam — and their population is among the largest in Borneo — it exceeds 50,000 even by a very conservative count, and it approximates 100,000, if all potential candidates for subgroups are included.³

The Luangan are one of the four major Dayak groups of southern Borneo. Together these groups form the Barito linguistic family of Hudson (1967a). Roughly speaking the Luangan correspond to the northeastern division of the Barito family, whereas the Maanyan, Ot Danum and Ngaju, respectively, make up the southeastern, northwestern and southwestern division.

In addition to language, the Dayak groups of the Barito family also have many cultural elements in common. The most important of these are religious beliefs; adherence to the officially recognized Hindu-Kaharingan religion (and a high percentage of members who have not converted to Christianity)⁴ sets these groups apart from other Dayaks. Elaborate secondary mortuary ceremonies (*kwangkei*, *gombok*, *ijambé*, *tiwah*) are characteristic of these peoples, and frequent curing rituals (*belian*, *balian*, *wadian*) play an important part in their everyday life. Regarding other commonalities social organization is more fluid than among many other Dayaks, especially among the Luangan. Longhouses are and were uncommon or small in comparison to central and northern Borneo.⁵ Headhunting was also less important, and among some groups it may not have been practised at all.⁶ Some form of stratification seems to have existed among all Barito Dayaks, but rank probably had only minor significance as a socially organizing principle.

LUANGAN TRIBAL GROUP CONSCIOUSNESS

A central argument in this article is that a description of the specific characteristics of the Luangan necessarily would be somewhat arbitrary. Diacritic criteria are hard to find because of similarities between Luangan and other Barito family Dayaks, on the one hand, and because Luangan form a very heterogenous group, on the other. Most characteristics more specific than the general Barito family characteristics given above, do not apply to the whole Luangan. Like most other large Dayak groups, Luangan are actually not a group in the strict sense of

the term, but a broad general category, consisting of several loosely connected localized groupings. Following a now outmoded terminology we could perhaps say that they are a tribal group. In comparison with most other tribal groups in Borneo, the Luangan are, however, divided into more distinct subgroups, with a less developed common identity. The level of their tribal group integration is particularly low, and most times they refer to themselves, and others refer to them, by their subgroup names.

Now I don't intend to say that the Luangan are unique in this regard; the difference to other large Dayak groups is one of degree only. As we know, many Bornean ethnonyms familiar to us today are relatively recent constructs. To take some of the best known examples, none of the terms Iban, Land Dayak, or Ngaju, was formerly used by these groups, at least not in the sense which they are used now.⁷ Identification was instead regional or local, usually with a particular river or river basin. These names, like many others, became established largely as a result of usage by Europeans and other outsiders. In precolonial Borneo it was the rule, rather than the exception, that local groups had little or no sense of a more general identity. The ethnic division of Borneo today, at least the one reported in the literature, is to a considerable extent the product of colonial and postcolonial administrators and ethnographers, fond of establishing exclusive and ordered categories, and classifying smaller entities within larger totalities.

What I intend to say is that, although there are many exonymically assigned general Dayak group names which have been adopted by Dayaks (the word Dayak itself is an excellent example), tribal group consciousness is nevertheless very low among many Dayaks, and particularly among the Luangan. For the latter, at least, the most important level of identification is usually either lower (with the subgroup, or with still smaller units within the subgroup) or higher (with Dayaks in general, as opposed to Malays and other peoples).

CLASSIFICATIONS OF LUANGAN SUBGROUPS

The Luangan category is a very diffuse one, both with regard to its external boundaries and its internal divisions. If someone is a Luangan or not and to which subgroup he or she belongs is not always easy to tell. The boundaries between Luangan and non-Luangan, as well as those between different Luangan subgroups, are far from clear-cut. This means that also a listing of the Luangan subgroups involves some degree of arbitrariness, as can be seen in the existing attempts at comprehensive classification that we find in the literature. Jacob Mallinckrodt's (1927: 579-85, 1928: 28-30), Tjilik Riwut's (1958: 220-221) and Joseph

Weinstock's (1983a: 198-226) classifications are all different from each other. They list different numbers of subgroups and different names for subgroups.

As some of these differences are due to incorrect spelling or mistakes in the two former cases, we need not go into the details of these two classifications here. It suffices to say that Mallinckrodt probably was, as Weinstock (1983a:78-79) has pointed out, the first to define Luangan as a tribal entity, and that he listed 21 subgroups in what he called the Stammengroep der Lawangan. But although Weinstock only reported 14 subgroups, Mallinckrodt's Stammengroep der Lawangan do, as a totality, correspond fairly well to the Luangan of Weinstock's classification. The main difference regards the so called Dusun subgroups, which constitute a different stammengroep of eight stammen in Mallinckrodt's classification (1927: 585-86, 1928: 30-31), but which were included in Luangan as the Malang, Bayan, Dusun Tengah, Dusun Hilir, and Dusun Dayeh by Weinstock. The other Luangan subgroups of Weinstock — Tunjung, Pahu, Benuaq, Bentian, Purei, Taboyan, Bawo, Paku-Kerau, and Pasir — make up a rather similar totality to that formed by the much more numerous Lawangan stammen of Mallinckrodt.⁸

The difference between Mallinckrodt's Lawangan and Weinstock's Luangan, then, is clearly less substantial than terminological. It is nevertheless not insignificant, and a closer look at the etymologies of the respective term can serve to illuminate a considerable heterogeneity of the people so designated, and a real variation in their usage of these terms.

LUANGAN AND LAWANGAN

Making a break with the earlier literature Weinstock (1983a) replaced the term Lawangan with Luangan. His basis for this was his finding that the people in question themselves use this term, and that they do so because they originate from the river Luang, a tributary of the upper Teweh in Central Kalimantan (ibid. viii, 72-77). The term Lawangan Weinstock regarded as an orthographic error by Mallinckrodt, which, nevertheless, had gained some usage (ibid. viii, 79).

Weinstock found evidence for his hypothesis on the common origin of the Luangan subgroups, not only in that they look to the upper Teweh area as their ancestral homeland, but also in that they believe that one of the two souls of the deceased (*liau*) upon death goes to live on Gunung Lumut, a mountain in the vicinity of sungai Luang. During *gombok* and *kwangkei* mortuary rituals, *liau* is symbolically guided to Gunung Lumut by death shamans (*wara*) along routes in the real world. According to Weinstock, these routes are reverse versions of those

along which the different Luangan subgroups once migrated from their original homeland to where they live now. (ibid. 73)

The word Lawangan has probably never been used autonymically to refer to the tribal group as a whole. On this ground, Weinstock's rejection of it is fully justified. It is doubtful, however, to what extent Lawangan is an exonymic misinterpretation. Before Mallinckrodt, many others, including Schwaner (1854), and Grabowsky (1888), had recorded it as a designation for a Dayak group who inhabited the Ayuh and Karau tributaries of the middle Barito. It seems to have been in use among the Dutch at least from the mid-nineteenth century onwards. Today the same group still live in the same area, and still use the same name (or Lowangan), as was also noted by Weinstock (1983a: 214, 216), who included it among the Luangan subgroups, but called it Paku-Kerau, in order to avoid confusion. Other groups in the middle Barito region (i.e. the Dusun and Maanyan) also identify this group as Lawangan, and they use the term only for this subgroup, not for the whole Luangan. What is more, Luangan and non-Luangan alike in this region do commonly not know the word Luangan, and neither do they know the concept of Luangan in Weinstock's sense. The word Luangan is at best part of the esoteric knowledge of *baliangs* and *kepala adats*, and an eventual common Luangan origin is of little practical interest, although the upper Teweh and mythological localities in its vicinity (Muara Lomu, Tanjung Ruang and Neten Pali⁹) are referred to as habitations of early ancestors, and bahasa Taboyan is used as a ritual language (Taboyan are the people who inhabit the upper Teweh).

Luangan tribal group consciousness is particularly low among the Dusun groups, who, as we already know, were treated as a separate tribal group by Mallinckrodt. These groups, who all live by the Barito, and occupy a linguistically intermediate position between the Maanyan and (other) Luangan, rather clearly distinguish themselves from their more inland dwelling Luangan neighbours (the Lawangan, Bawo and Taboyan), as do these neighbours in their turn distinguish themselves from the Dusun. In terms of identification then, the Dusun are different from the Luangan, although they — especially the upper Dusun groups — are very similar culturally.

REGIONAL DIFFERENCES IN LUANGAN IDENTITY

With respect to the geographical distribution of Luangan subgroups, and the degree to which they recognize a Luangan identity, the Barito region can be conceived of as peripheral to the upper Teweh area. The strength of Luangan identity, and the usage of the term Luangan vary considerably in different parts

of the Luangan territory. More precisely, Luangan identity is strongest in what could be called the center, the area presumed to be their original homeland, whereas it is weaker in the "peripheries", in the Barito and Mahakam regions. In the center of the Luangan territory, among the upper Teweh Taboyan and the Bentian, the term Luangan is more readily recognized than in the Mahakam and the Barito regions. In this area the word Luangan is part of the everyday vocabulary, and here we find people who occasionally use it as a primary autonymic referent.¹⁰ The autonymic version of the concept is, however, different from the tribal group designations of Weinstock and Mallinckrodt. In local usage the term Luangan signifies "people who eat pork". According to some informants, "Luangan" is actually nothing but a *bahasa daerah* version of the concept Dayak of bahasa Indonesia. In other words, all non-Muslim peoples of Borneo are Luangan. Luangan identity is not restricted to the tribal group entity described in the literature; on the contrary, Dayaks like Kenyah or Ngaju who might be unfamiliar with the term, are also referred to as Luangan.

In the Barito region, as we have seen, the word Luangan is little known. Among the Benuaq and the Tunjung, the Luangan subgroups of the middle Mahakam, more people seems to know it, and those who do usually consider themselves Luangan (here, as elsewhere outside the Barito region, the word Lawangan is not used). Not all Benuaq and Tunjung, however, recognize it, and no one would normally give Luangan as an autonym if their identification was asked for. In most circumstances, they use the name of the respective subgroup. When the word Luangan is used, it is usually with reference to ancient origins or religious tradition.

The inclusive meaning ascribed to the term Luangan in the "center" of the Luangan area, is also associated with it in the middle Mahakam region. Here, however, as in the Barito region, a vague conception of the tribal group Luangan also has some currency. As a consequence, the meaning of the term Luangan — to the extent that it is known — varies considerably. Among the Benuaq, for instance, there are people who use the it to signify a common identity which they share with the Dayaks of Central Kalimantan, whereas others reserve it exclusively to certain Luangan subgroups in that province, and some, finally, include all non-Muslims in this category. To some degree, at least, this variation in the usage of the concept Luangan is certainly due to it being less known, and subgroup identity being more pronounced in the Mahakam and the Barito areas as compared to the upper Teweh region. It is important to note, however, that the most well articulated notions of an exclusive tribal group entity that I have come across were provided by Luangan in downriver areas, or by individuals who have some acquaintance with ethnographic literature.

THE RELIGIOUS CHARACTER OF THE LUANGAN CONCEPT

In defining who the Luangan are, Weinstock emphasized the importance of the Luangan form of Kaharingan, the practice of which he did not see as necessary for Luangan identity (there are also Christian Luangan), but as sufficient (1983a: 81-82). He illustrated his case with the Tunjung, who are different from the rest of the Luangan subgroups in terms of language¹¹ and origin, but who nevertheless consider themselves Luangan, because they have adopted Kaharingan practices and beliefs (ibid. 82, 85-87, 198). In contrast to the neighbouring Benuaq, the Tunjung do not recognize an origin in Central Kalimantan, but they do practice Kaharingan curing and death rituals, and they believe in Gunung Lumut as the final destination of *liau*, and have done so for at least one and a half centuries (see Weddik 1849: 156).

The central parts of the Luangan territory are looked to as the area from where the Luangan form of Kaharingan originates. The upper Teweh region is a center of religious tradition, the importance of which reaches beyond the Luangan tribal group. The ritual language of the Luangan, which closely resembles the language spoken in the upper Teweh area, is not only used by the Luangan, but also by the Maanyan and, at least occasionally, by the Siang, an Ot Danum subgroup. In addition, the Maanyan also share Luangan mythology, the events of which are located in the upper Teweh region, although they claim a different origin from the Luangan in the Hulu sungai area of South Kalimantan (Hudson 1967b: 15). Parts of this mythology was of central importance for the millenarian *nyuli* movement, which placed the Maanyan and Luangan in the center of much Dutch attention during the second and third decades of this century.¹²

In line with Weinstock, I would argue that the Luangan form of Kaharingan is essential to Luangan identity. I would, however, like to carry his argument further. As I see it, Luangan is above all a concept signifying identity with a religious tradition, not primarily an ethnonym, in the strict sense of the term. In any case the Luangan are certainly not an ethnic group, and it is doubtful even whether they qualify as an ethnic category. Sociologically speaking, Luangan represent an aggregate of a large number of widely dispersed local groups, which are not integrated within an over-reaching system of tribal group organization. While it may be possible that most of these groups originate from sungai Luang, it is normally not this aspect of commonality which is invoked when the term is used.¹³ Instead it is various attributes of religious identity such as eating pork, performing *belian* curing rituals or carrying out Luangan eschatological practices.

Originally, perhaps, the term Luangan signified a group who lived in a particular locality, but as it is used now — and, as I believe it has been used for

a long time — it does not serve to distinguish between the descendants of that group and other Dayak peoples, except in the minds of some individuals influenced by western views on ethnicity. In so far as the term Luangan marks boundaries towards non-Luangan at all, it usually serves to distinguish Luangan from Malays and other Muslims. To the extent that we can talk about an ethnic aspect of Luangan identity this aspect is largely concomitant to religious identity. Significantly, the *nyuli* movement, which mobilized quite large numbers of Luangan in different areas, was essentially a religious movement, although discontent with increased Dutch political control provided it with an important underlying motive (Mallinckrodt 1925: 37-38).

Among the scattered groups who in some sense affirm Luangan identity there exist no social entities above the community level which are corporate in the sense that they come together as totalities or recognize some form of institutional representation. In socio-political terms the Luangan subgroups are as weakly integrated as the tribal group. Even the Luangan communities are very loosely organized. Although most Luangan families nowadays own houses in nucleated villages many live more or less permanently in separate farmhouses on their swiddens, especially in remoter parts of the Luangan area. To the degree that Luangan society is organized at all it is mainly by kinship and religion on the village level or on a slightly higher level. Otherwise dispersed Luangan communities gather occasionally during Kaharingan rituals, Christian meetings and certain co-operative agricultural work tasks (*gotong royong*).

THE BENTIAN AND THEIR NEIGHBOURS

I shall now change the focus of the analysis from the quasi-ethnic Luangan category to some particular Luangan subgroups, the Bentian and their neighbours, the Benuaq, Taboyan and Purei. Of these groups Bentian will be the primary object of examination. The others are discussed mainly for purposes of contrast, and when they provide some particularly interesting data on identity and differentiation. As we shall see, ethno-cultural integration and boundary maintenance are processes of limited significance also on the subgroup level. Local group identity and relations nevertheless reflect certain political considerations. Regional and national concerns influence local affairs and are likely to do so even more in the future.

Bentian, with a population of some 3.500 people, is one of the smallest Luangan subgroups. They live in the center of the Luangan territory, in a politically peripheral inland area near the provincial border between Central and East Kalimantan. They inhabit twelve villages,¹⁴ all but one of which are located in East Kalimantan, mainly along the upper Lawa river, but also by the

headwaters of the Tuang and Kelawit — all three tributaries of sungai Pahu, a branch of the Mahakam. The inhabitants of Tambaba, the only Bentian village situated in Central Kalimantan, also used to live in East Kalimantan before they moved to the area of their present location by the Kias, an affluent of the Teweh.

The Bentian villages of East Kalimantan are all part of *kecamatan* Bentian Besar, a district which initially covered only the upper half of the Lawa river but which was expanded in 1993 to comprise the uppermost stretches of the Tuang and Kelawit. As its name suggests, the inhabitants of Bentian Besar are mainly Bentian, but downstream from the Bentian villages on all three of the above-mentioned rivers there are a few Benuaq villages which also belong to this district.

On the other side of the provincial border, Tambaba is part of *kecamatan* Gunung Purei, within which also the upper Teweh, Gunung Lumut and sungai Luang are located. In this district most villages are Taboyan, but it does also include two long established Bekumpai Malay villages, and Baok, a village next to Tambaba on the Kias river, whose inhabitants are the only members of the Luangan subgroup of Purei.

As is probably the case in most other parts of Borneo, the Bentian and their neighbours do not live separated from each other, but frequently interact and intermarry. There are unmarried Benuaq and Taboyan individuals in every Bentian village and most Bentian villages also accommodate a few Malay traders. Nowadays a significant number of Javanese and other government officials also stay in or near Bentian territory, mainly in Dilang Puti and Lampeong, the district capitals of Bentian Besar and Gunung Purei. Within both districts there are presently several logging camps, the largest of which has been developed into a huge transmigration site, programmed to receive several hundred Javanese families.

Like some other small Luangan subgroups such as the Bawo and the Pasir, Bentian can be seen as a mountain or upland people. Their territory is hilly and characterized by a lack of trafficable rivers (the lower half of the Lawa river forms an important exception). Travel between different Bentian villages is mainly by foot (distances between adjacent villages vary from about three to thirty kilometers). The Bentian area used to be quite inaccessible, but this has somewhat changed since it is now traversed by an interprovincial road, aimed at connecting Samarinda by the east coast and Muara Teweh by the Barito.

Although remote and formerly difficult to reach, the Bentian area has not, however, been isolated. Bentian and some of their Luangan neighbours are

renowned for their high-quality rattan, and they have been cultivating rattan and trading rattan products for at least one, and one and a half century, respectively (Knappert 1905: 618, 620, 626-27; Schwaner 1853: 118, 120; Weinstock 1983b: 60, 63). The Bentian have conducted small-scale trade with Bekumpai Malays settled on the upper Teweh for close to two centuries (Schwaner 1853: 120), and, for a probably much longer time, different people have been passing through their territory along a couple of important trade routes linking the Mahakam, Barito and Pasir regions (ibid. 116, 120-121; Müller 1857: 228). During the early and middle nineteenth century these routes were also used by the infamous Pari Dayaks,¹⁵ who carried out extensive raids along the Teweh river and in Pasir (Müller 1857: 223, 226, 228; Schwaner 1853: 118-119;).

Bentian's language is very similar to that spoken by neighbouring Luangan subgroups, although referred to as bahasa Bentian and often pointed to as one of the few things that distinguish Bentian from their neighbours. In addition to closely related Luangan isolects some Bentian also know other Dayak languages such as Tunjung and "Kapuas" (Ngaju), and a few individuals speak some Bekumpai and Kutai Malay. Today, almost all Bentian have some proficiency in Indonesian.

In most ways Bentian differ little from their Luangan neighbours. Culture and social organization are basically the same. There is nevertheless considerable local variation, and although ethnicity on the whole is of little concern, certain differences play a central role in local identity formation and intergroup relations. It is to this variation and these differences that I will turn below.

BENTIAN ETHNO-IDENTITY

The topographic character of Bentian's territory is an important element in Bentian conceptions of self-identity. Bentian identify as an upriver or inland people, and they do so not only in a wider geographical context, in distinction to coastal peoples or peoples from the Barito and Mahakam regions, but also in a more restricted local setting, in order to distinguish themselves from their closest neighbours. They may point out, for instance, that they, the Bentian, are *orang darat* (land people), whereas the Taboyan of the Teweh river or the Benuaq of the lower and middle Lawa are *orang pantai* (riverbank people). They are the Bentian, they say, because they live in the Bentian area, an area of shallow rivers and mountains, the in- and upland character of which they sometimes metaphorically allude to by describing this area as an island.

