

# BORNEO RESEARCH BULLETIN

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NOTES FROM THE EDITOR

If you thought your address label on this issue of the Bulletin looked different, you were right! Automation has come to our distribution system, or, at least to preparing address labels. Robert Austin very generously offered to punch the cards and produce the labels for this issue. Until he is better paid, our sincere thanks and appreciation to Bob for this contribution.

It is with a sense of personal and professional loss that we report the deaths of James C. Jackson and Johannes Nicolaisen. Both men were highly respected for their research activities and contributions to Bornean scholarship. On behalf of the readers of the Bulletin and others who are beneficiaries of their work, we extend our heartfelt sympathies and condolences to both families.

Interest in ecological and sociological factors which have influenced systems of land tenure in Borneo remains high. This is evident in Michael Dove's review of past articles on the subject and analysis of his materials on the Kantu' (pp. 3-19), and, in the letter received from Dr. Patau Rubis (p. 29).

Donald Brown's remarks in "Brunei Revisited" (pp. 24-25) hopefully will encourage other persons living in Borneo or visiting areas where they have worked to describe changes they observe.

Our gratitude is due the following persons for their continuing financial support of the Bulletin through their contributions: George and Laura Appell, Robert Austin, Martin Baier, Ruth C. Barnes, D. E. Brown, William L. Collier, E. J. H. Corner, Richard Fidler, C. N. Crisswell, J. Andrew Fowler, W. T. Frank, William Robert Geddes, Robert Harrison, Erik Jensen, Victor T. King, Michael Leigh, David McCredie, A. R. G. Morrison, H. Arlo Nimmo, J. Q. Phillipps, Ifor B. Powell, A. J. N. Richards, William Schneider, Barbara Smith, Orville Smith, Robert Tillman, C. H. Wake, Peter Weldon, G. W. White, Herbert Whittier, Leigh Wright, and Inger Wulff.

THE BORNEO RESEARCH COUNCIL

The Borneo Research Council was founded in 1968 and its membership consists of Fellows, an international group of scholars who are professionally engaged in research in Borneo. The goals of the Council are (1) to promote scientific research in the social, biological and medical sciences in Borneo; (2) to permit the research community, interested Borneo government departments and others to keep abreast of ongoing research and its results; (3) to serve as a vehicle for drawing attention to urgent research problems; (4) to coordinate the flow of information on Borneo research arising from many diverse sources; (5) to disseminate rapidly the initial results of research activity; and (6) to facilitate research by reporting on current conditions. The functions of the Council also (cont. p. 36)

R E S E A R C H   N O T E S

DEVELOPMENT OF TRIBAL LAND-RIGHTS IN BORNEO:

THE ROLE OF ECOLOGICAL FACTORS

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Introduction

There is an ongoing debate (now almost nine years old) over the role of ecological variables in the development of systems of land-tenure, among tribal, swidden agriculturalists in Borneo. In this paper, it is suggested that such variables are indeed important, based on an analysis of the role of rainfall in the land-tenure system of one Dayak group, the Kantu'. The Kantu' experience continuous and considerable rainfall, which makes burning the swiddens problematic, and they recognize relatively permanent household rights to secondary forest, which is easiest to burn (e.g., compared to primary forest). It is further suggested in this paper that the importance of this role cannot be appreciated unless other, relevant factors are held constant, and that for this reason (among others) a diachronic perspective is especially useful. Finally, the view of change in land tenure as slow and unilinear is rejected as both an over-simplification and an under-estimation of its responsiveness as a mechanism of socio-economic adaptation.

The Bornean Debate

This debate was initiated by Appell (1971) in a paper in which he suggested that ecological variables (viz., the amount of rainfall and soil composition) may explain the difference between the permanent land-tenure of the Iban and Land Dayak, and the more limited tenure of the Rungus. In one of the more recent contributions to the debate, Weinstock (1979) attempts to demonstrate that land-tenure practices in Borneo do not co-vary with ecological factors, and on this basis he rejects Appell's hypothesis, suggesting instead that variation in land-tenure is due to variation in social and cultural factors. This same conclusion was reached earlier by Dixon (1974). Dixon went further, however, and specified one of the social-cultural factors which may be responsible for the variation in land tenure. This was population/land pressure, which he used to explain the current, limited nature of household land tenure among the Rungus. Only one writer, King (1975), seemed to accept the possibility that ecological variables may account for some of the difference in systems of land tenure; but he thought it "perhaps impossible" (p. 14) to

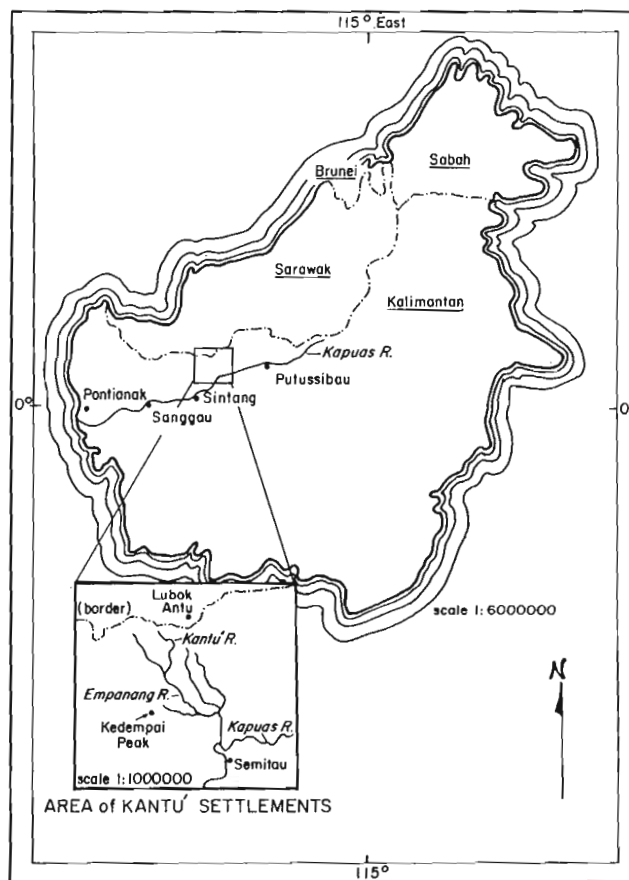
determine the precise role of these variables, given that they operate "along with socio-economic and cultural variables in different degrees and in different ways in time and space" (ibid.).

There has been one, singular failing in the later stages of this debate on the role of ecological factors. This is the failure to recognize that ecological factors will play a constant, determinate role only when other factors are also held constant. When other factors (e.g., social, economic, and political factors) vary, the role or influence of ecological factors necessarily will vary too. Because they fail to recognize this, both Weinstock and Dixon are led to conclude that ecological factors are not determinate at all. That is, they are led to this conclusion because they erroneously assume these other factors to be constant in their test of the influence of ecological factors. It would be truer to say that ecological factors are determinate of phenomena such as land tenure in conjunction with social and cultural factors. King recognizes this simple truth. He is too pessimistic, however, in despairing of our ability to isolate the influence of ecological factors from the influence of other types of factors. This paper will demonstrate that it is indeed possible to isolate this influence of different factors on social phenomena, given adequate data. In examining the various determinants on land tenure systems, what is particularly needed is detailed data on the past and present cultural ecology. These data are difficult but not impossible to obtain. Such data will be presented here, drawing upon the author's research (1974-1976) among the Melaban Kantu', an Ibanic group of swidden agriculturalists living at the juncture of the Epanang and Kantu' rivers in West Kalimantan (see Figure 1).

The Kantu' System of Land-Tenure

The Kantu' currently possess a system of land-tenure which is very similar to that of the Iban, as described by Freeman (1970). Thus, land-rights are established by the first felling of the primary forest on that land.<sup>2</sup> These rights reside in the household (*bilek*) of the feller(s). This household continues to hold rights to that land, even after its primary-forest swidden has been abandoned and the land has reverted to secondary forest. In fact, once established, these land-rights are potentially unlimited in duration, given also that the household itself, as Appell (1971:18) aptly put it, "exists jurally in perpetuity, through the incorporation of one child and his/her spouse in each generation." When the household undergoes partition, its land-rights are not divided, but simply continue to be shared equally among the siblings involved in the partition. While land rights are primarily held by the household, residual rights are held by the longhouse (*rumah*). These latter rights are activated in the event that a household from another longhouse tries to clear land within the longhouse territory, or in the event that a household from within the longhouse wishes to move out and away. The most important feature of Kantu' land-tenure, within the context of the debate on land-tenure and ecology, is that land-rights are potentially "unlimited" in duration, as among the Iban, Land Dayak, Ma'anyan, and Maloh, as opposed to "limited" as among the Rungus.<sup>3</sup>

The unlimited duration of Kantu' land-rights can be attributed to several factors, among them ecological factors. The pattern of rainfall is arguably the most important of the several ecological factors that have been introduced



in the debate on ecological determinants of land tenure.<sup>4</sup> Patterns of rainfall vary considerably through the interior of Borneo, and this variation can be an important determinant of variation in social phenomena. Weinstock dismisses the importance of this variation on the basis that all of the tribal groups in question (Rungus, Ma'anyan, Land Dayak, Iban and Maloh) receive at least 90 inches of rain per year, and hence all have "udic moisture regimes" (1979:8). This conclusion can be questioned, on the basis that the range of variation in annual rainfall, among these five groups, totals almost 80 inches per year. This is shown in the following table, to which rainfall data for the Kantu' have also been added.<sup>5</sup>

	Rungus	Ma'anyan	Land Dayak	Iban	Kantu'	Maloh
Total Annual Rainfall	91	91.8	132.6	145.6	168.9	169.6
Total Rainfall during July, August, Sept.	13	9.3	27.8	30.3	50.9	30

More important than the variation among these groups in annual rainfall is the variation in rainfall during the (swidden) burn-months of July, August, and September. The above table shows that the range in variation is over 500 percent, namely between the Ma'anyan (9.3 inches) and the Kantu' (50.9 inches).<sup>6</sup> The significance of this considerable variation is that certain groups (viz., the Land Dayak, Iban, Kantu', and Maloh, each of which receives an average of 34.8 inches of rainfall during the burn-months) will clearly have a more difficult time (cet. par.) burning their swiddens than will certain other groups (viz., the Rungus or Ma'anyan, which receive an average of only 11.1 inches of rain during the burn-months).

For the Kantu' and other high rainfall groups, the greater difficulty in burning the swiddens causes them to place a greater value (cet. par.) on secondary forest than would otherwise be the case. Because the average secondary forest tree is smaller than the average primary forest tree, the former type of forest will dry out quicker than the latter type.<sup>7</sup> Hence, secondary forest swiddens can be successfully burned after a shorter period of drought (and following a greater amount of rainfall) than can primary forest swiddens, one consequence of which is that the burns are usually better in the former than in the latter.<sup>8</sup> The difference in burn-success, between primary and secondary forest swiddens, is reflected in a difference in rice-yields (although other factors are involved as well). Among the Kantu', rice-yields average 1213 liters (of threshed and husked rice) per hectare in secondary forest swiddens, while averaging just 737 liters per hectare in primary forest swiddens. With respect to the association between yields, the burn and heavy forest rainfall that they receive, the Kantu' properly value secondary forest over primary forest. This valuation is reversed, however, with respect to a second major swidden-problem, that of regrowth.

Both primary and secondary forest, after being cleared for swiddens, succeed to a complex of herbaceous and ligneous matter that the Kantu' term, and treat, as "weeds" (*rumpu*). However, there is a critical difference, between the two forest types, in the timing of this succession. In secondary forest swiddens, the succession begins sufficiently early to pose a threat to the growing rice plants, while in primary forest swiddens it does not. This difference is reflected in the fact that the former are always weeded (once) by the Kantu', whereas the latter are almost never weeded.<sup>9</sup> The need to weed (or not) a swidden is important to the Kantu' because of the great amount of labor involved. An average of 49 work-days are required to weed one hectare (in a secondary forest swidden), or a total of 130 work-days for the average sized swidden. With regard to the weeding burden, therefore, the Kantu' value primary forest over secondary forest.

Thus, there are costs and benefits to the farming of both primary and secondary forest. There tends to be a problem with the burn in the former but not the latter, whereas there is a problem with regrowth in the latter but not the former.<sup>10</sup> This is not to say that (cet.par.) either forest type is equally desirable, however. It is important to note that the major problem in farming primary forest, namely a poor burn, cannot be remedied by additional labor inputs. (The great mass of the timber involved prohibits the performance of any remedial measures, such as reburning, following a poor burn.) In contrast, the major problem in farming secondary forest, namely regrowth, can be remedied through the input of additional labor, in weeding.<sup>11</sup>

In terms of local ecological factors, therefore, the relative desirability of secondary forest is sufficiently great to explain why rights to secondary forest are not relinquished to the community after its use, but are held (potentially) in perpetuity by the user, the household.<sup>12</sup> This case appears to support Appell's hypothesis, relating the permanency of household rights to the value of secondary forest, which in turn is related to high amounts of rainfall and the difficulty of burning the swidden. This support for the Appell hypothesis might be refuted on either of two bases: (1) if this same pattern of rainfall and this same system of land-rights are not invariably associated elsewhere in Borneo or, (2) if within the Kantu' territory, there has been historical variation in this system of land rights (see below) without any co-variation in the pattern of rainfall.

In order to understand why these refutations are not valid as well as to appreciate more fully the role of the ecological factors in the land-tenure system, it is necessary to place the contemporary Kantu' situation in historical perspective.

#### The Historical Development of Kantu' Land Tenure

The system of land tenure described above is of comparatively recent origin. Through the 19th century, the Kantu' system of land tenure was quite different. The longhouse seems to have had a delimited territory, then as now, but individual households did not hold exclusive rights to given sections of forest within this territory. That is, neither by pioneer cultivation nor by any other means was an individual household able to establish exclusive

rights to sections of secondary (or primary) forest. The first change in this system consisted of longhouse recognition of a household's right of *mudas*. If a potent omen (*burong bisa*) was observed during the planting of a primary forest swidden, the household making that swidden was later required to make an offering (*mudas*) of one or more pigs. The making of this offering then gave that household the prior right to farm that particular section of land once more, at a time of its own choosing, before the land would become a free good, available for farming to all households in the longhouse. A further dramatic change occurred in the first decades of this century, when the Kantu' consciously and systematically adopted the fundamental tenet of their present system of land tenure, which is that the clearing of primary forest confers upon the household which does the clearing exclusive rights, potentially unlimited in duration, to the secondary forest which succeeds on that site.

Among the Kantu', therefore, the existence of household rights to land is the product of at most the past 15 years. The change, from no recognition of household land-rights, to such recognition, cannot be attributed to any determinate changes in the relevant ecological factors. The historical records do not point to any change in the rainfall pattern in the Empanang River basin, during the period in question. In addition, it is known that the Kantu' were settled in this valley long before the turn of the century, and so the change in their system of land tenure cannot be attributed to moving into a new and different environment.<sup>13</sup> Thus, the relevant ecological factors were constant. Other, non-ecological factors were not constant, however. Perhaps most important were the several changes, beginning in the last part of the 19th century and continuing on into this century, attendant upon the gradual cessation of large-scale warfare between the Kantu' and the Sarawak Iban.

As long as warfare was still endemic, there was little pressure for the development of household rights to secondary forest. The Kantu' themselves cite several reasons for this. First, the chronic warfare, with the recurrent need to flee or advance against enemy forces, necessitated a semi-migratory settlement system, based upon rudimentary, short-lived, and easily abandoned longhouses (*dampa'*). This settlement pattern militated against the development of rights to specific sections of secondary forest, given the possibility that a group would not remain in one area long enough to farm both the primary forest and the secondary forest with which it would be succeeded. In addition, the exigencies of wartime obliged all the households in the longhouse to farm near one another, making their swiddens in a cluster as opposed to locations in separate corners of the longhouse territory. This particular land-use pattern also militated against the development of household rights to secondary forest, since the existence of such rights would have made this pattern more difficult to effect (*cet.par.*), by putting the claims of individual households before the needs of the whole longhouse. Finally, and of greatest importance, individual rights to secondary forest did not develop at this time because the exigencies of warfare placed a premium on primary forest, not secondary forest. As the author has demonstrated elsewhere (Dove 1977), the farming of secondary forest was generally undesirable in wartime, because of the need for such swiddens (but not primary forest swiddens) to be weeded, which heightened the defensive burden at the same time that it limited offensive capabilities.