Following this line of reasoning, the ethnonym Bentian, like the great majority of Dayak group names, is a local identity label. Although closely connected with locality, it is not, however, derived from a toponym; there is no river or other landscape feature in Bentian's territory which carries the name Bentian. Before *kecamatan* Bentian Besar was established the ethnonym Bentian was probably only loosely associated with a loosely demarcated inland area. The presence of certain mountains containing caves in and near this area is, however, a matter of some significance in Bentian notions of how identity and locality are connected. Except being used as an ethnonym, the name Bentian is also ascribed to a small and colourful bird (*Erythura Prasina*, the Longtailed Munia), which presumably lives in these caves. Normally not seen, this enigmatic bird invades Bentian's rice fields in great numbers every year at harvest time. It is also reported as one of the most dreaded pests of rice in other upland areas of Borneo (see Smythies, 1960: 51, 492-93, for the Kinabalu and Kelabit regions, and Tsing, 1984: 183, 188-89, for the Meratus mountains), but it appears to have a rather localized distribution and Bentian treat it as emblematic of their own area. They deny, however, a suggestion that the ethnonym is taken from the name of the bird, claiming instead that bird and people share the same name because both live in the same mountainous area. Their relation to the bird is nevertheless important and it is elaborated in the special way they plant rice by moving in wide circles, mimetically representing the flight of the Bentian birds in order to please them, a custom signified by the verb *mementian*.

Rice cultivation is also a central aspect of Bentian's identity and they say that they have had *ladangs* for as long as any one can remember. Rattan cultivation is equally important, and sometimes pointed to as what distinguishes them from other Dayaks. Whether it is true that Luangan originally lived in family bands of hunters and gatherers (Weinstock 1983a: 74, 142), and that rice cultivation was brought to the upper Teweh area by the Bekumpai only a couple of centuries ago (*ibid.* 142, 144-45), is difficult to confirm; in recent times there seems to have been no hunters and gatherers in or near the Bentian area, and any memory of a nomadic ancestry is emphatically denied. Formerly, and to a considerable extent still today, the settlement pattern of Bentian and neighbouring Luangan was very dispersed. In upriver areas there were often no proper villages at all; only small and solitary "longhouses" (*low solai*), the internally related component families of which usually lived in separate houses on their swiddens. On the middle Lawa and the middle Teweh, villages have, however, been in existence for more than 150 years (see Bock 1988 [1881]: 141, 160-61; Müller 1857: 222-29; Schwaner 1853: 116-119). In the early and middle nineteenth century, people on the middle and lower Teweh and on the upper Barito built clusters of heavily fortified houses surrounded by ironwood palisades (*bénting*) for protection against the Pari (e.g. Müller 1857: 226, Schwaner in Roth 1968 [1896]: cxc-cxci, Weddik 1851: 22).

REGIONAL POLITICS AND LOCAL RELATIONS

If asked in what ways they differ from their Luangan neighbours, most Bentian are likely to point out that there is really nothing which is different, except, perhaps, aspects of language or minute details of *adat*. Among both Bentian and their neighbours ethnicity is seldom thematized and there is a strong unwillingness to mention or admit any differences. Generally, group identity seems to be invested with no strong sentiments and with very little interest. At the same time, however, ethnicity is clearly a very sensitive matter. In different ways, ethnicity is simultaneously unimportant and important.

What appears to be a lack of significance of ethnicity among Bentian and their neighbours reflects different things. To some extent, the absence of interest in ethnicity is just that, a non-ethnic apprehension of social life. Ethnicity simply isn't so important, and why should it be? In everyday affairs ethnicity is only rarely an issue; neighbours mix and are both culturally and structurally similar, and no benefits or interests are distributed along ethnic lines. There is no cultural model according to which common origin should be given central importance and ethnic or tribal identity be reified. Consequently, identities are fluid and flexible, often multiple, and only contextually relevant. Ethnic categories are not organized in coherent taxonomies, and if asked for out of context their meanings and applications are sometimes poorly understood. The observation of Witkamp (1928: 422), who visited the Bentian area in 1922, that the Dayaks he encountered didn't seem to know whether they were Bentian or Benuaq, could equally well have been made today. Many individuals, especially in villages bordering to other groups, have very vague ideas of their collective identity.

Lack of ethnic orientation, however, only partly explains the absence of ethnicity in our study area. There is also another, entirely different side to it. To a certain degree, the absence of ethnicity is actually a presence — of national identity politics. Local interpretations of identity and difference are informed by national models. Expressing distinctiveness in terms of minor variation in language and *adat* echoes *Pancasila* ideology in accordance with which diversity should be diluted and expressed through non-political channels. Persistent denial of difference reflects not only similarities, but, more importantly, compliance with government authority. As Bentian see it, ethnicity in Indonesia is undesirable, and therefore not talked about, at least not openly. In addition, development oriented national and regional discourse on ethnicity portray Dayaks, and peripheral Dayaks in particular, as primitive.

The situation of Bentian is very similar to that of Meratus in South Kalimantan, who "...often deny that they belong to a definable ethnic category at all"

(Tsing 1984: 32). For both the Bentian and the Meratus, addressing differences means addressing their vulnerability. Talk about ethnicity invokes their primitiveness. "Since in their experience, ethnicity has defined their inferiority, it makes sense to deny distinctiveness", comments Tsing (*ibid.*) on the Meratus situation. Relative remoteness and relative freedom of administrative control entail the risk of being labelled *suku terasing* and subjected to government intervention; given the order of things, asserting identity is dangerous and futile for small Dayak groups such as the Bentian. The best strategy to defend identity and autonomy is often to avoid attention.

Sometimes, however, it can also be advantageous to stress difference. Tsing points out that "foothill and east side Meratus made fun of the 'backwardness' of mountain [Meratus]" (*ibid.* 38), and that it was the latter who most often refused to define themselves as a distinctive group (*ibid.* 33). During my fieldwork I noted a considerable asymmetry between the Bentian and their neighbours regarding the degree to which they deny group differences. Bentian's neighbours were less reluctant to provide differentiating characteristics for the Bentian than vice versa. Bentian (and the Purei) were most persistent in pointing out that they really are like everybody else, and most unwilling to explain in which ways their neighbours are different. Benuaq and Taboyan, on the other hand, not infrequently conveyed the view that Bentian are a somewhat strange and backward inland people, characterized by, among other things, strong adherence to traditional *adat*, great traditional wealth in water buffaloes and Chinese jars, a peculiar intonation, polyandry, and an inclination to poison strangers.

In Borneo, as in many other places, variations on the theme of locating cannibalism among one's neighbours abound. Certain topics such as accusations of sorcery and poisoning seem to be particularly popular. The attribution of the above-mentioned — largely imagined — characteristics to the Bentian by the Benuaq and the Taboyan can perhaps be seen as an attempt by the latter at defining themselves on a higher level in the regional status hierarchy. Similarly, the more pronounced disinclination of Bentian to address any group differences at all is related to their more "traditional" appearance. Because they are most peripheral, and least ordered and developed according to government standards, their distinctiveness is most derogatory.

Although the national master narrative of development has only shaped asymmetrical group relations in inland Kalimantan for a relatively short period, regional hierarchies of status and power have existed for a much longer time. As in other areas of Southeast Asia, hill peoples and hunters and gatherers have generally been seen as inferior by lowland and coastal peoples. The small and loosely organized upriver groups who live in what I have called the center of the

Luangan territory (the Bentian, the upper Teweh Taboyan, and the Pasir of the upper Kendilo and Telakei) have probably been attributed primitiveness and ensuing low status for at least as long as they have had trade contacts with the surrounding sultanates. As a testimony to this we can perhaps read the stories of men with tail, "...variously stated to dwell in Passir, and on the Teweh river" which Carl Bock (1988[1881]: 143-44) encountered during his travels in Kutai in 1878. A continuing presence of similar stories about hill peoples — often called Bawo¹⁶ — points to the social significance of such storytelling.

LOCAL VARIATION AND INTRAGROUP DIFFERENTIATION

Lack of manifest ethnic orientations is one aspect of what I refer to as lack of significance of ethnicity among the Bentian. Another, which can perhaps be deduced from the first, is lack of ethnic organization. Not only are the Bentian non-corporate in the same sense as the Luangan, boundaries to neighbouring groups are similarly diffuse, and there are no linguistic and cultural differences which set the group as a whole apart from their neighbours. Instead, it seems that the concept of continuous variation, as employed by Moerman (1965) in mainland Southeast Asia, is highly relevant in this case — on the subgroup level as well as on the tribal group level. With respect to, among other things, language, *adat*, kinship terms, and house building style, Bentian living near Benuaq are more similar to them than to those of their own group who live close to Taboyan (and vice versa).¹⁷ Similarly, Barito Luangan are clearly less different from downriver Maanyan than from the Benuaq and Tunjung of the Mahakam who share many features with their central Borneo neighbours.

As seems to be the case also in other parts of Borneo (see Rousseau 1990), intergroup differences among the Bentian and their neighbours are conditioned not so much by ethnic boundaries as by geographical distance. The conclusion to be drawn from this is that locality, in addition to being a central element in ethnic identity formation, is more important than ethnic identity in determining variation. To state the matter in still more general terms, what you are like is determined less by who you are than where you live.

Apart from enabling the continuous character of linguistic and cultural variation in Borneo, absence of ethnic organization also encourages a relatively high degree of local variation. Focusing on the Bentian, a considerable variation in, for instance, *adat* and religious practises is clearly evident already within the group, and sometimes even between adjacent villages. Of special relevance here is the fact that this micro-differentiation not only pertains to language and culture, but also to collective loyalties. Lack of ethnic organization allow a high

degree of intraethnic differentiation. The Bentian actually consist of at least four distinct territorial subunits, which have different migrational histories and form more or less discrete networks of interaction. In terms of consciousness of kind these subunits are not only primary to the ethnic category, they are no more united with each other than with neighbours of other Luangan subgroups.

In many cases, of course, the members of these subunits not only feel closer to other Luangan, they are in fact more closely related to them (as already pointed out, Bentian and neighbouring Luangan frequently intermarry). Consciousness of kind, in these cases, simply reflects kinship relations. When, for example, upper Lawa Bentian distinguish themselves from lower Lawa Bentian by claiming that they are the Bentian *asli*, or when they say that they and the Taboyan of the upper Teweh actually are one and the same people, it is not on the basis of ethnic considerations, but instead, on the basis of kinship, or interaction frequency in general, that they do so. The primary importance of kinship and geographical proximity for collective allegiances allows us, perhaps, to see Bentian ethnicity as contradicting a fundamental Barthian theorem. In a sense, those Bentian who are most distinctively Bentian are those who live in the center of their territory. In the "peripheries", on the other hand, people to a greater degree resemble, and more readily identify with their non-Bentian neighbours. As a rule, collective identity is not so much defined in contrast to other collective identities as it is put together by elements of whatever collective identities are locally relevant. Bentian identity is primarily not defined negatively, and boundaries to other groups are generally given very little attention. Occasionally, however, the central Bentian are conceived of as an model of "Bentian-ness" by other "less pure" Bentian. It can be assumed, however, that this tendency at least partly reflects the increasing importance of a discourse of authenticity which accompanies national integration.

Bornean ethnohistories tell of a state of constant fluid. Until recently, a combination of a high degree of individual mobility, recurrent community migration and non-ethnic orientations gave rise to frequent identity shifts and a profusion of ethnic labels. During the past two centuries, however, the general tendency has been a change toward more fixed and larger categories of identification (Babcock 1974: 199; Brown 1969: 13-14). The number of ethnic groups or categories in Borneo has been steadily decreasing, partly as a result of many individuals and groups having *masuk Melayu*, and partly because many small Dayaks groups have become incorporated into larger Dayak groups.

As an expression of this tendency we can perhaps see the inclination of researchers (e.g. Massing 1983: 85) and some locals to classify the Bentian as a subgroup of the Benuaq. Another, and more striking example seems to be

provided by the village of Baok on the Kias river. According to Mallinckrodt (1927: 584) and Weinstock (1983a: 209) Baok's inhabitants formerly identified as *suku Purei*, a name taken from a nearby mountain. During my stay in the village, however, people were highly reluctant to express a separate identity from their neighbours, and they denied that the term Purei signifies their ethnic or tribal identity. This development appears to be connected with different aspects of national integration (including the establishing of *kecamatan* Gunung Purei), which have resulted in changed notions of ethnicity, according to which an ethnic group consisting of only one village, named after a mountain, is an anachronistic entity.

In the past, the number of Luangan subgroups seems to have been larger. Subgroup identities were probably also weaker than they are today. All people presently referred to as, for instance, Benuaq, have not always been referred to by that name. The "Benuaq" of the Bongan and those of the upper Nyewatan are still not referred to as Benuaq, at least not by the Bentian and the Benuaq of the Lawa river, but instead, as Bongan and Daya, respectively. The ethnic picture of the upper Teweh river as reported by Schwaner in the mid-nineteenth century was significantly different from that of today. Instead of Taboyan and Purei he recorded names such as Anga, Njamet, and Bonoï (1853: 117-18).¹⁸ On the upper Bongan, a tributary of the Mahakam, some small groups called Bawo (Baoe) and Lowangan (Loewangan) reported by Jongbloed (1939: 26) and Knappert (1905: 619-20) do not seem to exist anymore.¹⁹

DAYAK IDENTITY AND NATIONAL INTEGRATION

An aspect of ethnic change which I have not discussed so far is the increasing importance of Dayak identity. Among the Bentian and their neighbours, a notion of a general Dayak identity is not only firmly established; in their contemporary situation it frequently constitutes a contextually relevant identity. "Dayak consciousness" is also an important reason why these groups are unwilling to distinguish between themselves, and it can perhaps account for why many Bentian during my fieldwork preferred to call themselves Dayaks, instead of using some more specific ethnonym.

A growing number of Dayaks do no longer consider the word Dayak as derogatory or externally imposed. The aversion of scholars to this term is not always shared by the people that they have studied. On the contrary, for the latter it often expresses an unity of a number of small and vulnerable peoples sharing besides essentially similar orientations to life the same economical and political interests in their rapidly changing world. As Mallinckrodt remarked already in the 1920:s, autonymic usage of the term, exemplified in names of

political organizations such as *Sarikat Dayak*, expresses the solidarity of the Bornean population (1928: 10). This is not to say, however, that the term Dayak is commonly employed as an instrument of resistance to national integration. Instead, it seems to me that it rather encourages integration by providing an appropriate and properly balanced conceptualization of belonging to an "Unity in Diversity".

Much writing on Bornean ethnicity, including this article, have tended to neglect the significance of a general Dayak identity, and the importance of Dayak-Malay relations. My statement above, that the Bentian generally give very little attention to boundaries to other groups, is only true in so far as inter-Dayak relations are concerned. For many Dayaks, experiences of, for instance, logging, transmigration and relocation, have dramatically altered their notions of self-identity. For these Dayaks in particular, but to some extent for all Dayaks, relations to non-Dayaks and the nation-state are issues that can not be ignored.

That ethnicity, nevertheless, has not become an overt and outspoken strategy for Kalimantan Dayaks, is due to their in some sense successful integration to the nation-state, and, perhaps, to their still persisting non-ethnic orientations. In all respects, however, they have not refrained from political action. A major exception is Ngaju's struggle for recognition of Kaharingan, which resulted in Hindu-Kaharingan receiving official status as a religion (*agama*) in 1980 (see Weinstock 1981). As this and other examples — including the *nyuli* movement — show, religion constitutes an important arena of Dayak identity politics. Among the Bentian, curing rituals are sometimes induced by encounters with "others", and relations to Muslims appears to constitute a central theme in *belian sentio* — a type of curing ritual in which the shaman communicates in Kutai Malay and Indonesian with downriver spirits.

Religion, more than ethnicity in a strict sense of the term, could in my belief prove fruitful as a focus for studies of Dayak-Malay relations. Among the Bentian, as among many other Dayaks, ethnicity is not an important idiom of identity negotiation. Rather than being expressed in overt and aggressive rhetorics of primordial distinctiveness, manifestations of self-identity are characteristically introvert, cast in indirect and non-political language, and disguised by inclusiveness. In this situation, ethnicity should perhaps not be defined too narrowly. Ethnonyms, ethnic taxonomies and ethnohistories can only take us so far. An analysis of ethnicity oriented to locally significant issues would benefit from considering also ethnicity as articulated in less formal social practises and more "marginal" fields of identity politics.

CONCLUSION

Borneo ethnographers have sometimes expressed surprise over the great ethno-cultural complexity which characterizes their study objects, and the simultaneous lack of interest that the Dayaks themselves seem to have in this perceived complexity. To a considerable degree, however, the former feature of Borneo societies is an artifact of outside efforts to describe it — in non-contextual terms — whereas the latter chiefly reflects western expectations about the importance of ethnicity.

For the Luangan, more than for many other Dayaks, Miles description of the Ngaju as a people, not of one great tradition, but of many little traditions, is highly relevant (1976: 76). Sociologically, Luangan constitutes a loosely defined category referring to a large number of localized groupings, whose members in varying degree recognize, not so much a common identity as a people, as identity with a certain religious tradition. For these people, subgroup identity, or more restricted local identities, are primary.

Ethnicity, as defined from a western viewpoint, has "traditionally" had a limited conceptual and social significance in Borneo. For Dayak groups such as the Bentian, it still has. National and regional politics nevertheless profoundly affect local identity and intergroup relations, also for the most peripheral of Dayaks. Today, lack of significance of ethnicity in Indonesian Borneo frequently has both an indigenous and an imported aspect.

NOTES

1. Joseph Weinstock's dissertation *Kaharingan and the Luangan Dayaks* (1983) is the only non-Indonesian full-length monograph exclusively dealing with the Luangan. To my knowledge there is actually nothing else in English on the Luangan — except for a couple of articles by Weinstock himself (1983b, 1987) and by Andreas Massing (1982, 1983), the latter specifically concerning the Benuaq subgroup. Field work by foreign Ph.D students has, however, recently been carried out among the Benuaq and the Bentian.

There is a little more Indonesian material, the accessibility of which unfortunately is rather poor. This material include several *Akademi Pemerintahan Dalam Negeri* and other government reports, as well as a number of lower level university reports. The greater part of these reports consist of brief

surveys, and all of them which I have come across concern some specific Luangan subgroup(s), most frequently the Benuaq and the Tunjung. Among the most important are Sarwoto Kertodipoero's *Kaharingan: Religi dan Penghidupan di Pehuluan Kalimantan* (1963) on the Dusun, L. Dyson's *Sistim dan Motivasi Gotong Royong pada Sukubangsa Dayak Tunjung di Kabupaten Kutai* (1979), and Yohannes Bonoh's *Belian Bawo* (1984/85), on the Benuaq. A number of linguistic surveys of the Bawo, Lawangan and Taboyan do perhaps also deserve notice (*Morfologi dan Sintaksis Bahasa Lawangan* 1992; *Morfologi dan Sintaksis Bahasa Tawoyan* 1989; *Struktur Bahasa Bawo* 1989; *Struktur Bahasa Lawangan* 1985; *Struktur Bahasa Tawoyan* 1992).

Finally there is some Dutch material, both published and unpublished, which date back to colonial times. Most of this material consists of travel accounts. As far as I know it does not include any lengthy anthropological study specifically concerned with the Luangan or a Luangan subgroup. Among the most useful references we find Grabowsky (1888), Knappert (1905), Mallinckrodt (1974[1925], 1926, 1927, 1928), and Schwaner (1854). Of special interest for the Bentian is an article by Witkamp (1928).

2. Six months of fieldwork was carried out in 1993 together with Isabel Herrmans, mainly in kec. Bentian Besar, kab. Kutai, Kaltim and kec. Gunung Purei, kab. Barito Utara, Kalteng. Thanks are due to Lembaga Ilmu Pengetahuan Indonesia for the research permit, professor Parsudi Suparlan at Universitas Indonesia for sponsoring, and the Academy of Finland and the Nordic Institute of Asian Studies for financing.
3. For approximate population figures for Luangan subgroups, see Weinstock (1983a: 198-226). It is difficult to give more than very rough estimates because *suku* is not specified in censuses. Population growth can perhaps be assumed to be relatively slow, and to some extent counteracted by conversion to Islam, which implies change of ethnic identity.
4. Good estimations would require collecting data on religious identification on the district (*kecamatan*) level. Weinstock's data (1983a: 198-226) indicate that approximately half of Luangan's population follow Kaharingan.
5. Ot Danum and some Luangan (Benuaq and Tunjung), who live close to central Borneo Dayaks, constitute a relative exception to this rule.
6. Again, those groups bordering to Central Borneo Dayaks form an exception, especially the Ot Danum who used to be greatly feared by their neighbours.

7. Ngaju were formerly used only in a strictly local sense to refer to upriver Dayaks; most often lower level etnonyms such as Kahayan or Katingan was used. Iban was originally a Kayan exonym, and Land Dayak was a term created by the Brookes to refer to inland Dayaks in distinction to Iban (Sea Dayak). See, for example, Miles (1970: 291-92), Avé (1972: 194) and Harrison (1950: 273), respectively.
8. The most significant exception is the Bukit (called Meratus by Tsing 1984, 1993), a linguistically and culturally quite different Dayak group of the province of South Kalimantan, who Mallinckrodt included in the Lawangan category. Regarding the other subgroups, it can be pointed out that Pahu no longer exist because of conversion to Islam (Weinstock 1983a: 91, 203). Large scale conversion has also led almost to the "disappearance" of the formerly numerous Pasir, of which only a few isolated villages remain Dayak (*ibid.* 90, 200).
9. Neten Pali was by most of my informants claimed to be located at the headwaters of sungai Telakei, in interior Pasir (a regency of East Kalimantan). According to Weinstock (1983a: 42, 72), Neten Pali refers to a much larger area, a sort of upland center which comprise the headwaters of several semi-large rivers running outwards in all directions (Teweh, Montalat, Ayuh, Karau, Tabalong, Kendilo, Telakei, Tuang and Lawa).
10. Among the upper Teweh Taboyan and the Purei, many people which I talked with reported Luangan as their only ethnonym.
11. Hudson (1967a) placed Tunjung in a separate category within the Barito complex; a great part of the existing similarities between Tunjung and other Luangan languages are probably the result of borrowing from Benuaq.
12. For descriptions of the *nyuli* movement see Feulliteau de Bruyn (1934), Mallinckrodt (1974[1925]) and Weinstock (1983a: 120-24). This movement and a number of lesser known similar movements which preceded it promised the return of the age of immortality. The word *nyuli* derives from the verb *suli*, to resurrect, and it was by stating that he had procured the sacred gong, Tunkara Wanten, from Gunung Lumut, that the leader of the movement, Tumenggung Badar, could substantiate this promise. According to mythology, man was originally immortal, but gained mortality when the greedy Mbung Munur, who wanted to experience death, stole the sacred gong which had kept death away.

13. In my view, the soul's journey to Gunung Lumut recited during death rituals is not necessarily a reverse version of the route along which the community of the deceased migrated to its present location. Primarily, the route followed by the soul is simply the route to Gunung Lumut. Moreover, the status of the upper Teweh area as a ritual and mythological center suggests the possibility that this feature of Luangan eschatology could be one of many which have spread with the Luangan form of Kaharingan.
14. Dilang Putih, Suakong, Jelm Sibak, Sembulan (administratively a subvillage of Jelm Sibak), Sambung, Tende, Randa Empas, Tuku, Penawang, Lendian, Kendisi, and Tambaba.
15. Dutch nineteenth century literature on the *Zuider- en Oosterafdeeling of Borneo* abounds with references to the Pari Dayaks. These supposedly fierce headhunters were said to live in Kutai, by a tributary of the upper Mahakam with the same name, and to make frequent incursions into the territory of what now is Central Kalimantan. Today there seems to be no Dayak group who use the term Pari to refer to themselves. It is not unlikely that it was always used only as an exonym. To which upper Mahakam Dayak group it referred is unclear to me; it might have referred to several groups rather than just one. The term was probably not only used by the Dutch, however, since Taboyan and Bentian still use it when talking about the past raids of this people. King (1979: 12), who comment on von Kessel's (1850: 167, 185-86) usage of the word points out that he himself never came across it during his fieldwork, but that the word *pare* "appears in Upper Kapuas Punan and Kayan languages, and in Maloh ritual language, meaning quite simply 'rice'". It can be noted here that *pare* also means rice in Luangan languages; *Pari* is, however, pronounced with emphasis on the first syllable, whereas neither is stressed in *pare*, so an association of the terms on this basis alone is perhaps unwarranted.
16. In Luangan the word bawo means "above". As an ethnonym Bawo has been used for various upland Dayak groups; there have been Bawo, for instance, by the upper Bongan, the upper Ayu, and in several parts of Pasir. In principle, Bawo can be used to designate any hill or upland people (the Bentian, for instance, can be referred to as Bawo). Today, however, there is probably only one group — those of the Ayu river — who are officially referred to as Bawo, and it is to this group that Weinstock's Luangan subgroup Bawo refer (1983: 214).

17. In obtaining these data I combined general observations with rather systematic comparisons in every second Bentian village and in a few neighbouring Bentian and Taboyan villages. Without discussing any further details, differences in house building style perhaps merit special interest. Judging from still remaining "traditional" houses and local information about the past it seems that extended family houses were larger and more longhouse like among the Bentian than among their southern Luangan neighbours. Like their neighbours to the north (the Benuaq), the more northerly Bentian also frequently built houses with a veranda and family compartments, whereas extended family houses of the more southerly Bentian usually had only one large room.
18. Schwaner's Njamet, referred to as Nyumit by Mallinckrodt (1927: 583) are probably the same people as the present-day upper Teweh Taboyan, who in terms of identification and certain customs are somewhat different from the lower Teweh Taboyan. Banoi, whom Schwaner (*ibid.* 118) reported as living at the headwaters of the Teweh and on the Kias, and whose customs he described as differing from those of the other inhabitants of the Teweh and approaching those of the Dayaks of the east coast, could be the ancestors of the Purei, who, according to Mallinckrodt (*ibid.* 584), came from Pasir.
19. According to Knappert both groups belonged to tribes whose representatives he had also encountered in the Tabalong district of present-day South Kalimantan; other representatives of the Loewangan he reported to live in Pasir (1905: 619-20). Jongbloed remarks that the number of both groups were decreasing as a result of islamization (1939: 26).

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A NEW BIBLIOGRAPHY OF BRUNEI DARUSSALAM
(Review Article)

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Francis, Simon, comp. and ed.; *Brunei Checklist, A Bibliography of English-Language References Relating to Brunei Darussalam. Bibliography and Literature Series, Paper No. 10. Centre for South-East Asian Studies, University of Hull; Hull, 1993, xii, 283 pp. ISSN 0269-1760; ISBN 0-85958-830-0. No price.*

For every scholar interested in Brunei Darussalam, a new bibliography should be a cause for rejoicing. The editor indicates that the purpose of this checklist is "... to provide a first step in the necessary process of the compilation of a full bibliography of the national written heritage of and about Brunei Darussalam" (xi). Unfortunately, the results are disappointing, both in terms of coverage and ease of use.

A number of restrictions--arbitrary in the sense that they are neither argued nor justified, but simply stated--were made regarding which references were to be included in the checklist and which to be excluded. Some examples follow.

1. All publications "dealing only with, for example, Sarawak or North Borneo while those areas owed allegiance to Brunei" (xi) are excluded. This restriction prevents a scholar from gaining ready access to numerous publications and unpublished sources pertinent to Brunei and its history. It should be pointed out that those areas which are now parts of Sarawak and Sabah did not simply "owe allegiance" to Brunei, they were parts of Brunei. This restriction is not applied consistently (e.g., some earlier works, such as Jacob 1876, Keppel 1853, Low 1848, Mundy 1848, St. John 1899, Templer 1853, and Whitehead 1893 are excluded from the checklist; but others such as Beccari 1904 [checklist item #944], Belcher 1848 [#1210], Burbidge 1880 [#834], Keppel 1847 [#1276], Marryat 1848 [#1283], St. John 1879 [#216], and 1863 [#1300] are included).¹
2. References are restricted to English-language titles, excluding important works on Brunei in Dutch, German, and Chinese--to say nothing of Malay publications, without which it is impossible to gain a reliable synoptic understanding of Brunei Darussalam. For example, while the *Brunei Museum Journal* is more or less adequately covered in the checklist (but see section no. 8, below),

the Silver Anniversary volume (Anon. 1990) is not included because it is in Malay. Also the Museum's numbered irregular monograph series, the *Penerbitan Khas* ('Special Publication') is mentioned only under its translated English title (*Penerbitan Khas* No. 9, as #1288, No. 12, as #2068; No. 13, as #1438--but only the latter two can be found in the Index under the heading "Brunei Museum"). The translated English title nowhere appears on the actual publications. Tom Harrison's *The Minutti Collection of Bronzes in Brunei*, *Penerbitan Khas* No. 8, is listed in the checklist (as #211), but without the notation that it is a 'Special Publication'. At least one other Special Publication, No. 20, (Zainal and Hajjah Saffariah 1990) is not listed, because it is in Malay. The decision to exclude Malay-language titles seem, however not to have been strictly followed (e.g., items numbered 148, 149, 199).

3. "Archival materials are excluded from the checklist" (xi). This restriction is not always followed, as a number of unpublished papers and manuscripts are included (e.g., items #1452, #1500, #1936, #1992, etc.). For yet other papers, it is difficult -- without physical inspection -- to determine whether they are published or unpublished (e.g., items #58, #59, #499, #1041, #1060, #1287, etc.).
4. "Newspaper accounts of less than a column have been excluded and *The Borneo Bulletin* has not been covered" (xi); and 5. "Periodical articles of less than ½ page have been excluded" (xi). The checklist would have been improved had these exclusions not have been made. The checklist includes numerous citations to newspapers and news magazines, most of which are widely distributed around the world and indexed by a number of services (e.g., *Asiaweek*, *The Daily Telegraph*, *The Economist*, *Far Eastern Economic Review*, *The Financial Times*, *Fortune*, *The Guardian*, *The Listener*, *Illustrated London News*, *Muhibah* (the inflight magazine of Royal Brunei Airlines), *New Commonwealth*, *New Republic*, *Newsweek*, *Silver Kris* (the inflight magazine of Singapore Airlines), *The Spectator*, *Time*, *The Times*, *US News and World Report*, *The Wall Street Journal*, et al.). It would have been most helpful for scholars to know how these serials were examined and approximately how many articles of less than ½ page were excluded. What years were covered? Were the titles searched systematically, year by year, utilizing published indexes, or are the inclusions hit-or-miss, obtained haphazardly from various sources, such as inclusion in the bibliographies of other published works, or word of mouth? Useful as these entries are, I would have preferred an index to *The Borneo Bulletin*, as indexes to most of these serials are already widely available.

I find a number of other weaknesses in the checklist, listed as follows.

6. How the 2243 numbered entries in the checklist were obtained is not explained. The preface states that the compiler was University Librarian at the

Universiti Brunei Darussalam (UDB) in the late 1980s, and that "he had access to the publications produced in the country and in building the Library there [at UDB], he could form an overall view of the literature on Brunei Darussalam" (ix). Were the entries in the checklist obtained exclusively from the UDB Library holdings? Was the Research Library of the Brunei Museum examined? The Research Library at the Dewan Bahasa dan Pustaka Brunei (Brunei Language and Literature Bureau)? The Public Library at the Dewan Bahasa dan Pustaka Brunei? The holdings of the Pusat Sejarah (Brunei History Centre)? Were such other relevant Southeast Asian centers as the National Library of Singapore, the library of the National University of Singapore, the library of the National University of Singapore, the Arkib Negara Malaysia, and the library of the University of Malay in Kuala Lumpur also consulted? Any bibliographical tool which purports to be comprehensive should make clear which institutional resources were utilized and how the citations were obtained.

7. No dates of the coverage of entries in the checklist are given. One English translation of Pigafetta's account (#1298) of his visit to Brunei in 1521 (published 1975--there are numerous other editions), and John Jesse's letter from Balam-bangan of July 20, 1795 (#1274--published "1791-7") are given, suggesting possible beginning dates of the coverage; no mention is made of the last date of publication for the inclusion of citations, although I note some entries dated 1992.

8. Inclusion of references in the checklist is somewhat less than comprehensive. For example, sampling just two issues of the *Brunei Museum Journal* (2.3, 1975 and 6.1, 1985) reveals three articles omitted in each which should have been included (articles by [Mohd.] Jamil; Metussin Omar; and Lim and Sharifuddin in the former; and articles by Hai, Warren, and Banks in the latter). I later discovered, quite by accident, while flipping through the pages of the checklist, that the article by (Mohd.) Jamil is in fact included, as item #1273, but not as listed in the Index, as #1293 (which is an article by Robert Nicholl, not [Mohd.] Jamil, suggesting that the Index was not thoroughly proofread).

9. The organization of the checklist makes it extremely difficult to use. The bulk of the checklist consists of the references organized into 241 subject divisions (pp. 1-253), with the remainder consisting of an "Index of Authors and Anonymous Titles" (pp. 255-283). An especially maddening and eccentric feature is the dispersal of "Brunei Darussalam" corporately authored entries throughout the 241 subject divisions (including 42 toponyms, 7 ethnonyms--which are simultaneously toponyms--and a number of other subjects which do little to aid a reader not already thoroughly familiar with Brunei). A much needed feature of a good Brunei bibliography is to have all Brunei Darussalam corporately authored publications listed together in one collocation, in the bibliography, not, as the

checklist has it, in the index, with the 148 actual entries scattered throughout the body into 51 separate subject categories; as the following table illustrates.

The saturation rate of these subject categories for Brunei Darussalam corporately authored publications is only 2.96 numbered entries per subject category. Scattering these 148 entries into 51 separate subject categories makes it very difficult to evaluate the quality of the coverage of official publications, that constitute some of the most crucial and useful sources on Brunei subjects for scholars. Official government publications are probably the single most poorly "bibliografied" publications on Brunei Darussalam.

SUBJECT [# entries]		*:Brunei toponym
ADMINISTRATION{8}	ELECTIONS{2}	LAW [3]
ART{1}	ELECTRICITY{1}	LEGISLATIVE COUNCIL [1]
AVIATION{1}	ENVIRONMENT{4}	MALARIA{1}
*BELAIT{1}	FAUNA{1}	MEDICAL{2}
BIBLIOGRAPHY{2}	FINANCE{3}	METRIFICATION{1}
*BRUNEI-MUARA{1}	FISH{3}	NARCOTICS{2}
CEREMONY{1}	FLORA{1}	OIL{1}
CIVIL SERVICE{1}	FOREIGN AFFAIRS{5}	PLANNING{5}
CLIMATE{2}	FORESTRY{12}	POPULATION{4}
COASTS{1}	FORESTS{2}	PROTOCOL{1}
COMMERCE{13}	GENERAL{8}	STATISTICS{2}
CONSTITUTION{1}	GEOGRAPHY{2}	*TEMBURONG{1}
CURRENCY{1}	GOVERNMENT{2}	TIMBER{2}
DEFENCE{1}	HISTORY{4}	TRAVEL{1}
DEVELOPMENT{9}	HOUSING{1}	*TUTONG{1}
ECONOMY{1}	ISLAM{2}	WATER{1}
EDUCATION{6}	LABOUR{1}	WOMEN{2}

10. For the number of citations covered, the subject classification is far too elaborate. Subject classification is one of the more demanding and frustrating tasks imaginable (as anyone who has ever tried to make sense out of the U. S. Library of Congress Subject Classification surely knows). The overelaborateness of the subject classification has resulted in the volume filling 253 A-4 size pages. The checklist could have been reduced to 141 pages had each reference had been listed only once, and an already existing, tried and tested, classification utilized, rather than trying to invent one de novo.² Other bibliographies covering Brunei (e.g., Helbig 1955, Cotter 1965, Krausse and Krausse 1988, Rousseau 1988) utilize a similar approach (i.e., an index system geared to the numbering of individual entries in the body of the bibliography), but the particular way the classification

system is implemented in this checklist creates considerable confusion in using it.

11. The difficulties in using the checklist arise because so many of the entries are unnumbered cross-references, forcing the reader to refer to the numbered "main" entry for full information. The cross-references themselves are incomplete citations. The approaches taken by other Borneo bibliographies (e.g., Helbig 1955, Cotter 1965, Krause and Krause 1988, Rousseau 1988) are much more "user-friendly" in this regard. For example, in this checklist, all 149 entries under the subject 'Sarawak' (pp. 210-219) are unnumbered (and thus incomplete), as are the 142 entries under 'Sabah' (pp. 202-209), and the 133 entries under 'Thesis' (pp. 237-243). Of the 260 subject categories utilized in the checklist, 55, holding a total of 568 entries, contain no main entries, causing the user much needless flipping of pages, trying to locate the next consecutively numbered entry, when trying to locate a numbered item from the Index.

12. One final weakness of the subject classification remains. The author indicates that "During compilation a thesaurus of some 240 subject keywords [260 subject categories are actually used; see pp. i-v--ARM] was built up as a result of examining material for inclusion. Up to 5 subject keywords have been assigned to each reference. The allocation of particular subject keywords to a particular item has been subjective and particularly so in those cases where the publication has not been examined by the compiler" (xii). We are given no hint of the methodology or thinking lying behind the choosing of the "keywords", leading to, in my judgment, an often unhelpful subject classification. Some subjects will be opaque to users not already quite familiar with Brunei Darussalam and the Malay language (e.g., toponyms, ethnonyms, Chaya, Fayed, J.M.B.R.A.S., Kapur, Kerangas, Konfrontasi, Kris, QAF). Other subject headings just seem strange (Cabbage, Coasts, Fertilizer, Minutti, Water Melon). Separating yet other categories: Census (11 citations, no main entries) from Population (25 citations, 22 main entries); Gas (20 citations, 13 main entries) from Oil (109 citations, 90 main entries); and Elections (11 citations, 6 main entries) from Politics (94 citations, 71 main entries), rather than combining these into single categories such as "(Population) Demography", "Petroleum Products", and "Political Affairs"; respectively, I submit, creates needless hairsplitting.

My calculations indicate that the checklist contains a rough total of 4023 entries, of which 2243 are numbered, "main" entries, giving 1780 duplicated entries, for a duplication rate of about 79 per cent. I estimate that if a simpler subject classification scheme had been utilized (for example, that of Cotter [1965], with each reference numbered, and included only once, with an index consisting only of numbered entries under each heading), the main body of this checklist could have been shortened (these calculations indicate that there are about 15.9

entries per page) by 112 pages, from 253 pages to 141 pages, and consequently made the volume much easier to manipulate physically.³

13. No mention is made of *The Daily Star/Bintang Harian*, Brunei's only daily newspaper, which published between 1966 and 1971. This title has been microfilmed by the Singapore National Library.

14. No entry is given for the weekly newspaper, the *Borneo Bulletin*, which began publication in 1952/1953. This title has been microfilmed by Rekordak, beginning with 1955.

15. The checklist does not contain Nicholas Tarling's *Britain, the Brookes and Brunei*, a 578 page, detailed and very important monographic study of European contact with Brunei over a 400 year period, from the 16th to the early part of the 20th century, dealing primarily with matters to the south of Brunei (Tarling 1971). This omission is inexplicable. The checklist does include Tarling's biography of Sir James Brooke (item #219), but it omits his *Sulu and Sabah*, a 385 page, detailed and scholarly study containing over 80 references to Brunei, dealing primarily with matters to the north of Brunei (Tarling 1978).

16. There appear to be numerous other relevant works, in English, which are omitted from this checklist. It is possible to mention only a few of these here. On Brunei itself, I do not find: two important intelligence works preparatory to the Allied invasion of Brunei in 1945 (Allied Geographical Section 1944, 1945), several pamphlets dealing with petroleum (Anon. n.d.a, n.d.b, n.d.c); a pictorial volume commemorating the current Sultan's *puspa* (Anon. 1968), several official publications (Brunei n.d., 1962, 1968) including a major land use survey of the country (Brunei 1969), a short novel relating experiences under the Japanese occupation of Brunei 1941-1945 (Harun 1960), two important articles (Anon. 1821, Cleary and Hairuni 1992), a trilingual biweekly magazine (Brunei 1969-), and reports of at least three pre-1900 visits to Brunei (Forrest 1780, Lay 1839, United States 1852). There are, in addition, literally dozens of other sources not found in this checklist which, while not primarily concerned with Brunei, are nonetheless pertinent to a wide variety of subjects a scholar might wish to use in any study of the country, its culture, and history. Of these I cite only 30 (Anon. 1955, Ariff 1970, Bewsher 1959, Brackman 1970, Braddell 1915, Brown 1988, Casey 1947, Chew 1990, Coèdes 1968, Crisswell 1978, Crawford 1856, Great Britain 1961, 1969, Haddon 1901, Hall 1981, Harrison 1950, Heyward 1963, Hirth and Rockhill 1911, Hunt 1812, Leyden 1814, Liefer 1968, Meilink-Roelofs 1962, Pires 1944, Sandin 1980, SarDesai 1989, Simandjuntak 1969, Singh 1986, Wang 1964, Wolters 1967, 1970).