During this historical period of warfare, therefore, both secondary forest itself, and household rights to this forest, were of little value. This is not to say that the ecological factor, rainfall, which today makes the existence of rights to secondary forest attractive, was not operable then. It is merely to say that the influence of this variable was largely offset by the overriding importance of other variables, which placed an opposing value on the absence of rights, and on the value of primary forest.

As large-scale warfare and the Iban gradually diminished, the force of these several factors which favored the absence of rights and the use of primary forest also began to diminish. As this occurred, the relative value of secondary forest (given its higher yields, as well as the rainfall/burn problem with primary forest) began to increase, and pressure began to build for the recognition of rights to this forest. In addition to the change in the military circumstances of the Kantu', however, at least two other factors were involved in this trend, both of which are mentioned explicitly by the Kantu' in this regard. These factors bear upon, not the differential valuation of primary versus secondary forest, but upon a general increase in the valuation of forest/land of any type. First, the cessation of warfare, and the consequent removal of the pressures against sedentarism, enabled the Kantu' to start planting rubber groves, a thankless endeavor unless the group can remain in the same area for two generations or more. The Kantu' note that such planting permanently removes land from the swidden cycle (with rare exceptions). They also note that the sizable income to be made from rubber gave land a value it previously did not have, and that this, in turn, led to the first sales of land. For both reasons, they say that pressure was generated for the recognition of household rights to individual sections of secondary forest. Second, the cessation of warfare eventually led to the negotiated settlement of Sarawak Iban on three sides of the Melaban Kantu' territory. Shortly thereafter, the Kantu' became aware that the Iban did recognize household rights to secondary forest, and they (the Kantu') say that they adopted this system themselves, in part, because they feared that otherwise they would be at a disadvantage in land disputes with the Iban.<sup>14</sup> The Iban settlement itself may have created some pressure for the recognition of household rights to secondary forest, because it practically eliminated any possibility for the expansion of the Kantu' territory. This contributed to a new image of the forest within that territory as finite, and hence, scarce.

Given the finiteness of the Kantu' territory, population growth became a third factor in the development of forest-rights. Due to the cessation of warfare, among other factors, the Kantu' population in the Empanang valley has expanded rapidly this century.<sup>15</sup> During the 21 months for which the author has records, the Kantu' population of the longhouse Tikul Batu grew at an annual rate of four percent. This growth has slowly but surely pushed population/land pressure close to critical limits. For example, in September, 1974, the population of the longhouse Tikul Batu was 115 persons. During the 1974-75 swidden year, the longhouse inhabitants cleared a total of 69.5 hectares of swiddens, yielding an average of .6 hectare per person. The amount of arable land in the longhouse's territory is approximately 750 hectares (out of a total of 1000 hectares). Given a minimal fallow period



of seven years, it can be calculated that the territory will support (at the 1974-75 level of exploitation) a maximum of 156 persons.<sup>16</sup> If the Kantu' population continues to grow at the rate of four percent per year (an illustrative if perhaps unlikely assumption), it will pass the critical population size of 156 persons, or 15.6 persons per square kilometer (counting the arable as well as non-arable land in the territory) by 1982.<sup>17</sup> This unilineal increase in population/land pressure, reaching, as it has, levels unique in the history of the Kantu' occupation of the Empanang valley, has not occurred without recognition by, or reaction from, the Kantu'.

This palpable increase in population/land pressure, in addition to the other changes more directly related to the cessation of headhunting, stimulated further developments in Kantu' land tenure, beyond the initial recognition of household rights to secondary forest based on the first clearing of the primary forest. One succeeding major development consisted in an *adat*-ruling that household rights had to be forfeited upon departure from the longhouse. That is, any household which moved out of the longhouse was required to forfeit any and all rights to secondary forest within the longhouse territory. In the spirit of this ruling, any household which announced its intention to move out of the longhouse was also forbidden to sell any of its land-rights.<sup>18</sup>

When this *adat* was first promulgated, the land to which a departed household had held rights reverted to the status, essentially, of primary forest. That is, rights to that land would be given to the household which used it first (e.g., by making a swidden there). With the further passage of time, however, and as land became increasingly scarce and more valuable, this treatment of the rights of departed households led to too many disputes among the longhouse's households. As a result, the longhouse headmen began to take all such rights unto themselves, holding and employing them for personal use. With the still further passage of time, and the increasing valuation of land, the other inhabitants came to resent this privileged action by the headmen. Ultimately, the *adat* was again changed, this time so that the headmen took over, not the land-rights of departed households, but only the administration of these rights. Under the headman's administration, all of the households in the longhouse ideally would farm, in rotation, the forest-sections covered by such rights.

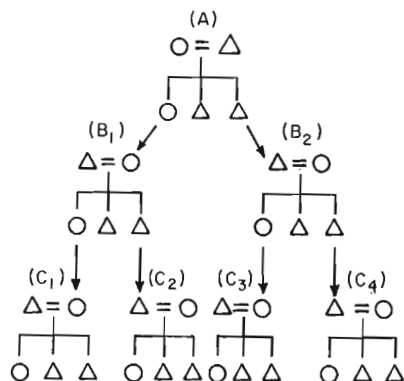
#### Current and Future Developments in Kantu' Land Tenure

The variables discussed above, namely, the increasing value and scarcity of land, assume more importance with the passage of each year, and this is producing further changes in Kantu' land-tenure. One such change concerns hunting rights. Up to the present time, rights to secondary forest have not been interpreted as including exclusive hunting rights. Thus, people have been free to hunt game in secondary forest to which they did not hold rights.<sup>19</sup> This started to change within the past decade. The members of one of the five Kantu' longhouses along the Empanang River have formulated a rule regarding the killing of game in the vicinity of either *singkingyang urang* or *ubi pangan*. The latter term refers to cassava, planted in a swidden, and still thriving in the regrowth to which that swidden has reverted, following the rice harvest. (Cassava plants may thrive and

produce for one or two years thereafter.) *Singkingyang* is a cultigen (spp. *uniden*) that is planted in some swiddens for ritual reasons. *Singkingyang urang* refers to the presence of this plant in swidden regrowth. (This plant may thrive for one to three years after the rice is harvested from the swidden.) If game is slain in regrowth/forest, in the vicinity of either plant, by anyone other than the members of the household which holds rights to that forest, then it must be divided equally with this latter household.<sup>20</sup> By mid-1976, this increase in the scope of land-rights had not spread to any of the four other Kantu' longhouses on the Empanang. It is likely that these latter will soon follow suit, however, if only to redress the current imbalance among the longhouses in hunting and land rights, as the Kantu' did in adopting the Iban recognition of permanent land rights. That is, there are now restrictions on hunting by the inhabitants of these four longhouses, in the secondary forest of the fifth, whereas the inhabitants of this latter longhouse can still hunt in the secondary forest of the former with total freedom.