The checklist contains a number of nettlesome errors, among which are the following.

17. The conflation of the authors Sir Hugh Low (1824-1905) (#2094, 2095, 2096, 2097) and his son Hugh Brooke Low (1849-1887) (#394); only the latter is listed in the Index, where the numbered entries of the former are mistakenly attributed to the latter and are also so listed in the body of the checklist.
18. The conflation of the authors P. H. Shariffuddin (#66, et al) with P. H. Y. Sharifuddin (#792); only the former is listed in the Index.
19. The inclusion of Treacher's 1889 article, 'British Borneo: Sketches of Brunai, Sarawak, Labuan and North Borneo [Part I]' (#1319), but exclusion of [Part II] of this article, published in the next issue of the same journal (Treacher 1890). Another reference (#2125) attributed to Treacher is listed as if it were in two parts (with pagination of the second listed as "10-?") is actually four separate items (Treacher 1884; Treacher and Yussof 1884a, 1884b, 1885). Another article by Treacher (1886) is omitted.
20. The listing of Tom Harrisson's article, 'Kedayan Rafts', as 'Kadayan Crafts' (#380) and filed under the subject 'CRAFTS'.
21. The use of the subject category 'PUNAN' for only three references (#1911, 1912, 1913), all of which contain the ethnonym 'Penan', but not 'Punan', in their titles.
22. The citation of author entries for Malay names in improper format (see Omarali and Mat Rais, 1985, for examples of proper citation formats for Malay names). Generally speaking, the checklist strips off some--but not all--status markers, and treats an author's given or first name as if it were a Western style patronymic, family or last name, whereas in fact there are no family or last names in Malay, which follows a Semitic, not a European pattern of name structure. For example, the checklist's citation of the author (#1488) "Asmah, Omar" should be 'Asmah Haji Omar'; "Syed Hashim, Abdullah Alhabsi" (#542) should be 'Hashim Abdullah Alhabsi, Syed'. Sometimes the citations are more garbled, e.g., (#657) "Sarbanun, Amp. Yusof Ampuan" should actually be 'Yusof Ampuan Sarbanun, Amp.'; and (#1589, 1979) "Omarali, Anak Hashim" should actually be 'Omarali bin Pg. Anak Hashim, Pg.' ('Pg. Anak' is a status marker; thus, in this case, the citation arbitrarily splits the status marker, discarding one half and retaining the other half). Sometimes a "false" patronymic is implied, e.g., in the case of the Sultan, when his father's name is not given (#2064), "Bolkiah, Sir Muda Hassanal" should be 'Hassanal Bolkiah, Sir Muda' ('Hassanal Bolkiah' is a dual given or first name). In the case of female authors, when the female's given or first name is

listed as if it were a patronymic family or last name, thus, "Zaharah, Mahmud" should be 'Zaharah [binti] Haji Mahmud' [the author's first or given name is 'Zaharah'; 'Mahmud' is her father's given or first name ('Haji' is a status marker, indicating her father has made the Pilgrimage to Mecca, but in Brunei, as in other Malay-speaking areas, is **part** of the name, and is so cited in #1900). While in this case the author will be recognized as a female because 'Zaharah' is a female's name, never a male's. In another case (#91), the second author is listed as "Puteh, Ismail". This name should be 'Puteh [binti] Ismail', and is especially confusing because 'Puteh' can be **either** a female's or a male's name ('Ismail' is her father's given or first name). The most garbled Malay name I found is the citation of the author (#1443) "Jamil, Al-Sufri", which should be -- in a full citation -- 'Mohd. Jamil Al-Sufri bin Begawan Pehin Udana Khatib Dato' Seri Paduka Awang Haji Umar, Pehin Orang Kaya Amar Di-Raja Dato Seri Utama (Dr.) Awang Haji', as it is actually given in the reference cited (i.e., #1443). The element "Al-Sufri" is an especially prestigious status marker (very rarely given), conferred upon him by the Sultan. Brunei names can be very long, particularly if the individual has been the recipient of numerous titles, honors, and awards. This checklist makes little attempt to deal with them in anything other than a cavalier and sloppy manner.⁴

23. Failure to obtain full citation information for article in serials. For example, author/article title/serial title/pagination, but no date, no volume number, no issue number: (#2059, 2118); article title/serial title/volume number/issue number, but no pagination: (#2122); article title/serial title/date, but no volume number, no issue number, no pagination: (#2119). As readers who regularly need to obtain materials not found in their own institution's libraries well know, Inter-Library Loan librarians do not process incomplete citations.

To sum up, the serious scholar still has no single authoritative Brunei bibliography to consult. In order to have as complete an access to all the published (and many of the unpublished works) on Brunei as possible, it remains necessary to have access to (in addition to the internal bibliographies of major and minor published works on Brunei), the previously published bibliographies on Brunei, Sarawak, and Sabah, which contain substantial numbers of references on Brunei Darussalam not available elsewhere. A list of these (with no guarantee of comprehensiveness) is appended at the end of this review.

The checklist has two good features. I was able to discover numerous references to publications previously unknown to me, and, it was published in 1993, and is thus more recent than the three other most useful bibliographies dealing with Brunei subjects (i.e., Helbig 1955, Cotter 1965, and Krause and Krause 1988).

I realize that I have not reviewed this checklist as the author and publisher might have wished, but rather strictly, as a scholarly source. I do believe, however, that my criticisms are fair, legitimate, and needed. The purpose is to alert scholars to the fact that there is no existing published bibliography, whether in-print or out-of-print, readily available or not, which approaches anything like a comprehensive coverage of Brunei Darussalam subjects. I am thus uncomfortable with the claim in the preface that, with the publication of this checklist, "we are confident that much of the basic work has now been done in regard to English language publications" (ix). I think this review demonstrates that much basic work remains to be done. Achieving the goal of producing a fully comprehensive bibliography for Brunei Darussalam remains a task for future bibliographers.

APPENDIX

A BIBLIOGRAPHY OF BIBLIOGRAPHIES ON
BRUNEI DARUSSALAM SUBJECTS

* : not examined

- Avé, Jan, Victor T. King, and Joke G. W. de Wit
1983 West Kalimantan, A Bibliography. Koninklijk Instituut voor Taal-, Land- en Volkenkunde Bibliographical Series 13. Dordrecht: Foris. [a few scattered references throughout relating to Brunei]
- Bernardo, Gabriel Adriano
*1972 A Critical and Annotated Bibliography of Philippine, Indonesian and Other Malayan Folk-Lore. Museum and Archives Publication No. 5. Cagayan de Oro: Xavier University.
- Chua Sui Gim
1981 Guide to Modern Archives and Manuscripts Found in the United Kingdom Relating to Brunei, Sabah and Sarwak. Brunei Museum Journal 5(1)56-77.
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1984 Dialek Melayu Brunei: Catatan Bibliography. Dewan Bahasa 28:390-411.

- Cotter, Conrad P.
1965 Bibliography of English Language Sources on Human Ecology, Eastern Malaysia and Brunei. With the assistance of Shiro Saito. 2 vol. Honolulu: Department of Asian Studies, University of Hawaii. [scattered references throughout relating to Brunei; index lists 519 references to Brunei]
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1941 A Descriptive Catalogue of the Books Relating to Malaysia in the Raffles Museum & Library, Singapore. Journal of the Malayan Branch of the Royal Asiatic Society 19(3), i-ii, 1-125. [scattered references throughout relating to Brunei]
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- 1969b Brunei in J.M.B.R.A.S. XLI, 1968, 2. Brunei Museum Journal 1(1)190-191. [10 annotated references to Brunei from the Journal of the Straits Branch of the Royal Asiatic Society and the Journal of the Malayan Branch of the Royal Asiatic Society]
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 1962 Bibliography of Indonesian peoples and Cultures. 2nd ed. Thomas W. Maretzki and H. Th. Fischer, eds. New Haven: Southeast Asia Studies, Yale University, by arrangement with Human Relations Area Files. [a few scattered references throughout relating to Brunei]
- Krausse, Sylvia C. Engelen and Gerald H. Krausse
 1988 Brunei. World Bibliographical Series Volume 93, xliii, 249 pp. Oxford, Clio Press. [660 annotated references to Brunei]
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 *1982 Prehistory and Archaeology of Malaysia and Brunei: A Bibliography. Kuala Lumpur: Perpustakaan Universiti Malaya.
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 1966 Checklist of Holdings on Borneo in the Cornell University Libraries. Data Paper Number 62, [ii], 62 pp. Ithaca: Southeast Asia Program, Department of Asian Studies. [scattered references throughout relating to Brunei]
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NOTES

1. I adopt the procedure of citing, in the following 'OMITTED REFERENCES CITED', only the references omitted by Francis. The references I mention which are included in the checklist are identified only by Francis' main entry reference number and are not included in the following 'OMITTED REFERENCES CITED'.
2. Cotter, for example, utilizes only 35 subject categories, of which 28 are subcategorized into General, Brunei, Labuan, Sabah, Sarawak, Kalimantan, and Malaysia; and one, Ethnic Groups, subcategorized into specific ethnic groups, in order to classify 6203 numbered entries (1965:720-755). In an Appendix an additional 1114 Papers of the British North Borneo Chartered Company are listed separately (Cotter 1965:666-719).
3. For an example of a well-constructed subject classification, with a cross-referencing system, having much the same goals as that of this checklist, but lacking its defects in ease of use, see Harold C. Conklin, Folk Classification: A Topically Arranged Bibliography of Contemporary and Background References Through 1971 (New Haven: Department of Anthropology, Yale University, 1980).
4. Consultation of the official Anglo-American Cataloging Rules (see Michael Gorman and Paul W. Winkler, eds., Anglo-American Cataloging Rules, 2nd ed.; Chicago, American Library Association; Ottawa, Canadian Library Association; pp. 390-391) could have prevented these mistakes.

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THIRD BIENNIAL INTERNATIONAL CONFERENCE OF

THE BORNEO RESEARCH COUNCIL

The Third Biennial International Conference of the Borneo Research Council was held on the campus of Universitas Tanjungpura, Pontianak, Kalimantan Barat, Indonesia, from July 10-14, 1994. The Council had met in Kuching, Sarawak, in 1990, and Kota Kinabalu, Sabah, in 1992.

The Conference was opened by the Deputy Governor who, on behalf of The Honorable Governor of West Kalimantan Province, Bapak H. Aspar Aswin, welcomed the participants and read remarks about the significance of the meeting. Bapak Professor Mahmud Akil, S.H., Rector of Universitas Tanjungpura, also welcomed the delegates. Professor George N. Appell, President of the Council, responded on behalf of the Council's Fellows and Members.

The Local Coordinating Committee was chaired by Professor Syamsuni Arman, Ph.D., who worked tirelessly both prior to the conference and during throughout the week to ensure the success of the meetings. No task was too daunting nor was any job too humble for Professor Syamsuni, to whom much of the credit must be given for a memorable conference.

Three hundred and fifty people attended the Conference which included 150 papers, half in Bahasa Indonesia and English. Travel costs and registration fees of many delegates from Kalimantan were provided by grants from the Provincial Government of Kalimantan Barat and the Ford Foundation, to whom the Officers and Directors express their gratitude.

A number of these papers will be published either as Proceedings or as papers in this volume and future volumes of the *Borneo Research Bulletin*.

BOARD OF DIRECTORS MEETING

The Board of Directors met on the evening of July 10th, to discuss the program and future meetings, and took the following actions:

1. Unanimously agreed to invite Professor Syamsuni Arman and Dato Seri Laila Jasa Awang Haji Abu Bakar bin Haji Apong, Vice-Chancellor, Universiti Brunei Darussalam, YBhg. Datuk Haji Mohd. Taha Ariffin, Timbalan Setiausaha Kerajaan, Pejabat Setiausaha Kerajaan, to become Directors.
2. Unanimously agreed to continue publication of the *Borneo Research Bulletin*, with costs to be shared between the five units of Brunei, Kalimantan, Sabah, Sarawak, and Europe-North America.
3. Unanimously agreed to hold the Fourth Biennial International Conference in Brunei in 1996.

WELCOMING ADDRESS FROM
DR. GEORGE N. APPELL,
PRESIDENT OF THE BORNEO RESEARCH COUNCIL, INC.

- Yang terhormat Bapak Gubernur Kalimantan Barat dan Anggota Muspida Kalimantan Barat
- Yang terhormat Bapak Rektor, Universiti Tanjungpura
- Yang terhormat Bapak Dr. Syamsuni Arman Ketua Komite Ko-ordinasi setempat
- Yang terhormat para direktor Borneo Research Council
- Yang terhormat Dr. Bernard Sellato, Ketua Kantor, Borneo Research Council, Indonesia
- Yang terhormat semua anggota Borneo Research Council
- Yang terhormat para tamu

Ini adalah satu kehormatan besar untuk Borneo Research Council atas undangan yang terhormat Bapak Gubernur Kalimantan Barat untuk mengadakan Konferensi pertama di Kalimantan. Konferensi ini di adakan dengan harapan Borneo Research Council dan khususnya oleh Professor Vinson Sutlive, Direktur Executive kami yang mengawali concept dan mengorganisasi konferensi-konferensi Borneo ini.

Konferensi ini telah mengundang para ilmuwan tidak hanya dari Borneo saja, tapi juga dari mana-mana di dunia--Europa, America Utara, Australia, Asia, dan Asia Tenggara. Sebagai wakil Borneo Research Council ini, saya ingin menyatakan pada tuan rumah bahwa kami senang sekali berada disini. Kami gembira mendapat kesempatan untuk bertukar pikiran dan pengetahuan dalam lima hari ini dengan para ilmuwan dan mereka yang tertarik mengenai Borneologi ini dari mana-mana di dunia.

Ini adalah kunjungan pertama saya di Kalimantan Barat. Tapi bukan kunjungan pertama saya di Kalimantan. Pada tahun seribu, sembilan ratus, delapan puluh (1980) sampai delapan puluh satu (1981) saya mengadakan riset di suku Bulusu' di Kalimantan Timur. Sudah hampir empat belas tahun sajak saya berbicara dalam bahasa Indonesia. Yang terakhir kali saya yaking kedengaran kurang enak di telinga anda. Saya harapan anda memaafkan saya,

sekarang saya akan pindah berbicara dengan bahasa Inggris, yang tentu saja lebih lancar untuk saya.

As you know, the Borneo Research Council was founded in 1968 to forward research in the social, biological, and medical sciences in Borneo. It has been our experience that the usual academic division of disciplines found in universities hinders the understanding and the development of knowledge in Borneo. Knowledge of Borneo can be most profitably generated through the interaction of all the various disciplines. Thus, one of the important goals of the Council is to serve as a link between disciplines and also bring those working in disparate regions together to exchange ideas and knowledge. It is particularly appropriate we meet here in Kalimantan Barat as the vision of the members of government and the university community has resulted in Kalimantan Barat being one of the most active regions of research in Borneo.

But of course research findings are of themselves not yet knowledge. They only become knowledge when they are shared with and accepted by the group of scholars involved in related research. This is one of the functions of the Borneo Research Council: to encourage those working in these fields to share and test their findings.

The importance of the exchange of knowledge and interaction between members of different scholarly communities is represented in two instances. In the late 1940s and early 1950s Professor Derek Freeman started his ground-breaking study of Iban swidden agriculture and society and Professor William Geddes made his critically important study of Bidayuh Land Dayak society. But they were uninformed of the work done by the Dutch scholars on adat law in Kalimantan during the first decades of the 20th century. As a result, their work failed to ask those critical questions on village organization and rights to land. The Dutch scholars had discovered early in this century the fact that villages held residual rights to land and only village members could cultivate their crops in the village area without prior permission. And this finding has, since the work of Freeman and Geddes, been substantiated by research from many scholars so that we can now make the generalization that this is one of the most fundamental features of all village organization in all of Borneo.

Thus, today, in contrast to these earlier researchers, research involves an international community. For example, it has taken the effort of Canadian, American, Sarawakian, French, Indonesian and Japanese scholars to sort out the nature of traditional land tenure among the Kayan. And this discussion continues, as you will see from the program.

I think two important points might be drawn from this. First, this should disabuse anyone of the notion that research is simple or easy. I still find after 33 years of research on Rungus society errors of omission and commission. On the other hand, it points out the importance for the generation of knowledge of the participation by local individuals who are members of the cultural group in question, such as Mering Ngo, a Kayan himself. He has made an important contribution and this has arisen by his willingness to engage in discussions with professional researchers about the uses and validity of his conclusions.

Thus, the Council also wants to encourage and help those who take the time from their other work, and using their own funds, strive to forward knowledge, whether in collecting local oral histories, establishing cultural centers, studying the distribution of plants, studying the genetics of populations, analyzing the distribution of disease and disability, observing changes in local ecosystems, mapping important cultural and natural sites. And so on. For there is much to do and too few to do it. Thus, one of our important goals is to encourage such research endeavors by all and help them progress, at times indicating what questions need to be phrased and how to phrase them.

Another one of the key reasons that the Council was formed was to try and develop a more systematic approach to scholarly questions in Borneo. For example, certain languages and cultural heritages are rapidly dying out. And it is critically important to mount an effort to record these. Up until recently, what knowledge we have had has been accidental knowledge, the results of accidents of history. And this has led to the greater development of knowledge in some regions more than in others.

I cannot overemphasize the importance of recording disappearing languages and cultural heritages, each with their own unique collection of knowledge and wisdom. Such work not only preserves the cultural wisdom of the peoples of the earth, but it also facilitates the process of transformation into the modern state.

I have estimated that each month of the year a language and its cultural heritage, somewhere in the world, disappears without it being recorded as the world system of commerce reaches into the furthestmost corners of the world.

Consequently, I believe we have to organize a more systematic approach to research in Borneo, listing what critical research needs to be done before it is too late. I hope that our discussion here this week will lead to such an approach. And I would welcome any ideas that anyone might have to forward this proposal.

CONCLUSION

In conclusion, again, many thanks for your kindness, your welcome, your interest and your support of our attempts to encourage the growth of knowledge.

Sebagai penutup, terima kasih kebanyak-banyaknya atas keramahan dan dukunan atas penyelenggaraan Konferensi Borneo disini. Saya ingin menyatakan terima kasih kami pada semua yang telah membantu atah terselenggaranya pertemuan ini. Kususnya kepada Dr. Bernard Sellato, Kepala Kantor Borneologi cabang Indonesia; Dr. Syamsuni Arman, Ketua Komite Ko-ordinasi setempat; dan Dr. Herculanus Aten, Sekretaris Komite Ko-ordinasi setempat. Merekalah yang banyak membantu atas successnya pertemuan ini.

AN OVERVIEW OF RESEARCH IN BORNEO

Vinson H. Sutlive, Jr.
Executive Director
Borneo Research Council, Inc.

Please let me add my welcome to those of our hosts and Professor Appell, and to thank you for coming to participate in this conference. I want to express my special appreciation to the Panitia Pelaksana, and to everyone who has worked to make this conference the success it certainly will be. In particular, I want to recognize the invaluable and innumerable contributions of Bernard Sellato.

To paraphrase Dickens, "This is the best of times; this is the worst of times."

It is the best of times because it is our moment in time.

- It is the best of times because never before have human beings been so aware of themselves in their world, and aware of the diversity of life forms;
- It is the best of times because the technology exists to describe and record the ways of life of all 5000 autonymic societies in the world.
- It is the worst of times because the source of the same technology threatens the ways of life of all societies in the world.

- Ironically, our self-awareness is too often accompanied by intolerance and insecurity, as resist and reject our diversity.

What George Appell wrote in 'The Era of Salvage Ethnography' specifically about Sabah, may be extended to much of the developing world.

A tragedy of the greatest proportions is occurring before our eyes . . . The cultural heritages of all of Sabah's ethnic groups are disappearing without any record.

This tragedy of which I write is one not only of the loss of knowledge about a people and its way of life, but also of the loss of knowledge that these people have themselves accumulated over thousands of years of living in their environment. It is, furthermore, the loss of irreplaceable works of art. Each culture is like a painted mural, depicting the experiences of a people, their beliefs, their personhood, their significance. Each culture is like a saga, the oral history of a way of life. Each culture is the child of a people, a child of their imagination and thought, born of necessity and of an irresistible creative urge, a poem, both acted and uttered, cast forth on the world presenting its own vision of beauty. It is the accumulated hopes and dreams of myriad ancestors. And we are letting these children of ancient and dying cultures expire without recording their importance, their beauty, the worth of their lives. (BRB 23(1):139-140).

Borneo is an island, but it is not insular. It is experiencing the effects of these and other changes far too numerous to mention. Although we do not feel all of these new forces, we have experienced some and doubtlessly, shall experience all within our lifetime.

Research in Borneo has provided us with information of the rich biome in which we live and of the rich cultures created by members of the island's 200 societies. Interest in the rich biodiversity is apparent in the number papers to be offered this week. Kalimantan.

The prodigality of life manifested in the biodiversity has inspired the wealth of studies of Borneo's flora. A dozen or more illustrated books present the plants and flowers of Borneo in their splendor. One of the loveliest is just out, *Belalong: A Tropical Rainforest*, co-authored by the Earl of Cranbrook and David Edwards. The Department of Agriculture of the State Government of Sarawak has published a beautiful volume on the fruits of Sarawak, together with a photography of each and a description of the uses of many.

The *Flora Malesiana Bulletin* continues to be a major source of information about researchers and current projects.

I shall not try to summarize it here, but refer you to several articles and books if you are interested in reviewing the overviews. Full citations of all the works will appear in the published version of this paper to appear in Volume 26 of the *Bulletin*. George Appell wrote an article on social science research in Borneo, which appeared in *Studies in Third World Societies*, Volume Two. The article was republished in a collection Professor Appell edited for the Center for Southeast Asian Studies, Northern Illinois University, at DeKalb, Illinois. Lucas Chin, former Director of the Sarawak Museum, the late David McCredie, former Director of the Sabah Museum, and I co-authored a summary of research from the East Malaysian states of Sarawak and Sabah in *Archaeology and Anthropology in Southeast Asia*, edited by Professor Wilhelm G. Solheim, II. The latter provides a fairly comprehensive overview of the sub-disciplines of anthropology to 1987. Ronald Provencher has updated information on research in Malaysia, and Gerald Krausse, on Brunei, in a volume to appear this month, *Recent Research in Malaysia and Brunei*, in the series, *Studies in Third World Societies*, Volume 54. This volume is edited by John Lent and Kent Mulliner.

Insofar as I am aware, however, there has been no attempt to provide a summary for research in Kalimantan similar to those mentioned above. The apparent disparity in size and complexity, and the amount of information available within and without Kalimantan, is reminiscent of the Pareto Principle, which states that 80 percent of the work is worth 20 percent of the activity, and 20 percent of the work is worth 80 of the effort.

Bernard Sellato has written an outstanding volume, *Hornbill and Dragon*, and Lucas Chin and Valerie Mashman have edited a splendid set of papers in *Sarawak Cultural Legacy*, published the the Atelier Sarawak. Victor T. King has provided a schematic of the peoples of Borneo in his recent book. Koentjaraningrat has published a bibliography of studies on *adat* in Kalimantan.

In my opinion, the best introduction to the island, its environments and people, is the new publication by Mark Cleary and Peter Eaton's *Borneo: Change and Development*.

If your interests are in Borneo, I urge you to subscribe to publications of the museums, historical societies, and other research organizations, and if you are not a Fellow of the Council, to join us, about which more later.

Despite extensive research and several thousand publications on the island, however, Christine Helliwell is quite correct when she writes that

Borneo is the third largest of the world's islands, yet in terms of the attention paid it by anthropologists it could well be one of the smallest. (George) Appell notes, for instance, that since World War Two New Guinea (with a population smaller than that of Borneo) has been the location of around sixty field projects a year, while Borneo has averaged about one and one-half a year (1976a:1). Furthermore, since the publication of Leach's *Social Science Research in Sarawak* (1950), and of the three pioneering ethnographic studies which it spawned (Freeman, Geddes, Morris), most anthropological work in Borneo has been concentrated in the former British colonies of Sarawak and Sabah, which now comprises the two provinces of Eastern Malaysia. Kalimantan, or Indonesian Borneo . . . has been almost completely neglected, in spite of its vast size and obvious ethnographic complexity . . . As a result anthropologists still know little about the peoples to be found there (Helliwell 1990).

Helliwell's dissertation provides one ethnographic account, as does Jay Bernstein's study of the Taman. Anne Schiller's study of Ngaju and culture change will be published next year by Oxford University Press, and there are other recent and current research projects for Kalimantan.

Overviews are useful, for they provide a summary of the state of knowledge to a particular time in history. In the case of Borneo, however, such summaries must always be incomplete and an overview such as this premature, for there is far more we do not know than we do know. Our research calls to mind the observation of Wilhelm von Humboldt, that science is the substitution of one error for another, one incomplete bit of knowledge for a more incomplete bit.

In the philosophy and practice of science, there are three levels. Level one is the observation and collection of descriptive information about what we see and hear. Level two is the analysis of such information. And level three is the generation of hypotheses and their testing, to the end that we are able to offer some general statements about the phenomena we are studying.

At present, in the state of Borneo research, our task is 'level-one description.' Before it is possible for us to proceed to analysis and the generation of hypotheses and formulation of theories, we must have reliable data bases.

From a review of the preliminary program, it seems that there are three major foci of interest among participants: Biodiversity, Peoples and Cultures, and

Language and Speech. Our knowledge in each is incomplete. We do not have an inventory of the plants and animals of Borneo, though there are encouraging projects underway that will add to what we do know. We do not have an inventory of the autonymic societies of the island. And there are vast gaps in our study of the languages of Borneo.

Whether in a cataloging of the ethnobotany of the peoples, or the lexemes in their vocabularies, we must observe, record, and describe before we ever can move on to analysis.

I will leave the topic of biodiversity to those of you who are specializing in this field of research. Let me briefly address the important subject of research on ethnicity and language.

Twenty members of our faculty have just completed an 18-month study of the nation state and its future at our university. The inspiration for our study was the late Emery Reves' *Anatomy for Peace*, written in 1945, in which Reves concluded that the nation-state was the political problem which had led to two world wars in this century. Reves was a friend to and advisor of Sir Winston Churchill and, throughout his life, was close to the halls of power. We took as our topic of study, therefore, the ambitious theme, 'Beyond the Nation State,' and brought to campus the leading jurists, politicians, and scholars from Asia, Africa, Europe, Latin America and North America. The climax of the study was a three-day conference last October, with outstanding speakers and panelists. The conclusion that I, as one participant, drew is that as difficult as it may be for us to live within the nation-state, it is impossible for us to live without it.

The nation-state appeared in the 18th century as a processual climax, transforming state forms of organization as they had existed over the previous three millennia. During the 'Age of Discovery', Europeans met people of whose existence they had been unaware. From societies in Asia, Africa, and Latin America, they appropriated cultigens that enriched European diets, inventions that strengthened European technology, and values of polity that challenged European political systems and served to rationalize the 'Age of Revolutions' in which the American colonies and then France replaced monarchy with republic. It was these events that led to the political configuration of our world today.

But more basic than 'nationhood' and national identity is ethnicity, a sense of self-awareness by which we know who we are and by which we relate ourselves to others. The liberal expectancy of the early 20th century was that in situations of multi-ethnicity and cultural pluralism, ethnic boundaries become blurred and

new identities emerge. This expectancy is only partially true, and was popularized in the phrase 'the melting pot'.

(The term "melting pot" as an image of the American immigrant experience was coined by the British playwright, Israel Zangwill. His play of that title depicts the triumph of true love in the New World over Christian-Jewish hostilities . . . [Moynihan 1993:32])

The notion of 'melting pot', just as the Marxist prediction of a world movement overriding ethnic and national boundaries, has proven untrue. As Edward O. Wilson has written about the tragedy of eastern Europe, there endures

"a coiled and ready ethnicity (that) is to be expected from a consideration of biological evolutionary theory." Once "the overwhelming suppressive force of supranational ideology was lifted" ethnicity would strike. (*Ibid.*, p. xiii)

If you doubt this possibility, simply reflect on the events of the past 30 months in the former Yugoslavia. In March, we hosted Pavao Rudan, Senior Vice President of the International Union of Anthropological and Ethnological Sciences. Professor Rudan holds an M.D. and Ph.D. in Anthropology, and made one of the most brilliant presentations I have ever seen and heard. Working with physical and cultural anthropologists, and linguists, he reconstructed the social history of Croatia, an area that traces its origins to ancient Rome. Against the story of the confluence of Croats and Serbs, he described the almost idyllic setting in Yugoslavia. And then, things came apart. Old hatreds flared, were fanned into flame, and the confluence and tragedy of ethnic cleansing was on.

We may protest that we would never be party to such violence. But, as the Roman slave and playwright, Terence, reminds us, "there is no deed done by man to which I cannot relate."

Nation-states are artifices, constructs, "imagined communities" in which we agree to the centralization of authority and the assumption of many responsibilities by bureaucracies. But nation-states are composed of ethnic groups, and ethnicity, from the Greek *ethnikos*, "the other", is meaningful, and important. Ethnic conflicts, wherever we observe them, are based not on promise of future rewards but on the long-term memories of past experiences, and especially, of neglect or disregard. And our sense of identity is psychologically and sociologically embedded in our ethnic identity.

Would that we could move beyond our ethnicity to a fully liberated humanism but, as Daniel Patrick Moynihan writes eloquently and convincingly in *Pandaemonium: Ethnicity in International Politics*, our differences are ever with us, and it is in these differences that we affirm ourselves, our histories, our personalities. To deny the social and cultural realities of these differences is to stifle creativity.

A nation is never so united as it is when it recognizes its ethnic diversity. A nation is never so strong as it is when it protects the rights of all its citizens and constituents.

The second field I want to discuss briefly is language, culture, and logic. Lexicons now exist for several of the languages of Borneo, but the usefulness of these is as yet unrealized. In a review of entries from the first dictionary and in preparation for the encyclopedia project, I became aware that there are clusters of terms which group themselves--actually, the researcher groups them--into categories which reveal a certain logic. Magoroh Maruyama doubtlessly is correct when he writes that there are as many epistemologies as there are societies.

One of the fascinating questions we have considered in the editing and publication of the second volume in the Council's Monograph Series is, Do shamans think differently? For this reason, we vacillated in the selection of the title to be given the book, between *The Seen and The Unseen* and *A Seamless World*. The image that comes to mind as we consider the social philosophy of many groups is that of a plant branching and dividing, only to re-unite and rejoin. There are categories of thought and topics, but these are not impenetrable. They exist to be conjoined in new combinations.

One of the concerns many of us share about research in Borneo is that there is an apparent dearth of ethnography. This is not to minimize in any way the importance of research that is topically focused or issue-specific. Rather, it is to make a plea for a renewal of interest in and commitment to an holistic, long-term observation of human beings in real-life situations.

Let me describe briefly what I--and others who are familiar with the work--consider models for emulation. One is a Government organization, the other, a non-government organization. In 1974, following his retirement from the position of Federal Minister, the late Tun Jugah convinced the State Government to create the Majlis Adat Istiadat. From its establishment to his death, the late Tun worked with his staff to collect and coordinate information about the complex *adat* of the people of Sarawak. Contrary to the living spirit of *adat*, this information now has been codified and reviewed by the legal authority of the State. Beyond collection

of different patterns of conflict resolution, the Majlis also has collected a large number of tapes, altogether over 500 hours, of all types of ritual performances.

The Tun Jugah Foundation was established in 1985 'to preserve and perpetuate the growth of Iban oral literature and to encourage its appreciation by our modern society.' This mission has been expanded and, in the Tun Jugah Centre, to be constructed over the next two years, the Foundation will focus the energies of its staff on the collection and conservation of all forms of Iban culture. Publication of *A Handy Reference Dictionary of Iban and English* is the production of the first reference tool, and will be followed at the end of this year with a four-volume *Encyclopedia of Iban Studies*, and in 1997 with *A Comprehensive Dictionary of Iban and English*.

The Foundation currently employs four staff members on a full-time basis, and several more on an ad hoc or adjunct basis. These very capable oversee the expanding activities of the Foundation, from contacting bards and shaman to setting up "jam sessions" or recording situations for taping chants, epics, and all forms of oral literature. Two members of the staff are transcribing the hundreds of hours of taped materials, with the publication of the chants with interlinear translation and exegesis, similar to the format of the Bureau of American Ethnology series. Together with a comprehensive lexicon, these publications will make available the wisdom of the current and past generations for future students.

What the Majlis and the Foundation have accomplished is possible to each and to all. Admittedly, not all will enjoy the same resources or leadership, but for data collection, no one is excluded nor exempt. This is a responsibility each of us shares.

I want to take time to review briefly the history of the Borneo Research Council, our activities, and to speculate on the Council's future. Some of what I have to say will be familiar to those of you who have attended the previous conferences, so I ask your indulgence.

1. The Borneo Research Council was founded in 1968 to promote scientific research in Borneo; to serve as a forum for sharing information about current and continuing research; to identify and draw attention to urgent research problems; and to help facilitate research by reporting on current conditions which make research possible or impede it.

As I reviewed the statement of purpose for the Council, published in each issue of the *Bulletin*, I became aware that we need to rethink our purpose. Please

look over that statement, and suggest both substantive and stylistic changes to it. Is the BRC still a useful organization? Or, has the Council outlived its time? Should we undertake a restructuring of the Council and, if so, how should we rebuild it?

There are several of us who have invested time, money, and energy in the Council, but I don't think we have a great deal of ego invested in its work. Therefore, it is time for us to consider the mission and future of the Council, and its future is very much up to you.

2. The Council is comprised of about 1100 individuals and institutions in three dozen countries on four continents. Our common interest is Borneo, its peoples and their cultures, and the worlds in which they live.
3. The most significant accomplishment of the Council in its 26 years of existence has been to get people together who share common research interests. Some of the members of the Council, by virtue of their membership, have served as consultants to both government and non-government organizations. It is to this end that we shall produce the Directory and ask that if you have not completed a form with basic information for inclusion in the Directory and would like to be included, please obtain a copy and return it to one of us before the end of the conference. If you have either a fax or email number or, better, both, please include those.
4. We distinguish two categories of individuals: Fellows, who are persons having done research in Borneo, and Members, who are interested in Borneo but have not conducted research here. The creation of the two categories is to recognize the contributions of Fellows and, to give Fellows the privilege of paying a higher annual fee.
5. In the United States of America, we are a legal body, incorporated in the Commonwealth of Virginia. We enjoy tax-exempt status granted to us by the Department of the Treasury of the United States Government through the Internal Revenue Service. Incorporation protects the rights and responsibilities of Fellows and Members, of Directors and Officers.
6. The Council is a non-profit organization or, what may accurately be described as a 'hand-to-mouth' organization. Some of you will recall our efforts to establish the BRC Endowment Fund. In fact, we did establish the Endowment with gifts from UNESCO and several foundations, and from the Officers. Our efforts over the past four years have been notably unsuccessful in increasing the Endowment and, last year, the Officers concluded that we should liquidate the Endowment for the use of our publication program. We have done this

over the past twelve months, and our publication series are on display--and on sale.

Let me be quite forthright, and state that over the past 20 years, Officers and Board members have contributed over half-a-million ringgit (rupiah) in cash gifts and subsidies to the maintenance and activities of the Council. For various reasons, we cannot continue to do this, and we want to stress--and I choose this word rather than the less threatening 'emphasize'--that the future of the Council will depend upon gifts and contributions of individuals and organizations.

7. With an increase and diversification of activities, the organization of the Council has become more complex. In addition to the initial task of producing the *Borneo Research Bulletin*, we now have launched the Monograph Series, are publishing selected papers in our Proceedings Series, are scheduling and organizing these biennial conferences, and are undertaking an annual fund campaign. Several Fellows have volunteered to share in the work, e.g., editing 'Research Notes' and initial word-processing. If we are to continue all of these activities, we must have more volunteers and a greater distribution of the workload.
8. The Council is the only organization of its kind which attempts to treat all parts of Borneo in its coverage, and to relate to researchers in all parts of the island. State and Provincial museums have missions set for them by their governments. They are responsible to ministries and departments, to present programs and to arrange exhibitions, according to the interests of the government.

ACTIVITIES

1. We have annual meetings, usually held as part of the American Anthropological Association. And, beginning four years ago in Kuching, we have begun a series of biennial meetings to be held in the principal centers of the island.
2. We publish the *Borneo Research Bulletin*, an annual publication, in which we attempt to provide information about current and recent research. We urge you to consider submitting information about your research plans and activities. Some of our readers find information about each other the most helpful feature in the *Bulletin*.

We still are surprised at the number of scholars who have worked or are working in Borneo who do not know of the existence of the Council. Within the past year, several have written to introduce themselves and to describe their work. If you know of anyone who has done research in any part of the island, or is currently working here, please let us know names and addresses so we can contact them.

3. We have inaugurated the BRC Monograph Series with two publications: *Female and Male in Borneo*, and *The Seen and The Unseen*. We anticipate publication of a major work on land tenure systems within the next year.
4. We have created and awarded the Borneo Research Council Medal, the first award being to Datuk Amar Leonard Linggi Jugah. During this week, we shall announce additional awards.
5. We serve as consultants to governments and to non-government organizations. This is one of the valuable features of the Directory we shall publish later this year.

I want to conclude where I began, with a paraphrase of Dickens that this is the best of times, and the worst of times. And to relate my observations to four books I have read or reread recently: Mochtar Lubis' *The Indonesian Dilemma*, Prime Minister Mahathir's *The Malay Dilemma*, Gunnar Myrdal's *The American Dilemma*, and Paul Kennedy's *Preparing for the 21st Century*. All too often, the immediacy of our situation overwhelms us, and prevents our seeing the wider picture. Let me suggest that each of the so-called "dilemmas" above is only part of the *Human dilemma*, who we are and what we shall do. One of the best analyses remains the late philosopher Reinhold Niebuhr's *The Nature and Destiny of Man* (and woman, too). Niebuhr writes in this two-volume work that for each person, there is a dilemma because we are torn between a will to power, and a will to share. There is no permanent resolution of the conflict. Rather, so long as we live and think and act, we must choose. To seek for ourselves, or to share our lives. The choice is ours.

This can be the worst of times--or, it can be the best of times.

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Professor Dr. Syamsuni Arman, Chairman of the Local Organizing Committee, welcoming participants to the Third International Biennial Conference.



Drs. Naimah Talib and Pushpa Thambipillai listening to the opening speech by the Deputy Governor of West Kalimantan.



The Deputy Governor presenting a gift to Professor George Appell.



One of 148 papers presented during the four-day conference.



Deputy Governor (left) and Professor Arman Leaving the Opening Session.



A break, as a participant and Professor Nik Safiah Karim talk about a session's papers.



THE BORNEO RESEARCH COUNCIL

THIRD BIENNIAL INTERNATIONAL CONFERENCE

Pontianak, West Kalimantan, Indonesia July 10 - 14, 1994

Professor Appell, Drs. Bernard Sellato (center) and Clifford Sather (right)



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'Consider this', a delegate makes a point to Reed Wadley (second left) and Dr. Richard Allen Drake (second right).



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Professor Dr. Soepomo Poedjosodarmo leading discussion in a session on linguistics



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Dr. Gary Shapiro (left) and Tim Jessup discussing research in Kalimantan.



Two long-time friends, Professor Appell and Masri Singarimbun.



The moving forces behind the Conference:
Professor Arman and Appell, and Mrs. Arman who was responsible for meals.



In the Governor's mansion, His Excellency the Governor presenting a gift to Professor Appell.



A night to remember--one of several local dance tropes.

HIGHLIGHTS OF THE CONFERENCE
CLOSING REMARKS

G. N. Appell, Ph.D.
President, Borneo Research Council¹

- Yang terhormat Bapak Gubernur Kalimantan Barat dan Anggota Muspida Kalimantan Barat
- Yang terhormat Bapak Rektor, Universiti Tanjungpura
- Yang terhormat Bapak Dr. Syamsuni Arman Ketua Komite Koordinasi setempat
- Yang terhormat para direktor Borneo Research Council
- Yang terhormat Dr. Bernard Sellato, Ketua Kantor, Borneo Research Council, Indonesia
- Yang terhormat semua anggota Borneo Research Council
- Yang terhormat para tamu

This Third Biennial Conference of the Borneo Research Council has been extraordinarily productive and has had some unusually significant aspects that I would like to mention.