Potentially more important than this change in hunting rights is a concurrent change in the general devolution of land rights. This change is also related to the increasing pressure on land within the Kantu' territory, in particular to the gradual disappearance of primary forest. By 1976, within the territory of the longhouse Tikul Batu, there remained only 23 separate sections of primary forest (or approximately 80 hectares). The nearly completed replacement of primary forest by secondary forest within the territory has far-reaching implications, because the land tenure system is based on the pioneer cultivation of primary forest. As discussed earlier, a household can establish rights to secondary forest by first clearing the primary forest on that same land. For households which do not have access to primary forest, such rights are difficult to acquire. Rights arising from the clearing of primary forest must usually remain in the household which did the clearing. If this household eventually undergoes partition, between two or more members of a sibling-set, these land rights will be the only property which is not divided among the siblings involved. As the Kantu' say, *Memudai na' tau' depedua'* ("(Rights to) secondary forest cannot be divided"). Rather, they will be shared (*kuntsi*) by the partners in the partition. However, these land rights cannot be further shared with any households created by the partitioning of those households which were themselves created by the partitioning of the original household. The Kantu' note that the sharing of rights to secondary forest is limited to *simpang suti* or "one branch". As illustrated in the following diagram (page 12), rights to land that is first cleared as primary forest by Household A must be shared with Households B<sub>1</sub> and B<sub>2</sub>, created by the partitioning of A among siblings, but these rights cannot be further shared (at least not to the same degree) with any of the households (C<sub>1-4</sub>) created by the partitioning among the sibling sets of B<sub>1</sub> or B<sub>2</sub>.<sup>21</sup>

Given this pattern of devolution of land rights, the exhaustion of primary forest within the longhouse territory will be followed by one development of overriding importance. Assume, for example, that Household A in the diagram is the last generation to clear primary forest. Land rights based on such clearing can then be extended only to the first descending generation, Households B<sub>1</sub> and B<sub>2</sub>, and not to the second descending generation, Households



C<sub>1-4</sub>. These latter households will consequently be landless, this state being mitigated only by land they can obtain through purchase or gift. The Kantu' already have recognized this problem, and there are indications that they are further modifying their system of land tenure to deal with it. Thus, in one or two instances land rights which initially were shared (*bekuntsi*) among two or more households (e.g., by A with B<sub>1</sub> and B<sub>2</sub> in the above diagram), following the partitioning of a single household, have later been divided (*bedua'*) among the households involved, for the explicit purpose of enabling them to be shared (e.g., by household B<sub>1</sub> with C<sub>1</sub> and C<sub>2</sub>) with households produced from a new generation of partitioning. Such divisions will ensure some distribution of land rights among all households, once it is no longer possible to fell primary forest.<sup>22</sup>

#### Summary and Conclusions

Several conclusions can be drawn from the preceding analysis of current and historical developments in the Kantu' system of land tenure. First, it is now clear that ecological factors (*viz.*, the pattern of rainfall) played an important part in this development. This role has been denied on the basis of cases in which the ecological factors are constant between two groups while the system of land tenure is not (or in which the reverse is true), or cases in which the system of land tenure has undergone historical change when the ecological factors have been constant (Dixon 1974; King 1975; Weinstock 1979). With regard to the latter argument, recall that much of the pressure for the development of household rights to secondary forest built up, historically, as the result of changes in critical political, legal and economic factors. Ecological factors also contributed to this development, despite the fact that these factors did not themselves undergo any changes during the period in question. Rather, as changes occurred in the noted legal, economic and political variables, (*viz.*, in the general socio-cultural context), a related change occurred in the relative importance of the ecological factors, which resulted in an increase in their influence on the pattern of land tenure. This change in

the influence of the ecological factors is only comprehensible in the light of, and with an understanding of, the changes in the political, legal and economic factors. That is, these latter changes explain why the pattern of rainfall exerts an influence now that it did not exert historically. This example suggests that historical reconstruction of land tenure systems is as fruitful as some scholars have suspected (Dixon 1974:14), but not as problematic as others have feared (King 1975:15-16). More generally, this example points to the value of diachronic data in analyses of the multi-causality of contemporary, social phenomena.

With regard to instances of non-correlation between ecological factors and the land tenure system: note that this analysis of the Kantu' data shows that the pattern of rainfall became and remains an important determinant of the land tenure system, within a specific socio-economic context. It is likely that it will also be an important determinant in similar contexts in other areas and among other groups. That is, *ceteris paribus*, a pattern of rainfall similar to that of the Kantu' will create pressure for a system of land tenure which is also similar to that of the Kantu' (and the obverse is also true). This theoretical association between rainfall and land tenure is not contradicted by one or more cases in which one of these variables is the same as, while the other variable differs from, the Kantu' case, if other, relevant socio-economic factors also are not constant between the two cases.

In addition to establishing the role of rainfall in the development of Kantu' land tenure, a conclusion can now be drawn as to the nature and direction of this development. There has been some confusion in the literature in regard to the development of "limited" as opposed to "unlimited" land rights, the former purportedly referring to the situation in which permanent rights reside in the longhouse, while household is accorded only temporary use rights; whereas "unlimited" rights refers to the situation in which permanent rights reside in the household, with the longhouse holding at most residual rights. Scholars (*viz.*, Appell, Dixon, King and Weinstock) have debated at some length as to whether increasing population/land pressure will produce limited or unlimited rights (as these are defined above). This debate has suffered from an oversimplification of both the loci of land rights, and of the evolutionary process within which such rights develop or change. For example, in the development of Kantu' land rights, as discussed earlier and as partially summarized in the following table (p. 14), it is apparent that different aspects of these rights were divided between the household and the longhouse, and, further, that the nature of this division varied through time.

The most important conclusion to be drawn from the table is that the historical change in the strength and loci of land rights is non-unilineal. That is, there is no observed tendency (e.g.) for land rights to become increasingly strong and increasingly focused on the household. Instead, the observed pattern of historical changes suggests a certain fluidity in the development of land rights, which in turn is a response to the ever-changing mix of relevant socio/political/economic determinants of land tenure. The significance of this finding is two-fold. First, it is clearly far too simplistic, at least in the Kantu' case, to discuss a

Historical Developments	Strength of Household Rights	Strength of Longhouse Rights
(1) Earliest Oral History	-	+
(2) Limited rights awarded to household which performs <i>mudas</i> offering	+	-
(3) Rights awarded to household which fells primary forest	+	-
(4) Rights taken away from household moving out of longhouse	-	+
(5) Rights of hunting awarded to household owning young secondary forest in which cassava or <i>singkinayang</i> still growing	+	-

Note: The change in sign (+) or (-) from one historical period to the next, indicates a relative strengthening or weakening, respectively, of the rights held by the given jural entity (viz., household or longhouse).

lineal development of more (or less) limited land rights, as a simple function of increasing population/land pressure. Other determinants are also involved, and together they produce much more complex responses in the system of land tenure, over time. The above data are also significant in that they illustrate, not just the fluidity, but more accurately, the responsiveness of the land tenure system. For example, Dixon (1974:12-13) and King (1975:15) respectively questioned the ability of the traditional land tenure systems to be adapted to the introduction of cash-crops, or to the increase in population/land pressure. The Kantu' data indicates that traditional systems are well capable of such adaptation and, further, that this adaptation may be carried out at a relatively conscious level, by the society as a whole.

Notes

1. The author's field study of the Kantu' was carried out between August 1974 and June 1976, under the sponsorship of the Indonesian Institute of Sciences (L.I.P.I.) and with the support of a training grant from the National Institute of General Medical Sciences, and research funds from the Center for Research in International Studies (Stanford University) and the National Science Foundation (Grant #GS-42605). Analysis of the data was

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2. The phrase "land rights" is used in this paper in conformity with usage in the Bornean literature under examination here. However, in the case of the Kantu', among other groups, it might be equally accurate to say that they hold and exercise rights to trees, not land (see Dove 1976).

3. This summary analysis of Kantu' land tenure benefits not only from Freeman's (1970) data on the Iban, but also from Appell's (1971 and n.d.) analyses of that data.

4. It is possible that variation in soils will prove to be as important as variation in rainfall, but the data to substantiate this do not yet exist. Weinstock's (1979) attempt to use the extant, inadequate soil-data, in his effort to refute Appell's initial hypothesis, has been correctly criticized by Burrough (1979) in the most recent contribution to the Bornean debate.

5. This table is compiled from published data for all groups except the Kantu', the figures for which are based on the author's daily measurements of rainfall over a period of 21 months.