First, there has been the warm welcome and hospitality of the Government of Kalimantan Barat and the Universiti Tanjungpura. We want to thank Bapak Gubernur and Bapak Rektor for their kindness.

Second, this conference has been truly unique. It has provided the opportunity to meet scholars from every region of Borneo and has produced many stimulating discussions and ideas for further research.

Third, it is impossible for me to single out any particular presentation as they have all been excellent. But it is quite clear that continuing loss of cultural and biological diversity threaten the orderly progress of development and will add millions of dollars to the cost of progress.

The next item of significance that must be mentioned has been the food. It was *eneck sekali!* Our thanks to all those who worked so hard to make our stay and deliberation run well.

Last but not least, this conference in Pontianak has demonstrated to all of us, we no longer have to fear the hanta Pontianak.

Again, our many thanks to the Gubernur, to the Rektor, to Dr. Syamsuni, Chairman of the Organizing Committee, and to members of the local committee for a magnificent and extraordinarily productive conference.

NOTES

1. Delivered at the Gubernuran, Pontianak.

B O R N E O N E W S

REGIONAL NEWS

Dr. Rita Armstrong, ARC Postdoctoral Research Fellow, and Dr. Jennifer Alexander, ARC Research Fellow, have received an Australian Research Council Grant to conduct research on *The Formation of Identity: A Comparative Account of Relations between Indigenous Peoples and the State in Central Borneo*. The project will result in several publications about the formation of identity among indigenous societies of Central Borneo. Anthropological and historical methods will be used to compare the self-conception of migratory and sedentary longhouse societies, and also to compare the effect of different state regimes (Malaysia and Indonesia) on the identity of these marginalized groups. The project is significant because it challenges conventional views about the traditional nature of small-scale, isolated societies and makes a valuable contribution to theoretical debates about the nature of marginality.

Studies in Bornean *Cyrtandra* are continued as part of Malesian botanical research, with the collaboration of Dr. M.H. BOKHARI who studies the foliar sclereids.

BRUNEI NEWS

Ms. S. ATKINS, Ms. J. COWLEY, and Mr. M.J.S. SANDS (Kew) visited Brunei between July 5 and August 2, 1993. They were joined until August 9 by Dr. K.M. WONG (Sandakan) and Dr. E.P. TAY (Singapore), and on July 10 by Dr. B.P.M. HYLAND (QRS). They collected on Bukit Patoi in the Temburong Valley, and upstream to Sungai Tulan in the Apan area until the 18th. The Kew team accompanied by Mr. S. DAVIES (Universiti Brunei Darussalam) were then based at Ulu Ingei and made trips up the Belait River from Sungai Mau, collecting near Kampong Sukang, at Batu Malintang, and the Hot Springs until July 25. On the 26th, a forest reserve area near Sungai Mutip was visited. The second waterfall on the Rampayoh River was reached on the 30th. On the 31st the first hill section of the trail to the swamp forest beyond the Taraja Longhouse proved profitable.

Sands was able to pursue his special interest in *Begonia* at the same time making general collections. He could confirm several distinctions between *Begonia* species in the Temburong catchment and observed at least one suspected hybrid, a rare occurrence in the wild. On August 11 he visited the Kinabalu National Park, between the 13th and 14th he camped at 975 m at Bukit Kallang at the southern end of the Crocker Range, collecting with Mr. A. GUNSALEM and H. LOHOK of the Sabah Parks. On the return trip to Kota Kinabalu, a few *Begonias* were found along the Sinsuran Road.

Atkins gained first-hand knowledge of seeing living *Lauraceae* and *Verbenaceae*. Hyland concentrated on *Eusideroxylon* and *Protoxylon* (*Lauraceae*).

Cowley was very lucky with so many gingers in flower, making 61 collections of 12 genera, among which a possibly undescribed *Amomum* in the Temburong Valley.

In total 629 numbers were collected, one of the most interesting one may represent an undescribed genus in the *Commelinaceae*, unusual for having moss-like roots which grow upwards into the leaf axils.

Mr. A. DAVIES started on January 1, 1994, at Kew. His main priority is to name specimens, edit the taxon list, and bring 'neglected' groups up to the standard for worked-up groups. Following an introductory period with Mr. L.L. FORMAN he began on *Ficus* and *Myrtaceae*, both of which were completed. He then collaborated with Mr. P. BYGRAVE on the *Melastomataceae* and embarked on the *Rubiaceae*. Some statistics: c. 33 percent of all Bornean *Syzygium* species occur in Brunei; there are c. 70 species of *Ficus*.

Shell Brunei is interested in using the Data Base to help with environmental impact work. A subset of specimen records (c. 4000 numbers) will be used in conjunction with geology maps, Geographical Information System (GIS), etc. to produce digitized maps. Mr. D.W. KIRKUP (Kew) has a list of software packages designed for this type of project. Overall it seems that Shell Brunei is keen to maintain the image of a 'green' organization with projects to rehabilitate disused inland oil drilling sites, etc.

Dr. M.J.E. COODE, and D. W. KIRKUP (Kew), J. ERI, C. LANOL, T. MALANG, S. MOHIDIN, H. b. H. OTHMAN, and N. SINGONG (Brunei) spent five days in January, 1994, in the field near Sungai Rampayoh. Almost immediately, a fruiting *Elaeocarpus truncatus* was found, the first time so, and the third time ever. A fourth locality of *Orchidantha* (*Lowiaceae*) in Brunei was found. Further material of an undescribed creeping *Commelinaceae*, related to *Amisכותolotype*, was found in flower and fruit. There was also a *Rubiaceae* tree with black ants inhabiting complex chambers throughout the trunk.

In the swamp forest was the first collection of *Combretum sundaicum* for Brunei, a treetop liana with yellow flowers and broadly winged fruits, and a very beautiful *Symplocos* in full flower. On the slopes above, a strange *Diospyros* with very narrow leaves grew leaning over a cliff, and a large tree of *Terminalia* in full flower was collected. It is not often that members of this genus are found in Brunei. In all about 115 numbers were collected.

Dr. J. DRANSFIELD, M.J.E. COODE, D.W. KIRKUP (Kew), I. ABDULLAH, J. ERI, A. KALAT, I.M. SAID, and H. SING (Brunei) made a seven-day trip in January 1994 to Ulu Belalong in the southwest of Temburong. It started unconventionally, with the helicopter setting the party down in the wrong place on a ridge-top only to return later to find that the group had settled in and did not want to move. There was no source of water, but it rained daily. There was a great variety of species in flower and fruit, among which an *Horsfieldia* laden with huge orange fruits, a beautiful *Strychnos* with massed creamy flowers, a first record for Brunei of *Elaeocarpus acrantherus*, and some species of *Begonia*, one with red circular leaves growing close to the ground, possibly a new species and certainly of horticultural potential. About 145 collections were made.

Dr. J. DRANSFIELD, M.J.E. COODE, and D.W. KIRKUP (Kew), J. b. H. ALI, M. INGOL, C. LANOL, T. MALANG, N. NANGKAT, and H. SING (Brunei) went to Selapon for five days in February, 1994. Near the village, a large *Ardisia* and *Tetramerista* were found. These are clearly of great interest to hornbills and perhaps wild mammals as very many chewed remains were seen. There was also a beautiful flowering *Prunus* and, most interestingly, a small rubiaceaceous treelet

with relatively enormous cauliflorous flowers and fruits, not represented at the Brunei Herbarium of the Forestry Department, and not fitting any generic description in recent Bornean *Rubiaceae* literature.

Beside the river, *Elaeocarpus sphaeroblastus* with edible fruit proved a first record for Brunei. A day trip to Labi resulted in a *Terminalia* not noticed before and a new record for Brunei of a spectacular parasite *Trithecanthera xiphostachys* (*Loranthaceae*). In total, some 155 numbers were collected with additional material for DNA analyses of genera as *Hydnocarpus*, *Kibara*, *Magnolia*, *Mesua*, *Symplocos*, and *Tetramerista*.

In connection with Malesian botany, Mr. P. BYGRAVE (Kew) has studied the families *Annonaceae* and *Melastomataceae* for the Brunei Checklist Project.

Dr. K.A. SALIM (Brunei University) studied the holdings of *Saurauiceae* at Kew for six months commencing in July, 1994.

Mr. A. KALAT is staying for a year at Kew working on the Brunei Checklist Project and training in general herbarium management.

KALIMANTAN NEWS

Structure and regeneration dynamics of tropical dipterocarp forest in varying degrees of management is being studied in West Kalimantan, mainly in the Gunung Niut Nature Reserve, by a joint Japanese-Indonesian team. Between 1991 and 1993, the area was visited five times for about three months each. The party consisted of Messrs. M. HOTTA, E. SUZUKI, T. YAMADA (KAG), M. KAJI (TI), T. KOHYAMA, N. NOMA (KYO), F. KOIKE (Shimane University), HAMZAH, T. PARTOMIHARDJO, S. RISWAN, H. SIMBOLON, and Ms. WARDAH (Bogor), M.R. DJUWANSAH, and A. SULE (Puslitbang Geoteknologi, Bogor). One of the themes is the difference between plantation and the natural forest of Tengkwang, which produces illipe nuts (*Shorea macrophylla* and other species). Twenty four plots were made in Dawar, Gunung Niut, Purbuah, Sempatung (Airport), Serimbu, Tau, and Tepo (all around 110°E, 1°N), nine hectares in total. Because the Tenakawang forest is restricted to the riverside, other plots were made on the hills and mountains. Some areas have been used in shifting cultivation and the vegetation changes were studied. About 3700 specimens representing 1300 species were collected mainly from the trees in the plots. Most of these are sterile and are deposited in Bogor and KAG. Plans were made to revisit Serimbu in 1994, and to make a preliminary survey of the Danai Sentarum Nature Reserve.

Ms. E. CAMPBELL-GASIS (Edinburgh, U.K., and Sabah, Malaysia) spent one week in Leiden studying various families in preparation of the "Field Guide to Economic Trees of Central Kalimantan". This project is part of a major one funded by the British Overseas Administration in conjunction with the Ministry of Forestry, Indonesia, and in Britain, the Edinburgh Centre for Tropical Forests.

SABAH NEWS

Mr. G. MARTIN (P) has been guiding the activities of six local collectors on Mount Kinabalu.

The Tree Flora of Sabah and Sarawak Project is progressing well. Revisional work on 54 of the 59 families (involving about 650 species) to be included in the first volume has been started. As of 1994, 29 manuscripts had been submitted, three revisions had been completed, 22 revisions are in progress, and five will start soon. The volume was scheduled for publication at the end of 1994 or early 1995.

A expedition was made to the Bukit Tawai Protection FR, 5°30'N, 117°E between April 4-14, 1994, by the Tree Flora of Sabah and Sarawak Project. 1328 numbers were collected.

Mr. J.B. SUGAU (Sandakan) is revising the family *Pittosporaceae*, Mr. J.T. PEREIRA (Sandakan), the family *Staphyleaceae*, and Mr. L.S.L. CHUA (Kepong), the family *Santalaceae*, for the Tree Flora of Sabah and Sarawak Project

Sytematics, Biogeography, and Ethnobotany of the Flora of Mt. Kinabalu. The American National Science Foundation has awarded a four-year grant to the Michigan State University with Dr. J.H. BEAMAN, now in Sarawak, as Principal Investigator (PI). Dr. Beaman has retired from Michigan State and is working full-time on the botanical inventory of Mt. Kinabalu. On July 1, 1994, he became Director of Biodiversity and Environmental Conservation, University of Malaysia Sarawak, 94300 Kota Samarahan, Sarawak [Fax: 60-82-671-123; Phone: 60-82-671-000]. Collaborators at present at R.S. BEAMAN, University of Florida (for GIS and evolutionary studies), Ms. C. ANDERSON, University of Michigan (enumeration of the flora), Mr. S.M. NOT (F, UKMS), Mr. T.J. BARKAN, University of Texas (evolution of *Dendrochilum*), and Mr. A. THOMAS, University of Florida (GIS).

Taxonomic databases accessible by international networks are being developed for all vascular plants. The specimen database includes more than 20,000

specimens that have been inspected by the PI. Mt. Kinabalu is thought to have the richest flora in the world, which contention is being supported by a database that includes more than 4,500 species, about 10 percent of the Malesian flora! Much of it is threatened with imminent destruction, but only about 30 percent has thus far been documented in enumerations by the PI and collaborators. An enumeration will be made for the remaining 70 percent, citing types, synonyms, characterizing habit, habitat, elevational distribution, and listing specimens seen with an index.

A major reason for the species-richness appears due to special edaphic conditions (ultramafic substrates) and frequently occurring droughts that result in the selection of well-adapted genotypes, and small populations with limited gene flow because of the precipitous geography. Three genera (*Dendrochilum*, *Orchidaceae*, *Elatosema*, *Urticaceae*, and *Polyosma*, *Saxifragaceae*) will be analyzed by cladistic and GIS techniques in an effort to trace evolutionary lineages in groups of closely related species that may have undergone recent speciation.

GIS will be used to produce a map that documents and names collecting locations, landforms, and settlements. Satellite imagery and global positioning system (GPS) data will be used to interpret the occurrence of paths, roads, ultramafic substrates, and vegetation types. Surface modeling techniques will be used to predict where taxa will occur in unexplored area, based on topographic and edaphic characteristics of where they are known to occur. Biogeographic relationships between ultramafic areas and similar outcrops elsewhere in Borneo will be analyzed in the context of phylogenetic relationships among ultramafic and non-ultramafic taxa. The GIS will facilitate integrating taxonomy, ethnobotanical and phytochemical databases into Kinabalu Park activities and monitoring aspects such as ecotourism development and (il)legal harvesting activities.

Applications have been made to the John D. and Catherine T. MacArthur Foundation for a grant for research on the ethnobotany previously supported by WWF, UNESCO, and AID. The Kinabalu Ethnobotany Project (PEK) is under the direction of Ms. L. MAJUAKIM. The survey is being made to determine how the local Dusun people classify and use the flora. They are making extensive collections of useful plants in their communities and enter ethnobotanical information in an electronic database housed in the Kinabalu Park HQ. This aids researchers and personnel in identifying culturally significant resources and in the detection of those resources that are most vulnerable to over-harvesting and habitat destruction. The survey strengthens the link between Park and local communities, and enriches programs for the 200,000 (!) annual visitors.

The project will serve as a basis for Ph.D. dissertations by two Malaysian graduate students, one botanical and one concerning the floristics and ecology of a presently unexplored region, the other applying GIS approaches to the small mammal fauna of the mountain. Two American students will prepare Ph.D. theses concerning biogeography, evolution, and speciation in the flora. A third American will base his Master's thesis in geography on the use of a Landsat image for determining occurrence of the ultramafic substrates.

Ms. R. GO (Kepong) has been appointed as Junior Botanist by the Tree Flora of Sabah and Sarawak Project.

Mr. K.M. KOCHUMMEN (Kepong) was Liaison Officer for the Tree Flora of Sabah and Sarawak Project at Kew between May 10 and July 9, 1993, and has worked on completion of manuscripts of *Burseraceae* and *Celastraceae* for the Project.

Dr. A.M. LATIFF (UKMB) spent two months at Kew and Leiden from May 1, 1994, as Liaison Officer for the Tree Flora of Sabah and Sarawak Project.

Ms. J.T. PEREIRA (Sandakan) has been appointed as Junior Botanist by the Tree Flora of Sabah and Sarawak Project.

Dr. E. SOEPADMO (Forest Research Institute Malaysia), coordinator of the Tree Flora of Sabah and Sarawak Project, can be reached at the following: Phone: 60-3-634-2633, ext. 27; Telex: FRIM-MA-27007; FAX: 60-3-636-7753; E-mail: salleh@frim.my.

SARAWAK NEWS

DR. A. DEARDEN, Cairns, Australia, in 1990 collected a sterile plant of the family *Araceae* near Bintulu, which could not be identified to genus. In February 1994, Dr. A. HAY (New South Wales) and a few weeks later Mr. J. BOGNER (M) and Mr. P. BOYCE (Kew) found populations in flower, which turned out to belong to an undescribed *Nephtytis*, the first Asian record of a tropical West African genus. In the next issue (Volume 12:1) of the *Flora Malesiana Bulletin* a more detailed report will be given, as well as a key to Sarawak *Araceae* genera.

The Sarawak Forestry Department organized a number of short collecting trips to Sri Aman and Bako National Park during the first half of 1993. From June 25th to July 5th, an expedition was made to the Lanjak Entimau Wildlife Sanctuary. This was the first expedition to Sabah and Sarawak to be undertaken under the

Tree Flora of Sabah and Sarawak Project. Ten botanists were involved directly, two from Sandakan, two from Sarawak, four from FRIM, one from Universiti Kebangsaan Malaysia, and one from UMS. Brief surveys are given in the Tree Flora of Sabah and Sarawak Newsletter 1/2 (1993).

Mr. P. BOYCE (Kew) visited Sarawak in March, 1994, to collect aroids as part of the Genera of Araceae Project running at Kew in collaboration with M. A species of *Nepenthes* (!) was found (see above).

Under the training aspect of the Tree Flora of Sabah and Sarawak Project, a Workshop on DELTA (DEscriptive Language for TAXonomy) was conducted from March 29th to April 2nd, 1994, at Sandakan. The Workshop was led by Dr. M.J. DALLWITZ, Division of Entomology, CSIRO, Canberra, one of the developers of the program, and attended by 30 local and overseas participants. During and immediately after the workshop Dr. KAMARUDDIN MAT SALLEH (UKSM) successfully completed the task of translating the menu system and help interface of INTKEY into Malay, the third non-English version of the package. There are also French and Portuguese versions.

It may be noted that DELTA is a very powerful system of organizing characters and their states on any subject, not necessarily taxonomic. (Dr. J.F. Veldkamp reports that he uses it all the time in his revisionary work for the Flora Malesiana.) It is especially good for the generation of descriptions, comparison of taxa, identification, setting up of basic files for cladistic analyses, etc. (the so-called INTKEY module), but not so much for making keys. For this PANKHURST'S DEDIT program is far superior. The handling of data by DELTA is quite bothersome, but has become a piece of cake now with the program TAXASOFT, developed by Mr. E. GOUDA, Botanic Gardens, Utrecht, NL-3508 TD Utrecht, The Netherlands, fax +31-30-535177, E-mail gouda@cc.ruu.nl. For anyone seriously using DELTA this program is an absolute must.

BOOK REVIEWS, ABSTRACTS, AND BIBLIOGRAPHY

The Earl of Cranbrook and David S. Edwards. *Belalong: A Tropical Rainforest*. The United Kingdom launching of *Belalong* was held at the Royal Geographical Society on Wednesday, June 22, 1994. The 390-page book, culminating from a 14-month expedition in the rainforests of Brunei Darussalam, is a detailed, richly illustrated case-study of the pristine Belalong forest in the heart of equatorial South East Asia.

The book will serve the lay-reader keen to learn more about the tropical forest biome, researchers, and undergraduates as a reference source to be used in the field. They also will serve both the GCSE and A-level (and the international equivalent) students of Geography and Biology. The book applies scientific theories to the context of this specific tropical environment.

Belalong: A Tropical Rainforest begins by explaining the origins and structure of the landform of the area in relation to its geological history and equatorial climate, and examines the role of water in shaping the environment. Following chapters explain the concept of biodiversity and describe the outstanding richness of tropical rainforest plants, fungi and animals, taking the Belalong as an example. The book clearly and concisely explains key features of natural processes in the forest environment. Closing chapters examine the value of the forest to people, and outline plans for its preservation and future wise management.

The book, with over 500 color photographs, maps, and text diagrams, has been compiled by the Earl of Cranbrook and David S. Edwards, who were joint leaders of the Universiti Brunei Darussalam/Royal Geographical Society, Brunei Rainforest Project, 1991-92. More than 70 scientists participated in the Project, and the research of many has contributed to this book.

In his Foreword, HRH The Prince of Wales (Project Patron), writes: 'It seems to me that the world's tropical rainforests represent one of the most fragile, most diverse, and least understood of all natural ecosystems. They are also currently the most threatened.....I congratulate everyone involved for their determination in completing this most worthwhile project, and I welcome this marvelous book as a valuable product of their work.'

The Earl of Cranbrook comments: '.....I am pleased that the quality of printing and book publication, achieved by Sun Tree Publishing, so brilliantly displays the

beauty and richness of this glorious forest and so effectively presents the collaborative work of all the people - Bruneians, British, and other nationalities - who have contributed to the success of our joint project.¹

For further information, please contact: Nigel Winsler, Deputy Director, RGS, or Alison Briston, Press Officer, RGS: Telephone: 44-1-71-589-5466; fax: 44-1-71-823-7200; or, Dr. David Edwards, Kuala Belalong Field Studies Centre, Department of Biology, Universiti Brunei Darussalam: Telephone: 10-673-2-427001; fax: 10-673-2-427003.

Alastair Morrison. Fair Land Sarawak: Some Recollections of an Expatriate Official. Ithaca, N.Y.: Studies on Southeast Asia No. 13, Southeast Asia Program, Cornell University. 182 pp. \$16.00.¹

I first read this book in manuscript almost twenty years ago when I was working on my doctoral dissertation. My rather single-minded interest then was in its references to Rajah Vyner Brooke's cession of Sarawak to Britain in 1946 and I found what Alastair Morrison had to say eminently sensible. Reading the whole text again in the attractive new format devised by Cornell for its Southeast Asian publications series, I now have a better appreciation of the broad range of his observations on the entire colonial period.

An aging 'cadet' administrative officer Morrison may have been when he and his German photographer wife, Hedda, arrived in Sarawak in 1947, but he had the good fortune to be posted to some of the more interesting places in that far-flung and thinly-populated state. Things had changed very little from the days of the Rajah, including the traditional tension between semi-autonomous outstation officers and regulation-wielding Kuching bureaucrats. At times, Morrison displayed symptoms of acute 'outstationitis'. Subsequent experience in the Secretariat as Principal Assistant Secretary (Defence), Deputy Finance Officer, Co-operatives Officer and finally, Information Officer, enabled him to see things from a different perspective, particularly when the pace of change increased in the late 1950s. Altogether, there was very little that he did not know about the workings of government at the centre and on the ground.

To put it in perspective, Morrison's memoir provides a valuable addition to those written earlier by other Sarawak government officers, A. B. Ward (*Rajah's Servant*,

1966) and K. H. Digby (*Lawyer in the Wilderness*, 1980), which were also published by Cornell. Ward's experience covered the last years of Rajah Charles' regime, and the early years of Rajah Vyner, while Digby bridged the period from the mid-1930s to the early 1950s, including the Japanese occupation. As yet, the colonial period has not yet been the subject of published academic studies and Morrison's work may well yet act as a stimulus.

Morrison paints a memorable picture of an outstation officer's life: the endless round of travelling between over-hospitable longhouses and hearing court cases of mind-boggling complexity. His diary accounts of 'The Case of Sia Murang's Cow' and 'The Estate of Sekelan Nawa' make it very clear why he bequeathed these to his successor. As he says, 'They could well be unsettled yet.' With typically self-deprecating humour, he also tells the story of a visit to a prosperous Dayak longhouse near Binatang on the Rejang which culminated in his falling headlong into the river. 'It was the only really popular thing I ever did in Sarawak', he remarks.

For those who are filled with nostalgic regret at the passing of old ways amongst the *ulu* peoples of Sarawak, Morrison repeats the horrifying story told by the Kayan chief, Aban Avit, to the American, William Furness, on the Tinjar at the turn of the century. In this, Aban Avit relates how, in order to 'blood' them, his father had instigated him and his brothers to spear an old slave-woman tied to a tree. Anecdotes about how the Kayans and others dealt with the Japanese during the last days of the war are also rather chilling. Interestingly, he challenges the conventional wisdom that the Australian-based SRD (Services Reconnaissance Detachment) units parachuted into the highlands in early 1945 performed a valuable function.

In the outstations, life in the 1940s was pretty much the same as it had been twenty years earlier when it was captured by W. Somerset Maugham's sharp pen. To take one example, John Fisher, a pre-war officer who was Morrison's Resident at Limbang, 'followed the old Sarawak custom whereby as dusk fell, shortly after six, you started to drink whisky. At 7:30 or later you went and had your bath and this was followed by a number of pink gins.'

In Kuching, expatriate social life could be oppressive. Morrison always tried to avoid Sunday curry lunch, which involved 'assembling at midday with people you see too much anyway and drinking beer, pink gin and brandy ginger ale until well into the afternoon. You probably do not have lunch until 3 p.m. It is immediately preceded - for the hardened toper - by slugs of neat gin with particles of white pepper floating in it, washed down with more beer. You

¹The author thanks the Southeast Asia Center of Northern Illinois University for giving permission for publication of this review.

eventually return home in a semi-comatose state late in the afternoon and feel dreadful on Monday morning.'

On the whole, however, Morrison provides a picture of an enlightened and easy-going administration, presided over for almost ten years by the talented and genial third governor, Anthony Abell. Sent down from Oxford for some misdemeanour, Abell was 'a prime example of the intelligent flexibility of the Colonial Office' Although he had served in Nigeria, he did not bring with him the stuffy attitudes which characterised many other former 'Africans' who were transferred to Sarawak. His informality and political subtlety were exactly what was needed after the somewhat stiff and inflexible first governor, Sir Charles Arden-Clarke, who had been sent to take a firm hand of things after the near fiasco of cession.

Where the colonial government failed in its responsibilities was in the vital areas of land reform and secondary and advanced education. Most of Sarawak's arable land was tied up by traditional native ownership. Consequently, many Chinese were obliged to farm illegally and other were frustrated enough to support the Communists who promised land reform. At the same time, the natives were not able to capitalise on their ownership. A serious re-examination of the land system was only begun in 1961 and the hard decisions were never made. Land provided the most difficult legacy of the new Sarawak state government under its talented but erratic first Chief Minister, Stephen Kalong Ningkan, and was one of the main reasons for his political demise in 1966.

Morrison had served in Malaya in Force 136 towards the end of the war and knew something of Communist methods of operation. However, like many other officers, he was slow to recognise the dangers of Communist organisation in Sarawak when it began to surface in the Chinese secondary schools in the early 1950s. Committed to a uniform system of English-medium education but unwilling to pay for it, the colonial government allowed the Anglican and Catholic mission schools and the Chinese clan association schools to continue as the main providers.

Sympathising with the frustrations of the young Chinese-educated in finding employment, Morrison did not find it surprising or harmful that radical thinking should develop amongst them. He treated Education department and police warnings with 'Communists behind every bush' scepticism. 'It was only with the passage of years', he wrote in 1976, 'that I came to realise that those personable youngsters were building up a movement which was later to engage in armed insurrection at a cost of many hundreds of lives and in the most vicious and ruthless elimination of those who did not agree with them'.

What makes the book rather different from others of this genre is the somewhat self-effacing personality of its author. The son of the celebrated Ernest ('Chinese') Morrison whose father had been a pioneer missionary in China, Alastair Morrison's family had a long association with the Far East. His brother, Ian, was one of the outstanding journalists of the Pacific war and his death in Korea in 1950 was a tragic loss. Alastair recounts his own extraordinary premonition of this event, which also provided a tragic climax of Han Suyin's classic novel, *Love Is A Many Splendoured Thing*.

Perhaps the best test of Morrison's fair-mindedness is his account of the dynamic and flamboyant but in so many ways odious curator of the Sarawak Museum, Tom Harrisson, D.S.O. Secure in the patronage of influential members of the British government and of Governor Anthony Abell, Harrisson ruled the Museum as his personal fiefdom. Dog-in-the-manger towards anyone else wanting to do serious research in Sarawak, he thereby enhanced his own 'expert' status. While his talent for publicity helped to put Sarawak and its peoples on the map, the value of much of his prolific work is now in question. Apart from the problems consequent on his do-it-yourself archaeology, there is Morrison's sobering revelation that his work on the Kayan, Kenyah, Kelabit and other 'Orang Ulu' was conducted mostly in bazaar Malay. Unwilling to dismiss Harrisson as a 'psychopath' (as many have done), Morrison suggests that 'to some extent, his was a case of partially-arrested development. One side of him never grew out of a stage of uncouth adolescent rebellion'. He certainly was an *enfant terrible*.

Not the least of the book's attractions are the photographs taken by Hedda Morrison, who died in 1991. While she is deservedly well-known for her splendid studies of Sarawak people and landscapes (*Sarawak*, 1957; *Life in a Longhouse*, 1962) and her earlier work in China in the 1930s (*A Photographer in Old Peking*, 1985), the previously unpublished portraits reproduced here add a valuable dimension to the narrative. In particular, I like the one of the irrepressible Temenggong Jugah sharing a joke with a British helicopter pilot during Confrontation and of pepper-planter Ngu Ee Shing in his shop near Sarikei. The frontispiece of a Kayan child at Long Miri on the Baram is an absolute gem. Like her husband, Hedda had a keen but sympathetic eye for the human condition. (Bob Reece, Murdoch University, Western Australia. Bob Reece is author of *The Name of Brooke: The End of White Rajah Rule in Sarawak*, Kuala Lumpur, OUP, 1982 [recently reprinted by the Sarawak Literary Society] and *Datu Bandar Abang Haji Mustapha of Sarawak: Some Reflections on His Life and Times*, Kuching, Sarawak Literary Society, 1994. He currently is working on a history of Sarawak during World War II.)

Robert H. W. Reece. *Abang Haji Mustapha of Sarawak: Some Reflections on His Life and Times*. Kuching, Sarawak: Sarawak Literary Society, 1994.

The Datu Bandar was born (1906) to the set of distinguished Malay families that traced lineage to pre-Brooke local rulers of Sarawak and that in the Brooke period made names for themselves in administration, religion, and politics. They are referred to broadly as *abang-abang*, more narrowly as the Datus of Sarawak. Abang Haji Mustapha's career was a long and distinguished one, stretching from the Brooke-era thirties through the Pacific War, the post-War colonial period, and into the formation of Malaysia.

Reece's biography of the Datu is rich in detail, being based not only on the documents and published sources but on extensive interviews conducted in Sarawak and elsewhere. We learn not only the Datu's many achievements, and the character of the Datu that allowed those achievements, but we also get intimate glimpses of the social and cultural life of the circles in which the Datu moved.

The Datu's energy, intelligence, judgment, steadfastness, and good English allowed a rapid rise in the Police and later in Native Affairs. Later yet he was the founder of the political party PANAS. His aims were to look after the welfare of Malays and other natives of Sarawak, but he was also insistent on broad policies to promote harmony among the peoples of Sarawak.

The Datu's strong and controversial stands for the cession of Sarawak to Britain in 1946 and for the Malaysia proposal of 1961 got him branded by some as a sellout. But time showed him to be correct in his stances. In recognition of his distinguished position in Sarawak and his efforts on behalf of Malaysia, the Datu was made Federal Senator and Minister without Portfolio in early 1964, but he died shortly thereafter. To his credit, according to Reece, the Datu did not die rich. He had put his own money into the party-political activities of his final years.

In addition to tracing the Datu's professional career, Reece also lets us know the sorts of entertainments that were popular during the Datu's life, when he got his first car, and much more that makes the life of this man intelligible and accessible to a wide range of readers.

Finally, it should be noted that the book begins with a substantial summary of what we know about pre-Brooke Sarawak, focussed on the Malay community. This includes a positive assessment of the provocative argument of J. W. Christie ("On Po-Ni: The Santubong Sites of Sarawak", *Sarawak Museum Journal*, V. 34,

1985, pp. 77-89) that the Santubong site in Sarawak was at least one of the sites referred to in Chinese sources and generally assumed to refer to Brunei.

The book contains about 75 photos or sketches, useful appendices, and a bibliography. There is, alas, no index. The writing is graceful. (Donald E. Brown, University of California, Santa Barbara)

A B S T R A C T S

Adelaar, K. Alexander. The Relevance of Salako for Proto-Malayic and for Old Malay Epigraphy. *Bijdragen tot de taal-, land- en volkenkunde*. 1992: -dl 148, afl. 3 en 4:381-408: bibl.

Salako is spoken in the Lundu District of Sarawak and the three discrete areas in *kabupaten* Sambas, Kalimantan Barat. As a Malayic-Dayak isocet it is historically important as it has developed in relative isolation and is therefore freer from intrusions from the *lingua franca*. This makes it important for the reconstruction of Proto-Malayic, especially morphologically and lexically. As such it is important in shedding light on the Telaga Batu inscriptions from South Sumatra and those from Gandasuli in Java. It provides key arguments for considering the languages of these inscriptions an early form of Malay. This identification has always been a matter of doubt and for the sake of convenience it has usually be referred to as "Old Malay". The article makes interesting points for regarding the Chamic languages and Acehnese as being more closely related to Malay than to Javanese. The Salako material also provides sound evidence for regarding "Old Malay" as an early form of Malay. (Rosemary L. Robson-McKillop)

Alihar, Fadri. *Proses Rekrutmen Tenaga Kerja di Lokasi Transmigrasi: Studi Kasus di Riau dan Kalimantan Selatan*. Masyarakat Indonesia, 1991, Vol. 18(1):55-72: bibl., tabs.

Recruitment of labor force is a process that reveals the progress of integration of incomers in transmigration areas. Integration has to be achieved on two levels: (1) between the transmigrants themselves; and (2) between the transmigrants and the local population. The role of the latter is important in providing information about job opportunities and this can accelerate the integration process. This paper presents qualitative and quantitative data from Riau and Kalimantan

Selatan in order to observe the relations between the recruitment of the labor force and social integration. (Rosemary L. Robson-McKillop)

Bailey, Conner, and Charles Zerner. Community-based Fisheries Management Institutions in Indonesia. *MAST: Maritime Anthropological Studies*, 1992, Vol. 5(1):1-17: bibl., ill.

Problems and prospects associated with community-based management of tropical fisheries resources are examined through a comparative case study based on field research conducted in Indonesia (Kapuas Hulu; Maluku) during 1990 and 1991. The argument presented is that the central government lacks both the detailed knowledge of local ecosystems and the enforcement capability necessary to effectively manage highly diverse fisheries resources in this far-flung nation. Thus, this sort of management is better entrusted to local communities. (Rosemary L. Robson-McKillop)

Bellwood, Peter. New Dates for Prehistoric Asian Rice. *Asian Perspectives*. 1992, Vol. 32(2):161-169: bibl., ill., map

At the moment the earliest recorded cultivation of rice was in the Yangzi Valley ca. 5000 B.C. Elsewhere, dates have been more difficult to establish. Accelerator Mass Spectrometry radiocarbon dates for rice husks found embedded in the fabric of pottery from sites in India, Sarawak, and Bali suggest that a date for the dispersal of rice throughout Southeast Asia can be placed by at least the mid-third millennium. (Rosemary L. Robson-McKillop)

Bernstein, Jay H. The Infusion of Teachers from Eastern Indonesia into Western Kalimantan. In Robert R. Reed, ed., *Patterns of Migration in Southeast Asia*. 1990. Berkeley, CA: Centers for South and Southeast Asia Studies, Occasional Paper No. 16.

In many rural and remote parts of Indonesia, education is still a luxury for many people for a number of reasons. The problem is exemplified in West Kalimantan. Here one of the greatest stumbling blocks is a shortage of teachers. During his fieldwork in the area, the author discovered that most of the teachers in the area were from Nusa Tenggara Timur. In general they had adapted well to the local life. However, his conclusion is that this sort of job migration is effective on a small-scale, but if implemented on a large scale it could cause more problems than it would solve. He concludes with a tribute to those NTT teachers who had made Kalimantan Barat so successfully their home. (Rosemary L. Robson-McKillop)

Bratawinata, Achmad Ariffien. Vegetation Analysis of the Tropical Forests on Mt. Embut and the Heath Forest of the Meratus Range, East Kalimantan with Special Reference to the Occurrence of *Agathis borneensis* in Relation to Edaphic Factors. In Ishemat Surianegara, ed. *Proceedings of the Fourth Round-Table Conference on Dipterocarps*. Bogor: SEAMEO, 1991, pp. 273-278: bibl., tabs.

Agathis is a coniferous tree which is found from Indonesia to the Pacific. It is well represented in Kalimantan but, although it is a highly commercial tree with good wood figuration and quality, little is known of its distribution and habitat. In order to establish this, three sites on Mount Embut in Long Ampung (Apo Kayan) for montane forest sampling, and four plots in heath forest (*hutan kerangas*) near the sea in Balikpapan, were surveyed. This article presents the results of the surveys. (Rosemary L. Robson-McKillop)

Brown, Donald E. The Penis Pin: An Unsolved Problem in the Relations between the Sexes in Borneo. In Vinson H. Sutlive, Jr., ed. *Female and Male in Borneo: Contributions and Challenges to Gender Studies*. Williamsburg, VA: Borneo Research Council Monograph Series, Vol. 1:435-454: bibl., ill., photogs.

Discussion of the state of affairs in research on the penis pin, worn by many of the men in Central Borneo. Evidence suggests that there is a widespread popular concept that Bornean men wear penis pins in order to enhance sexual pleasure, but there is no clear evidence that this concept adequately captures the real reasons why men wear penis pins. No female testimony supports the above-mentioned assumption. The true reasons for wearing a penis pin might be explained by either male machismo, or by Bornean cultural misconceptions. The penis pin may be an element of Bornean pornotopia, a reflection of the Bornean male's image of female sexuality. The problem is that the sexual act is surrounded by privacy and secrecy, and that Western observers have readily accepted the myth, because the thought that women crave the stimulation of an augmented penis, is as much at home in Western societies as it is in Borneo. (Youetta M. de Jager)

Cameron, Judith Anne. An Anthropologist's Interpretation of The Material Culture from the Cemetery Sector of the Great Cave in Sarawak: Some New Perspectives on the Early Chinese in Borneo. M. Phil. dissertation: Griffith University. 1994.

In an attempt to resolve a longstanding debate in Early Southeast Asian History concerning China's initial contacts in the South China Sea, this anthropological study focuses on some prehistoric artifacts recovered from an archaeological site on the northeast coast of Borneo. The artifacts, currently housed in the Sarawak Museum, were excavated by the Harrison team at the Great Cave in Sarawak in the 1950s and 1960s.

My thesis is that there are unrecognised, properly Sinicized Chinese burials in the cemetery sector of the Great Cave. I maintain that the cemetery burials are culturally specific, highly symbolic and out of context in Borneo and that in order to understand their cultural logic it is necessary to understand Chinese death ritual. My principal argument is that the prehistoric groups who buried their dead in the cemetery sector of the cave did so in accordance with ancient Chinese customary laws laid down in the *I Li*, one of the three Books of Rites compiled during the Zhou dynasty (1050 B.C. - 221 B.C.). I propose that the artifacts associated with the cemetery burials signify that ancient Chinese mortuary rites took place at the cemetery in the first millennium B.C. I propose that there are several layers of meaning encoded in the cemetery artifacts and when they are combined they become extraordinarily meaningful: a ritual set. I argue that the material remains at the cemetery are part of an early Chinese semiotic system and that the distinctively different burials in the cemetery sector of the Great Cave were performed by Early Chinese.

The empirical evidence put forward to support the thesis comes from the disciplines of Anthropology, Archaeology and History. To demonstrate the relationship between the cemetery artifacts and Early Chinese death ritual, I first analyse the customary laws prescribed for the burial of an Ordinary Zhou officer in Early Chinese historical records. These documents show the central role artifacts played in Early Chinese obsequies and the importance of orthopraxy. The artifacts described in the *I Li* are then sorted into mutually exclusive categories called artefact types, thereby creating a diagnostic tool which shows the specific types of artifacts that might reasonably be anticipated at an Early Chinese burial site.

The artifacts from the cemetery sector in the Sarawak Museum are further analysed with considerable attention afforded the more complex technologies: ceramics and textiles. My research reveals a strong correlation between each of the artifacts in the cemetery and Early Chinese equivalents and highlights strong affinities between the cemetery earthenwares and Zhou mortuary ceramics. My analysis also shows that the material and structural composition of the cemetery matting and textiles are completely in accordance with Chinese mats and textiles identified at Chinese archaeological sites belonging to the early dynastic period. More importantly, my findings show a complete congruence between the artifacts prescribed for Chinese obsequies and those contained in the cemetery sector of the Great Cave in Sarawak. Finally, the research shows the important relationship between correct performance of mortuary ritual and Chinese ethnicity, a relationship which strengthens my particular reading of the material culture.