6. The rainfall total for the burn-months, for the Kantu', may be unusually high because of exceptionally heavy rains during part of the period in which measurements were made. However, the validity of the author's Kantu' data is supported by the similarity of the Kantu' and the Maloh annual totals, given that both groups live along the northwest rim of the greater Kapuas River valley. In any case, it is clear that the Kantu' typically must deal with more rainfall (even if not 50.9 inches) during their burn-season, compared to the Rungus or Ma'anyan, for example.

7. The author's spot measurements within the Kantu' territory yield average diameters of 24.5 and 12.2 centimeters for single trees in primary and secondary forests, respectively. Given these measurements, it can be calculated that the trunk of the average primary forest tree has a volume (the measure of the tree which is relevant to the ease with which it dries out) which is approximately four times as great as the volume of the average secondary forest tree.

8. The author has data on 18 swiddens burned by the Kantu' longhouse Tikul Batu in 1975. When the data are examined in a two-by-two table, a statistically significant association is found between forest-type and burn-success as shown below:

Percentage of Swidden <90% That Burns:	Swidden Cut Primarily From	
	Primary Forest	Secondary Forest
<90%	4½	½
>90%	4	9

N = 18 swiddens 90% = mean percentage that burned in this sample  
 $\chi^2 = 5.08$  p < .05



9. The association between forest-type (viz., age/size) and the performance of weeding is very strong. This is illustrated in the following table, which analyzes the performance of weeding (*mantun*) in 22 dry-land swiddens made by the inhabitants of the longhouse Tikul Batu during the 1975-76 swidden-year.

		Swidden Cut Primarily From	
		Primary Forest	Secondary Forest
Swidden	No	7½	0
Weeded	Yes	1	13½

N = 22 separate swiddens     $\chi^2 = 18.1$     P .001

10. The relative costs and benefits of the two types of forest are related to the evaluation of fallow-periods. In terms of the difficulty with weeds, a short fallow-period is bad, while in terms of difficulty with the burn, a short fallow-period is good. In neither case is the amount of biomass in the forest a consideration. Weinstock (1979:8-9) suggested that the significant factor in the length of the fallow-period is the amount of biomass in the forest, and that this ceases to be a factor after seven or eight years, because by that time approximately 90 percent of maximum biomass has been attained. Clearly, the amount of biomass is a relevant factor among swidden groups pressured to farm after short fallow-periods (e.g., less than seven or eight years). Thus, if a swidden is made in forest only four to five years of age, in which the biomass is greatly below the maximum, the swidden may for this reason be unsuccessful. Among swidden groups such as the Kantu', who typically farm only after fallow-periods longer than seven to eight years, this question of biomass is, as yet, irrelevant, yet the length of the fallow-period if not irrelevant, as I already have pointed out. Between a fallow-period of ten years and one of 100 years, there may be little difference in the amount of biomass, but there is a difference in the composition of the biomass (viz., ligneous matter versus herbaceous matter) and this is associated with a critical difference in the severity of the weed problem. Similarly, there is little difference in the amount of biomass, between a ten-year and a 100-year fallow; however, there will be a difference in the distribution of this mass. Thus, in primary forest, a given amount of biomass is concentrated in fewer and larger flora than in secondary forest, and this distinction is associated with a critical difference in the severity of the burn-problem.

11. Moreover, even given the added inputs of weeding in secondary forest swiddens, the return (in liters of rice) per work-day is approximately the same in these swiddens as in primary forest swiddens.

12. The relative desirability of farming secondary forest is reflected in the fact that, during the swidden years 1974-75 and 1975-76, 71 percent of the households of Tikul Batu made at least one dry-land secondary forest swidden each year, whereas 69 percent made at least one dry land primary forest swidden each year. The ecological value of secondary forest is here counter-balanced by the desire to establish land rights by felling primary

forest. In the absence of this latter consideration, the percentages of households making at least one primary or secondary forest swidden would be somewhat lower and higher, respectively.

13. In any case, before the Kantu' settled along the Empanang River, they lived in (and practiced the same system of swidden agriculture in) a very similar environment, farther to the east and south, but also within the greater Kapuas River basin, in the vicinity of the current river port of Sanggau.

14. This is not to say that the current land tenure system of the Kantu' was simply copied from the Iban. It must be remembered that the Kantu' also speak of other factors which contributed to their recognition of household rights to secondary forest, as well as of factors which militated against this recognition prior to their making peace with the Iban. Moreover, it is unclear when the Iban themselves first began to recognize such rights. It is possible that they also did not recognize such rights prior to the peace-making, for reasons similar to those mentioned for the Kantu', and that they modified their system of land tenure at approximately the same time as the Kantu', and for similar reasons, in which case it is exceedingly problematic to conclude that one group "copied" the other.

15. With the cessation of warfare, of course, there was a decrease in warfare-related fatalities. There may also have been an indirect effect on population growth. Endemic warfare exacted an economic toll on the Kantu', by making the farming of swiddens more costly (see Dove 1977). With the cessation of warfare and the elimination of these added costs, the Kantu' level of subsistence increased. Such an increase would have contributed (cet.par.) to population increases.

16. This carrying-capacity is derived from the standard formula for calculating the critical population size in any given human territory. This formula is (from Brush 1975:801):

$$\begin{aligned}
 P_s &= \frac{D \times A}{C \times (A + B)} \\
 &= \frac{(750 \text{ ha.}) \times 1}{(.6 \text{ ha.}) \times (1+7)} \\
 &= 156 \text{ persons}
 \end{aligned}$$

Where: P<sub>s</sub> = critical population size  
 A = cultivation period  
 B = fallow period  
 C = amount of land needed per capita to provide average subsistence  
 D = total amount of arable land available

17. As the population of the territory approaches or passes the 156-person mark, it is possible that the Kantu' will relieve the increasing population/land pressure by intensifying some aspects of their agricultural system, so as to reduce the per capita demand for land. If this occurred, the actual carrying capacity of the territory, defined as the number of people which it can support without resulting in environmental degradation, might be much greater than 15.6 persons per square kilometer. This latter

figure is problematic, given Pelzer's (1945:23) assertion that the carrying capacity under swidden agriculture averages 50 persons per square kilometer. On the other hand, perhaps it is Pelzer's figure that should be regarded as problematic.

18. Moreover, any household which began to sell off substantial amounts of its land rights would quickly be interrogated by the other longhouse members, as to whether or not it planned to move. In the event of an affirmative answer, any further sales would be forbidden.

19. This "freedom" to hunt may be limited in one respect, however. A *pantang jani* ("pig proscription") was formerly observed by all Kantu' longhouses, and is still observed in many of them. According to this proscription, no longhouse member can kill a wild-pig or deer within the longhouse territory, without dividing the animal up amongst all of the households of the longhouse.

20. A rationale for such a division is implicit in the Kantu' philosophy of cassava-cultivation. The Kantu' plant cassava because it is an important relish, and they regret losses to animal pests (usually wild-pigs). This fact notwithstanding, they take few if any precautions (e.g., fencing) to protect their cassava from such predation. Indeed, it often appears that the pigs are permitted access to the cassava, so that they can be more easily hunted by the Kantu' (and that this hunting is thus one of the reasons for planting the cassava in the first place). At least one-half of the wild pigs taken by the Kantu' are taken (with trap, spear, or fire-arm) in or near stands of cassava, in past or present swiddens. The promulgation of *adat*, in which game killed near growing cassava is divided with the owner of that cassava, constitutes cultural recognition of this link between hunting and agriculture, in cassava-cultivation.

21. Note that this diagram analyzes only those children of each household who marry nato-locally. Those children who marry outside of the household (and they comprise 50 percent of the total in the average household) relinquish, thereby, all or most of their share in the household's land rights, and they are not included in this diagram.

22. This division of land rights militates against the concentration of these rights in just a few households. It is also likely that the exhaustion of primary forest will be followed by some further modification of traditional land tenure, having the opposite effect, namely, that of spreading rights to given sections of land among as many households as possible. In a situation of increasing population/land pressure, it is desirable to make the optimal use of the available land, and this is more easily accomplished if rights to given sections of land are held by many households, as opposed to one or two households. Note that this problem of the distribution of land rights is distinct from the problem of the amount of land available. Both problems may arise from increasing population/land pressure. The shortening of fallows, which King (1975:15) anticipates as a response to this pressure, "addresses" the problem of too little land, but such measures do not address the problem of a non-optimal distribution of (rights to) the available land.

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#### THROUGH MANY SUBCULTURES:

#### A VIEW OF THE SUBCULTURAL UNITS IN A TYPICAL BRUNEI MALAY LIFE CYCLE

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One approach to the study of the procession of a human life in a given culture is to examine the "stages" or "progress" of a "typical" individual through the life cycle. Another approach is to examine the subcultures to which the individual belongs in the course of his or her life. The following examines these subcultures for a "typical" Brunei Malay of a Temburong District riverine village. The subcultures are then set briefly in a larger temporal and areal perspective.

At birth the individual enters the subculture of women and infants in the household. Until able to walk and talk, the individual will remain here as a dependant upon his or her mother. Once able to speak comprehensibly, at around two or three years of age, the individual enters the subculture of children. Here, the leaders and mentors are the older children in the play group. These are often siblings; otherwise, they will probably be cousins. Children are expected to participate in the subculture of children and not that of adults. Children are neither conversational companions nor play partners for adults. Essentially, children should be seen and not heard. If adults are talking, the child should remain silent and unobtrusive. Within the child subculture the

individual will play and begin to learn the basic life survival skills of housework, farming (if the family are agriculturalists), gathering, trapping, and fishing. Before fire-arms were prohibited, the boys also began to learn hunting. In the past the children remained in the child subculture until they began to show signs of impending physical maturity, at which times the adults began to groom them for maturity. They then became older children, authoritative to but removed from, the child subculture. Older children began to take over the basic household and economic occupations; boys might go outside to work, perhaps on the rubber estate. It was a time of pride and contentment that one was becoming a valued member of society. Tensions entered as one became appreciative of economic and social realities and hardships, but the time was no more tense than adulthood. At marriage the individual entered the status of an adult. This identification remains today, an unmarried person of adult or even old age is in certain respects considered not a full adult; to put it differently, those who never marry do not have their adulthood fulfilled. However, today a new element has been entered into the maturational process: this is formal schooling, provided free through all levels.

Initially, all children attend the same village school and pass through the same grades. Since they are Moslem, the Malay children attend religious school in the afternoons during grades three to six. They have attended secular school in the morning. Within the schooling subset there are many divisions. The most obvious one is that of division by grade, though in some cases family ties may override this. Within even the same grade a division between "good students," who get good marks, and "not good students," who do not get good marks, becomes apparent. The groups may bait and tease each other. A child whose parents are more well-to-do, or have a position of power in the village, may be singled out for ragging. If the child has had some unusually fortunate experience, such as going on the pilgrimage, he or she may be the victim of jealousy, which for the boys can take the form of attacking the young pilgrim to steal his hat. The child who is a good student from a well-off (and, thus, somewhat socially isolated) family may experience considerable loneliness; this strengthens his or her perception of the world outside the family as very hostile. Fourth grade brings a subdivision into childhood culture which may have lifetime repercussions. At this age the children take examinations to determine whether they will attend the religious (Arabic medium) school or the English medium school, both prestigious, or remain in the Malay stream, which is considered less prestigious. The final chance at passing these entrance exams comes in the fifth grade; but those attending fifth grade in the village school are usually perceived as being unable to do well academically, though success in the second try at the exams can erase this stigma to a large extent. In middle and upper school the paths diverge still further. Some students will be bright, study hard and diligently, have the family help needed for supplemental study (often by correspondence) to pass the higher level exams, and thus go on successfully to upper middle school. Some few from the Malay, English and Arabic streams will from there pass their "A" level exams and go on to attend university. A few from the Malay stream will successfully switch into English medium university education and thus can attain the highest prestige levels.

Some middle school students will not make the academic grade and will go to vocational schools. Though the vocational training available is excellent, and the future income opportunities with it good, it is perceived as a "non-prestige" track and thus not held in high esteem. A number of middle school students will attend normal school for their upper level schooling. This assures them of a post--teacher--which is held in respect by the community at large. Religious school graduates who do not go on to university in Egypt are also held in respect, but may have some trouble finding jobs. Of course, some students simply drop out or fail along the way. Formerly, they returned to farming or did menial labor, but there now seems to be a "crime" career opening up for them. Many females are pulled out of school at an early age (around 14) to help with child tending and soon to be married off. The theory is that women do not need to earn an income, their husbands will. But some parents say that things are not the same as in the past, and insist that their daughters receive training that will let them support themselves should the need arise.

Although some married adults attend school, either through correspondence and passing examinations or through going overseas for training, the general exodus from childhood to adulthood is the marriage which follows relatively soon (within two years) upon the completion of formal schooling and thus departure from the "schooling" subculture.

The individual thus enters the subculture of "married householder" and so becomes adult. But full social status is attained only upon having children, be they borne or adopted. This householder status will remain for the rest of one's life, though with obvious differences if divorce (rare) or widower or widowhood occur. The concerns here are with family and children, with education and weddings, with the ins-and-outs of daily living. For most women this will remain their only concern; and a fulltime one it is. But many women today also take jobs outside the home, largely in clerking, secretarial, or lower ranks; relatively few have a "career" and even those often terminate or diminish with the family responsibilities of parenthood. But the existence of extended families means that women often have alternate child-care arrangements available in the home.

The "job" occupation taken up with the completion of formal schooling sets the pattern for the remainder of the economic and social individual's life. A farmer will always remain a farmer, as will a fisherman, a merchant, a police or military professional. Likewise, a teacher, a clerk, a religious teacher/official, or an aspiring administrator/manager will be set upon the path. Though it is not unheard of for a government employee on the way up in the hierarchy to change departments, the switch is relatively uncommon. Someone employed, at whatever level, by the broadcasting branch is likely to serve out his or her entire career there. Government jobs are considered secure and prestigious, and the competition for them is intense. Jobs in the commercial sector exist, but are considered less secure and less prestigious. Upon employment, the individual becomes a member of the subculture of his or her place and organ of employment, and his or her level of employment. Thus, the officers, clerks, and drivers may take morning tea at different times and in different places.

For the village individual employment may mean remaining in the village, as for farmers, or working and possibly moving to the district capital, or relocation to the national capital, Bandar Seri Begawan, where most of the salaried jobs are. The individual thus becomes a member of the subculture of the residential locale. This will be cross-cut in varying degrees by family ties, "keeping up with the Joneses," and the expected attributes of one in a given occupation. Formerly, clusters of related families lived together, as they still do in the Water Village where housing groupings contain large extended families, and as they still do in most villages. But the development of housing suburbs for the rising elites and of flats for those in various government branches are to some extent breaking up the traditional pattern. Except for the relatively few who rise to considerable power and position, and/or riches, the sub-cultural occupational identification and orientation remains the same throughout working life.

When a man (rarely a woman) retires on pension, when the children have all grown and been married, the individual begins to identify as an "old person" and a member of the old people's subculture. Physically this will manifest itself as whitened hair and wrinkles on the face. In behavioral terms it will mean that one can behave slightly less circumspectly than a younger person would have to. One can voice one's opinion directly and not be thought brash, though even here there are limits.

As individual becomes very old, as one's contemporaries die off, as the weight of years presses more strongly, the individual becomes a member of the very old subculture. Here even outright occasional lapses from propriety are put down to old age. But senile behavior is recognized as such and a senile individual is considered as a child in many respects. A senile person often knows no shame, and must be guarded and tended much as a child. But there is a difference; the child is tended to bring it to the maturity needed for taking a place within the child group, while the oldster is tended "to await the time," to wait for death.