Clayre, Beatrice. Focus in Lundayeh. Sarawak Museum Journal. 1991, Vol. 42(63):413-435: bibl., tabs.

This paper describes the focus system as it occurs in Lundayeh and Lun Bawang, two closely related dialects of the Apo Duat language group of

Southwest Sabah, north Sarawak, and Kalimantan Timur. The description is followed by a brief discussion of how Lundayeh relates to other languages in the area and a comparison with proto-Austronesian (PAN) focus affixes. (Rosemary L. Robson-McKillop)

Collins, James T. Bibliografi Dialek Melayu di Pulau Borneo. Kuala Lumpur: Dewan Bahasa dan Pustaka. 1990, xxvii, 100 pp.: map.

This annotated bibliography contains all data pertaining to the various Malay dialects spoken throughout the island of Kalimantan published up to 1987. The book also contains a linguistic essay on Bornean Malay dialects and notes on *adat*, traditional crafts, and literary works. (Rosemary L. Robson-McKillop)

Collins, James T. Bahasa Melayu di Sungai Mahakam: siasatan fonologi dialek Kutai. Sari, July, 1992, 10:3-24: bibl., diagrs., maps.

The Malay dialects spoken in East Kalimantan are little known as they have been scarcely studied, although Malay has been used in the area of Kutai since at least the fourth century A.D. In this article, the author takes a preliminary look at the Malay dialects spoken along the Mahakam River, taking that of Kota Bangun as his starting point. He concentrates on two phonological aspects: reflexes of the central vowels and the role of long consonants. This has led him to conclude that there are a number of variants, e.g., Tenggara, Mahakam Hulu, and Mahakam Hilir, but the picture still requires a lot of clarification. The data obtained so far have been useful for filling in some of the gaps in the genealogy of Malay. The author believes that the Kalimantan/Bornean branch of Malay was the first to separate from Old Malay. He provides a diagram showing the interrelationships of the Malay dialects of Kalimantan. (Rosemary L. Robson-McKillop)

Godoy, Ricardo A., and Tan Ching Feaw. The Profitability of Smallholder Rattan Cultivation in Southern Borneo, Indonesia. Human Ecology. 1989, Vol. 17(3):347-363: bibl., graph., tab.

Fieldwork in the village of Dadahup along the Lower Barito basin in Central Kalimantan shows that smallholders rattan cultivation is financially profitable to smallholders and economically profitable to the nation. The financial net present value (NPV) for green and processed canes is Rp 828,000 and Rp 946,000; the economic rate of return is about 22 percent for both green and processed canes. This article contains a discussion of the methodology for evaluating the shadow price of a non-timber forest good.

Hawkins, Mary. Slametan in South Kalimantan. In Paul Alexander, ed. *Creating Indonesian Cultures*. Sydney: Oceania Publications, 1989, pp. 159-174.

This essay describes the creation of a *selamatan* in Gunung Makmur, a transmigration area in South Kalimantan. The population consists of two major ethnic groups—Central and East Javanese, and the local Banjarese. Both have their own ideas about *selamatan*, a fact of which the villagers are well aware. The inhabitants see their village as consisting of two communities—the *urang gunung* (all Javanese) and the *urang pasar* (Banjar, Javanese, Madurese, Batak, and others). Each group has evolved its own style of *selamatan*. The focus of the discussion is the way the villagers have created these new-style *selamatan*, their content and their association with their respective communities. The author also reviews the modern function of the *selamatan*. (Rosemary L. Robson-McKillop)

Hull, Terence H. Population Growth Falling in Indonesia: Preliminary Results of the 1990 Census. *Bulletin of Indonesian Economic Studies*. 1991, Vol. 27(2):137-42: bibl., tabs.

Interviewing for the 1990 Census of Indonesia took place between 15th September and 31st October, 1990, and involved some 39,689,427 households and a total population of 179,194,223. This latter figure does not include the homeless, seafaring, or isolated people who together form an estimated 0.07 percent of the population. The figures imply a household size of 4.5 persons, compared with 4.9 in the 1980 Census. Initial results indicate a substantial decline in intercensal population growth rates, but these figures should be treated with caution as different analysts use different different formulas to calculate growth rates. However, even bearing this in mind, the author feels it is fairly safe to assume that fertility is falling throughout most of Indonesia and that migration has been affecting the numbers of people in Riau, Bengkulu, Central Sulawesi, and Irian Jaya. (Rosemary L. Robson-McKillop)

Inoue, M. Study on the Application of the Agricultural Intensification Theory to the Process of Changes in the Traditional Swidden Agriculture, Based on the Data in the Kenyah Dayak Villages. *Bulletin of the Forestry and Forest Products Research Institute (Japan)*. n.d., No. 363:1-20: bibl., ill., tabs.

This article illustrates the mechanisms of change in swidden agriculture of the Kenyah Dayak people in the interior of Kalimantan, and attempts are made to improve the theory of agricultural intensification. In order to explain the Kenyah process, two new concepts—"potential population density" and "intensity of land use frequency"—are defined. As the Kenyah shifting cultivators are incorporated in the market economy through migration downstream, their social structure changes, accompanied by a collapse of the rotation system which was previously sustainable. A series of processes resulting from migration can be

identified: (1) fall of potential population density; (2) intensification of land use frequency and saving of labor input; and (3) increase in long-term productivity and labor productivity. It is argued that local economic conditions are instrumental in these processes.

Lindblad, J. Thomas. The Process of Economic Development in the Outer Provinces of the Dutch East Indies. *Journal of the Japan-Netherlands Institute*, 1990, Vol. 2:208-234: bibl., diags., tabs.

There has been too little appreciation of the crucial contribution of the Outer Provinces to the economic development of the Netherlands East Indies. The aim of the author is to rectify this omission by demonstrating how the Outer Provinces rose to prominence in the Archipelago via economic expansion. Economic development there usually began late. 1870, the year in which private investment began to be encouraged, can be seen as the turning point. The greatest problem was lack of labor, which was to produce the Coolie Ordinance of 1880. Economic expansion went hand in hand with colonial expansion. Most people in the Outer Provinces lived a kind of pioneering life, but these areas were the source of new products for which there was a great demand, such as oil and rubber. Generally, most profits were drained away. The author proposes an hypothesis to explain the number of patterns of regional variation. In doing so, he establishes three sorts of classifications, each with its own set of indicators. The "high tide" of these regions was the 1920s, but this was to make them extra vulnerable to world markets during the thirties. (Rosemary L. Robson-McKillop)

Loveard, Keith. The Long Story: Dispossessed: The Borneo Chainsaw Massacre: It's Not Too Late. *Asiaweek*. 1992, Vol. 18(26):21-34: ill., maps.

A general but concise survey of the present state of the environment of Kalimantan as a whole. It pays particular attention to the plight of the various Dayak peoples in the face of the timber-getting impact on their traditional ways of life. (Rosemary L. Robson-McKillop)

Matius, Paulus, and Yasuyuki Okimori. Floristic Composition and Dynamics of Lowland Dipterocarps Forest Largely Burned in Bukit Soeharto Protection Forest, East Kalimantan. In Ishemat Surianegara, ed. *Proceedings of the Fourth Roundtable Conference on Dipterocarps*. 1991. Bogor: SEAMEO, pp. 257-271: bibl., maps, tabs.

The forest fires which occurred in the Kutai region of East Kalimantan in 1982-83 damaged 3.6 million hectares of forest. This article describes the current situation of the lowland Dipterocarp forest in the area. An attempt is made to clarify the succession process and its dynamics and then to diagnose its rehabilitation ability. (Rosemary L. Robson-McKillop)

Ngo, T. H. G. Mering. Ambiguity in Property Rights: Lesson from the Kayan of Kalimantan. *Antropologi Indonesia*. 1991, Vol. 15(49), pp. 79-89: bibl., maps.

The Indonesian Government has done little to maintain *adat* law, which it does not consider to be on the same level as state law. This is reflected in the many land dispute cases, which have increased sharply since 1980. In this instance, the author examines the treatment of the land and property rights of the Kayan of West Kalimantan under UUPA No. 5, 1960. He notes that government officials have tended to perpetuate the ambiguity towards land and property rights. The Basic Forestry Law No. 5, 1967 (TGHK *Tata Guna Hutan Kesepakatan*) also does not respect indigenous land. The first principle which should be adopted is to acknowledge the Kayan land rights and for this a proper survey should be made. This could be given an ethnohistorical perspective by recording oral histories. There should be a continuous monitoring of land tenure patterns. (Rosemary L. Robson-McKillop)

Pangestu, Mari. Segi Tiga Pertumbuhan Sebagai Model Untuk Kerja Sama Ekonomi ASEAN: Suatu Perspektif Indonesia. *Analisis CSIS*. 1992, Vol. 21(2):128-157: bibl., tabs.

The idea of "growth triangles" is being widely promoted in the ASEAN area as the ideal model for integrating economic cooperation. This article discusses the Singapore-Riau (Batam)(SIJORI) triangle, which has been a real success story. Other potential areas for similar development are Penang-Medan-Phuket, Aceh Timur-Medan-Penang, and Kalimantan-Sabah-Philippines. (Rosemary L. Robson-McKillop)

Peluso, Nancy Lee. The Political Ecology of Extraction and Extractive Reserves in East Kalimantan, Indonesia. *Development and Change*. 1992, Vol. 23(4):49-74: bibl.

Political ecology analysis which examines the rattan extraction in East Kalimantan in order to explore potential constraints on creating extractive reserves under specific politico-economic conditions. Discussion of traditional rattan management in East Kalimantan, which focuses on local systems of control over and access to rattan resources, and social relations between collectors and traders. There is a survey of political and economic changes from 1970 to 1989, conjunctures and changes in the forestry sector, and in local people. The article closes with a discussion of legal and sociological issues related to the creation of extractive reserves in East Kalimantan. (Youetta M. de Jager)

Potter, Leslie. Environmental and Social Aspects of Timber Exploitation in Kalimantan, 1967-1989. *In* *Natural Resources of South-East Asia*. Oxford: Oxford University Press. 1991:177-211: figs., tabs.

An examination of the environmental and social effects of the systematic exploitation of the forests of the Outer Islands, and specifically those of Kalimantan, is presented. The focus is on the developments between 1967 and 1979, when the transition to mechanized logging occurred, and between 1980 and 1989, when the government's original policy of exporting logs was replaced by a policy of supplying raw materials for the domestic plywood industry. Other aspects of land use within forested areas are considered, including the future of the transmigration program and of timber estates, as well as policies to reduce the rate of forest production.

Priasukmana, Soetarso. Planting Experiments of Dipterocarps in East Kalimantan. *In* *Ishemat Surianegara*, ed. *Proceedings of the Fourth Round-table Conference on Dipterocarps*. 1991. Bogor: SEAMEO, pp. 417-423: bibl., tabs.

Dipterocarps are the major indigenous tree species in East Kalimantan. This paper is a report of mixed planting experiments which were carried out with Dipterocarps in an area damaged by fire and on a timber estate. It has been observed that if Dipterocarps are planted in conjunction with "fast growing species", this should be properly planned so that the latter can be easily extracted. (Rosemary L. Robson-McKillop)

Ptak, Roderich. The Northern Trade Route to the Spice Islands: South China Sea-Sulu Zone-North Moluccas: 14th to early 16th Century. *Archipel*. 1992, No. 43:27-56: maps, tabs.

The North Moluccas, one of the eastern terminals of the intra-Asian trade, could be reached by two routes: the "Java route" and the "Borneo route". The latter is also referred to as the "northern route" and this paper examines the political and other contributory factors which affected it between the 14th and the early 16th centuries. (Rosemary L. Robson-McKillop)

Rousseau, Jérôme. Gender and Class in Central Borneo. *In* *Vinson H. Sutlive, Jr., ed. Female and Male in Borneo: Contributions and Challenges to Gender Studies*. Williamsburg, VA: Borneo Research Council Monograph Series Vol. 1, pp. 403-414: bibl.

Discussion of social differentiation by gender among the people of Central Borneo. There is no segregation of the sexes and relatively little sexual inequality. Social differentiation by gender exists, however, and gender equality is closely linked with the class system. The relative equality of genders among the Kayan may be a consequence of the class structure, which has reduced the significance of inequality based on gender and age. (Youetta M. de Jager)

Saccheri, Illik. Subsistence and Environment of a Highland Kenyah Community. *Sarawak Museum Journal*. 1991, Vol. 42(63):193-250: bibl., diags., maps, tabs.

This paper is an abridged version of the research report of the Edinburgh University Kalimantan Expedition (1988). The aim was to make a description of subsistence strategies, principally for the provision of food, of a Kenyah community in the highland rain forest of the Apo Kayan in Kalimantan Timur. (Rosemary L. Robson-McKillop)

Sastrawinata, Hidayat Atje, and Riskan Effendy. The Influences of Several Liberation Treatments on the Natural Regeneration of Dipterocarps in Logged-over Forest in Kintap, South Kalimantan. *In* Ishemat Surianegara, ed. *Proceedings of the Fourth Round-table Conference on Dipterocarps*. 1991. Bogor: SEAMEO, pp. 395-405: bibl., maps, tabs.

In 1972 the Indonesian Selective Felling and Replanting System (*Tebang Pilih Tanam Indonesia* or TPTI) was introduced as an alternative means of silviculture. The authors of this paper plead for the publication of a silvicultural operations manual which can be adapted to prevailing local conditions. This manual should be based on information obtained through investigation of the effectiveness of several liberation treatments on the improvement of natural forest regeneration in a logged-over area. An exemplary investigation of such an area was carried out in Kintap, South Kalimantan. (Rosemary L. Robson-McKillop)

Schiller, Anne. On "The Watersnake Which is Also a Hornbill": Male and Female in Ngaju Dayak Mortuary Symbolology. *In* Vinson H. Sutlive, Jr., ed. *Female and Male in Borneo: Contributions and Challenges to Gender Studies*. Williamsburg, VA: Borneo Research Council Monograph Series Volume 1. 1991, pp. 415-434: bibl., ills., photogs.

Examination of several aspects of Ngaju mortuary symbolism, based on duality in Ngaju classification, i.e., the juxtaposition of male and female representations, which comprise important symbols in Ngaju mortuary celebrations. Description of death rituals and mortuary symbolology of the Kahayan River Ngaju, and a discussion of the analogy between hornbills and humans. The complementarity of male and female categories is clearly expressed in the mortuary symbolology. The norms expressed through these dual symbols give information about conceptualizations of parameters of kinship, reverberate in cosmological beliefs concerning the perils of miscegenation, and govern gender relations. (Youetta M. de Jager)

Setyarso, Agus. Assessment of Stand Structure and Growth After an Intensive Logging in Dipterocarp Forest. *In* Ishemat Surianegara, ed. *Proceedings of the Fourth Round-table Conference on Dipterocarps*. 1991. Bogor: SEAMEO, pp. 191-200: bibl., diags., tabs.

The theme of this paper is that the conflicting problems of maximizing timber production and minimizing damage to the forest ecosystem can be compromised by the rationalizing of management strategy, which takes the principle of sustainability fully into account. It takes as its example a specific regeneration project in a predominantly Dipterocarp forest on the island of Pulau Laut in South Kalimantan. (Rosemary L. Robson-McKillop)

Steinmayer, Otto. The Loincloth of Borneo. *Sarawak Museum Journal*. 1991, Vol. 42(63):43-60: bibl., ills.

A paper on the loincloth one could assume should be like the article of clothing itself—short and only cover the bare essentials. Yet people wear clothes for many reasons and the subject of the loincloth provides an occasion for remarks on history, culture, and psychology. Besides giving information on all of the above points in various Dayak societies, the author also provides a description, plus diagram, of how to put on a loincloth, now a fast disappearing art, even in Kalimantan. (Rosemary L. Robson-McKillop)

Sudaryanto, Tahlim and Faisal Kasryno. Modern Rice Variety Adoption and Factor-Market Adjustments in Indonesia. *In* Christina C. David and Kejiro Otsuka, eds. *Modern Rice Technology and Income Distribution in Asia*. Manila: L. Rienner Publishers: International Rice Research Institute. 1994. Pp. 107-127: map, tabs. (Youetta M. de Jager)

With an annual growth of 4.5 per cent Indonesia has developed from the world's major importer of rice in the late 1970s (i.e. 20 per cent of internationally traded rice) to being self-sufficient in the mid-1980s. The impact of modern rice technology on labor in Java is of central concern to Indonesia. The authors examine the effects of modern rice technology on regional patterns of wages and returns to land, focusing on the role of interregional labor migration in equalizing wages and, thus, in mitigating the potentially inequitable effects of technology adoption in the favorable region on the welfare of people in the less favored region. They describe rice production environments and the study villages in five provinces: West, Central and East Java, Lampung, and South Kalimantan, examining factors affecting modern variety adoption as well as the impact of technology adoption on fertilizer use and land productivity; analyzing the relation between technology adoption and demographic changes; and exploring the extent to which market adjustments lead to equalization of wages and returns to land across the regions.

Sumitro, Achmad. The Cutting of Climax Trees of Dipterocarp Stand Under Intensive Management. In Ishemat Surianegara, ed. Proceedings of the Fourth Round-table Conference on Dipterocarps. 1991. Bogor: SEAMEO, pp. 201-212: bibl., diagrs., ill., tabs.

This is a report of the study carried out by the Faculty of Forestry of UGM in the government forest estate on Pulau Laut in South Kalimantan. It introduces a plan intensive management of a logged-over Dipterocarp forest, which includes the felling of old residual trees. It states that at least a quarter of these old trees should be left standing. (Rosemary L. Robson-McKillop)

Syamsuddin, Helius. Islam and Resistance in South and Central Kalimantan in the Nineteenth and Early Twentieth Centuries. In M. C. Ricklefs, ed. Islam in the Indonesian Social Context. Clayton: Centre of Southeast Asian Studies, Monash University. 1991, pp. 7-18.

This paper discusses the process of Islamization among the Dayaks and the revitalization of Islam in the 19th century when the *tarekat Beratib Beamal*, preaching the ideology of *jihād* or *perang sabil*, played an important part in the long resistance against the Dutch in South and Central Kalimantan. An added incentive to strengthen resistance to the Dutch colonial power was the belief in the *Imam Mahadi*. (Youetta M. de Jager)

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NOTES FROM THE EDITOR (Cont'd)

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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 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 of 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 endeavors, conservation activities, and the practical application of research results.

Support for the activities of the Council comes from subscriptions to the *Borneo Research Bulletin*, 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 interest; (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 the 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 judgment, experience and personal knowledge on the part of the author in the preparation of the material so that an original conclusion is reached.

- **Brief Communications:** 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 form items appearing in other places that may not be readily accessible to the readers of the *Bulletin* 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 *Bulletin*, and, consequently, reprints or other notices of recent publications would be gratefully received by the Editor.
- **Citations:** Citations are to be entered without quotation marks ('inverted commas') or underlining, the **ONLY** special fonts will be (1) italicization of titles of books or monographs when these appear in text and (2) *In* when a citation is a chapter in an edited collection.
- **Other Items:** Personal news, brief summaries or research activities, recent publications, and other brief items will appear without the source specifically indicated. The Editor urges those contributing such news items to send them in the form in which the contributor wishes them to appear rather than leaving this to the discretion of the Editor.
- **Working Papers:** Research reports or papers exceeding 10 double-spaced pages will be published as Working Papers. Authors who submit such papers will be consulted by the Editor who, upon obtaining an author's consent, will edit and process the paper for distribution by private order. A list of Working Papers, with the cost of each, will be included in each issue of the *Bulletin*.

All contributions should be sent to Dr. Clifford Sather, *Borneo Research Bulletin*, 7405 SE 18th Street, Portland, OR 97202 USA.

STYLE OF 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 the 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 number 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.

Artwork is to be submitted in professionally prepared, camera-ready copy. Costs incurred by the Council in reproducing maps or illustrations will be charged to the author.

SUBSCRIPTION CHARGES

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