Throughout life, from the moment of conception to death and beyond, the individual is a Moslem. Here, too, there are cultural subdivisions. A child is not responsible as an adult Moslem until the beginnings of maturity, which is considered to be 12 years of age. Around this time the males are circumcised as their formal marking. Now the individual should pray regularly the five daily prayers, and the males should become regular in attendance at Friday mosque. From this age on men will pray at weddings, funerals, burial services, and other special occasions. Here the male becomes a member of the local mosque group. In the capital this may be a rather anonymous membership at the large central mosque, but in all smaller localities, including districts within the city, all men know who are regular about mosque and observances, and who are not. Women, too, should be faithful in the five daily prayers, though they rarely attend mosque; but it is recognized that their household duties will often interfere with formal observances, as will their monthly periods during which they may not fast, pray, nor touch the Koran. But the traditional view is that Islam is lighter for women because such interferences with formal observances are the Will of Allah, and a woman may enter heaven through many gates. Those who make the pilgrimage to Mecca are a special subculture recognized as

particularly devout; it is expected that they will continue to manifest their fervor of devotion throughout their lives. In each locality it is known who the outstanding Koran readers are, and who are the true religious leaders. There is a recognized cultural division between "tag-alongs" and the devout. It is also recognized that some become more devout as they grow older. A man who slaughters large animals (cows, water buffalo) must be especially devout and regular in his observances, because the Lord does not like anyone lacking in devotion to take such a large life. For some individuals the primary orientation, after the family, will be toward religious rather than secular concerns, for some just the opposite. Each will have separate standards of high attainment. But ideally, all strive for both, that is, to do well in supporting and making a good name for the family, and to be a very good Moslem. Thus, within the Moslem identification and reality, there are the subcultures of the follow-alongs and the fervent, of pilgrims and of local mosque groups.

But subcultural identification does not end even with death. For then one becomes an ancestor. Most ancestors are forgotten after about five generations. But in the royal line, particularly that of direct descent to the throne and the highest hereditary positions, the lineage is remembered considerably further back. Nor, in a sense, does subcultural identification begin with conception. For in the sense that they are both not "in this world," the ancestors and the as-yet-to-be-born are both in the subculture of otherworldly beings. And so the cycle of life past and life present continues.

The details of living daily life continue and will change with time. But by examining the subcultures through which an individual passes in a lifetime, temporal and areal comparisons can be made. Thus, in Brunei Malay culture, 300 years ago the subcultures through which an individual passes were probably the same as those of today, though the actuality of their experience would be much different. The only major difference would be in the "schooling" subculture, which in a formal sense was limited to only a few males. Some of the material encompassed in modern formal schooling (e.g., religious instruction) was once done in the home or by local teachers on a fairly informal basis. Indeed, the development of the "schooling" subculture as a major factor and as applied to all Brunei Malays is essentially a post-World War II event.

Thus, analysis of subcultures experienced by an individual is a useful tool for examining culture change. It can also serve in cross-cultural comparison to identify areal patterns. A century ago, headhunting was a major interest of many inland Bornean tribes. For Murut, Iban, Kayan, and others, males in the prime of life were part of headhunting groups and their subculture. Brunei Malay men never headhunted, but they might have been part of warring or overseas trading expeditions. The commonality was "male adventuring" subculture; the modern equivalent is perhaps sports and motor mania. Brunei Malays are Moslems, as are Kadayans, Bajaus and some other groups; traditional Muruts and Iban are not. Otherwise, all of these groups seem to pass through the same subcultures within an individual lifetime, suggesting a significant pan-Bornean pattern. The approach used here can raise significant questions when applied more globally, comparing

for example, the traditional Brunei Malay, Cantonese Chinese, and Tamil lifetime subcultures. Delineation and analysis of the various subcultures through which an individual passes in a lifetime thus opens up interesting new avenues of study.

B R I E F      C O M M U N I C A T I O N S

Brunei Revisited

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In early September, 1978, I had the pleasure of spending several days in Brunei at the end of Ramadan.

Like everyone in recent decades who revisits Brunei after a period away, I was struck by the abundant signs of physical development. All, or virtually all, of Kampong Ayer seemed to have electricity, and the holiday lights were perhaps more colorful than ever. One of the first things I did in Brunei was to look over where the house that I lived in had stood. To my puzzlement, nothing looked specifically familiar. Later I discovered that almost every house that formerly stood on the edge of the village was now gone. Although Kampong Ayer looks incredibly permanent, this is apparently the result of a continuous and rather rapid process of renewal.

There was not only television in 1978, but it was color television. I saw a program on ethnic arts which featured dances from the Belait District. The dancing and music were good, as was the staging. I wondered if TV might actually give new life to the arts of Brunei. I am sure that Brunei's neighbors must have been impressed and pleased by the service Brunei TV provided them.

I was also struck by the signs of success of Malayization. In shops and hotels I heard much more Malay spoken than in 1968.

There was much more private commercial and productive enterprise in 1978 than had been the case a decade earlier. Some of it was on a substantial scale, too. Although petroleum is still the overwhelming mainstay of the economy, the signs of diversification seemed healthy, indeed. On the other hand, there was a slight increase in the numbers of young men lounging about the streets--possibly a sign of unemployment.

There seemed to be more expatriates in the capital, but the population has swelled considerably, and I am not sure that the proportion of expatriates was greater in 1978 than in 1968. Whatever the case, the rapid decline in expatriates in Brunei after 1959 probably had levelled off by 1968.

Both in Brunei and in Singapore, I was told that there had been a considerable strengthening of ties between those two countries. For example, Brunei

investments in Singapore are substantial, and Singapore, I was told, gets jungle training for its military in Brunei.

As those who read the regional newspapers already know, relations between Brunei and its Malaysian neighbors seem much improved in recent years. I for one never encountered such popular anti-Malaysian sentiment in Brunei; it is encouraging to see the development now of official links to match popular sentiment.

Although it was nothing I observed myself, I was told quite reliably that the distinction between Bruneis and Kedayans is disappearing in the younger generation. In part this may reflect a government policy to play down the distinction, but other factors--education, urbanization, changing job possibilities--are surely involved, too.

The Brunei Museum, now several years in its magnificent new building at Kota Batu, has grown phenomenally. Its collections are larger and more varied, and very tastefully displayed. The staff has grown impressively in its expertise and confidence. Fascinating new discoveries have been made by Museum staff cataloguing tombstones in Brunei, and an ambitious Kampong Ayer survey has been underway for some time. A considerable selection of government publications, in addition to those put out by the Museum, are for sale at the Museum. Of course, I am prejudiced, but I believe the Brunei Museum Journal has become the finest publication of its kind in Borneo, and in much of Southeast Asia.

In 1968, when I was about to leave Brunei, Allen Maxwell had already arrived, and Linda Kimball followed shortly thereafter. I regret to say that that sudden spurt of social scientific research by outsiders in Brunei has not continued. While there is no official policy banning such research, the government has been decidedly reluctant to approve whatever such projects as may have sought approval. On the other hand, a number of short-term projects in various disciplines have been approved over the years.

The Language and Literature Bureau has not physically grown much since 1968, but its activities and services have. I found it to be a very busy place in 1978, with streams of people using its library, for example. The Bureau's publication list is very extensive, and many of its articles or books by Brunei authors are of a very high quality. I for one can never think of the Bureau without thinking of its recently retired Director. But I understand that he still takes great interest in the Bureau's affairs. Judging by his output so far, the new Director has a good start on matching his predecessor's impressive reputation for prolific writings on Brunei.

Bruneis that I spoke to had a calm and generally pleased attitude toward the coming of full independence in 1983. Most people expected no sudden or sweeping changes either then or immediately thereafter. Similarly, I could see relatively little political change since 1968. This is not to say there has been none. There was, for example, a growing awareness of the future importance of Brunei military figures, many more young and educated Bruneis have important positions in government, and some of the old guard who held their positions on traditional grounds are retiring and not being replaced.

On the whole, the past decade has gone well for Brunei. In most respects the immediate future poses no serious problem.



A Headhunter Scare in  
A Simunul Bajau Village in Sandakan, 1979

From Supriya Bhar  
Graduate Student  
Department of Anthropology and Sociology  
University of Malaya

Headhunters in the past were a reality for the Bajaus in Sandakan Bay. Headhunters attacked the village of Timbang in Sandakan Bay in 1878 (Warren 1972:309). There is no record of headhunters ever having struck again in the area, but the memory and fear of headhunters has remained alive for a hundred years.

The British North Borneo Herald on July 16, 1910, carried this item:

. . . a village within a mile of the Government Offices, a village bordering a road regularly patrolled by police, is living in a state of panic, every door being bolted and barred, and nobody venturing out after sunset. And the reason? The Public Works Department is constructing a new mole for the use of boats landing from men-of-war and G.S.Y. Petrel, and the Government is credited with having issued orders for a human head to be taken and buried in it!! Having approached the Superintendent of Public Works with a note book to inquire into the origin of the story, we were curtly informed that he proposed to put a head on to the mole, but it would be a wooden one.

The same kind of panic had set in a Simunul Bajau village in Sandakan in February, 1979. It started with the denial of a headhunter rumor in Kota Kinabalu by the Police Commissioner.

The Daily Express of 14th February, 1979, reported a statement by the Commissioner of Police saying that rumor mongering was a punishable offense. This warning was issued in the wake of rumors in the town that a headhunter had been roaming the streets hunting the heads of young children, especially girls. To discount the rumors, the Commissioner of Police revealed that the police had investigated a report of headless bodies in sacks.

. . . The police party did in fact find the sacks as reported. However, when police opened the sacks they found chicken legs in one and buffalo skin in the other.

The existence of headhunters being denied in Kota Kinabalu, it was rumored that the headhunters had travelled to Sandakan. On the 20th of February, 1979, children from the local primary school came home with a list of car numbers. They believed that these cars belonged to the headhunters, the "Dayak", and they were to avoid these cars.

On the 15th of March, 1979, that is, nearly a month later, the "Dayak" scare was a constant topic in village shop conversation. The farewell

greetings in the evening changed from the usual "Go well" and "Take care" to "Be careful of the headhunters (Dayak)." Women returned home early from evening functions in the village even when their homes were just one *jambatan* away. Going in taxis alone in the evening was interpreted as an invitation to disaster. "Dayak" stories abounded.

It was reported that a Sandakan Chinese newspaper had told about a pregnant woman who was found headless with her baby gone. This "dayak" scare had swept the village before. An informant related how in the early 1950s it was so strong that it resulted in her parents taking her out of school after only two years of primary schooling.

The headhunters of Sandakan were believed to take the heads to strengthen the foundation of multi-storeyed buildings. As there were a number of multi-storeyed buildings going up, there was therefore a demand for human heads. The price supposedly ranged from M\$ 1,000 upwards.

The heads preferred were those of Muslims, for the Muslims have "a lot of oil and their blood is sweet." Among the Muslims, pregnant women, especially at six months, are preferred, again because their skin has "a lot of oil." If persons in these categories are not available, the headhunters would take other kinds of heads.

It was repeatedly stated that the headhunter could be of any community group, even an European.

Nobody from this village has even been a victim of a headhunter, but an informant related that about 50 years ago, there was a man from the village who was a *mandur dayak*. He organized the taking of heads, though he did not take the heads himself--this fine distinction being of importance. As the informant related the account:

My mother told me about it. It was when she was still a maiden--about 50 years ago. There was a 'Sug man . . . and he lived here. He would tell all the village people, "Keep your children indoors after 6 p.m. We are going to walk tonight."

One day there was a person from Simunul Island seeing sugarcane, tapioca, and bananas. This *mandur dayak*'s wife wanted to buy something and went to get the money. She had kept it in the mat. But when she unrolled the mat, instead of money, there were large blood clots.

"Where is the money?" she asked her husband.

"In the mattress," he replied. But in the mattress also there was only blood.

"In the chest," he then said. She opened it and there was no money, only blood.

This was God's sign that the *mandur dayak* was doing something wrong. Everybody in the village came to see the blood. And the man cried

and cried. He repented having taken many lives and swore that he would never do it again.

The main difference between the older headhunters and the present ones was seen in the fact that today they use gas to disable the person before taking the head. For a man, it is just the head that is taken; for a woman, the head and a diagonal section across one breast is reported to be taken.

Between the 19th and 25th of March, 1979, three people at different parts of the village and on different nights "sighted" the headhunters, walking under the house. The village houses are built over the sea on wooden piling and at low tide, it is possible to walk under the houses. One of the women who sighted a group of headhunters described them as bald, masked, and wielding long knives called *barong*. One woman in the adjoining village was said to have jumped out of a taxi at 4 p.m., for, she said, the taximan had tried to gas her. She was later reported to have been taken to the hospital and treated for bruises.

Not everybody believed in the existence of the headhunters. One woman, about 60 years old, a Hajjah, said,

The families at the back shouted, "Dayak, Dayak." Maybe it was only a dog.

Another married woman in her 20s said,

I don't know if there are any headhunters or not. I haven't seen any as yet. But I am afraid they might be under my bed.

Together with this kind of skepticism, there was also the feeling that precautions should be taken to protect the children. So the bachelors made ready sharpened bamboo stakes to use as spears in any eventuality. And in the bedroom of one house, there was a six-foot long spear which the man of the house had had specially made in case the headhunters should appear. For a few nights that week, men and women kept watch for the major part of the night.

The headhunter rumors and scare had now been in the *kampung* for over a month. The village was so full of talk of the headhunters that a situation nearing panic had resulted. On the 18th of March, 1979, the headman of the village issued a notice to all the residents of the village stating that he, together with the other headmen and local leaders of Sandakan, had met with the Officer Commanding Police Division (O.C.P.D.) in regard to the headhunters rumors. The O.C.P.D. had emphasized that headhunters did not exist. He also added that the police would take strong action against anybody spreading rumors and disturbing the peace.

And so the headhunter rumor faded away.

*Bibliography:* British North Borneo Herald, June 16, 1910, p. 108; Daily Express, Kota Kinabalu, February 14, 1979, p. 1:6; Matajang B.K.K. Hj. Puyun, "Khabar-Khabar Angin Pengait?" mimeographed notice, March 28, 1979; Warren, J. F., September, 1972, "The North Borneo Chartered Company's Administration of the Bajau, 1878-1909," Sabah Society Journal, V(4):288-351.

Corrections and Additions

Dr. Patau Rubis, Acting Deputy Director of Medical Services (Health), Sarawak, notes an obvious error in Volume 11, Number 1, page 4, and writes that

Key (2) should read "Bidayuh", formerly known as Land Dayak, while Key (3) should read "Baleh Iban."

Regarding land tenure among the Bidayuh, Dr. Rubis writes:

The reasons for practising Land Tenure in manner as described are many. I do not believe rainfall has anything to do with it though. My people value their land for its worth. Under such tenure a diligent family will have pieces of land which they can allow to lie fallow longer, as the longer the fallow the better the yield as the land will be more fertile, have less undergrowth, and there will be less weeds to worry about. Furthermore, the bigger one's land the higher the social status. A stepson or stranger is nearly always considered as landless unless he is diligent enough and strong enough to clear and fell a primary jungle for his share. (Otherwise) nobody of high status would ever want to marry his daughter to such a person.

The Editor is grateful to Dr. Rubis for bringing the error to his attention, and for the additional information on land tenure, the subject of Michael Dove's Research Note in this issue.

Mrs. M. S. Fitter, Editor of *Oryx*, notes that in the same issue, a passage reprinted from that journal (cf. *Bulletin* 11(1):21-23) does not identify the author, Robert Olivier, nor state that the passage is an extract from the report of the Survival Service Commission's Asian Elephant Group. The Editor appreciates Mrs. Fitter suggesting inclusion of the author's name and source of the extract, and regrets their omission.

NEWS AND ANNOUNCEMENTS

Professor James C. Jackson  
1936 - 1979

We were saddened to learn of the death in February, 1979, of Professor James C. Jackson, after a tragically brief tenure of the Chair of Modern Asian Studies at Griffith University, Brisbane, Australia. Professor Jackson was born in 1936 in Leeds. He took his first degree at the University of Sheffield, his M.A. degree at the University of Leicester, and his Ph.D. degree in Geography at the University of Malaya, Kuala Lumpur. He was a lecturer in the Geography Department of the latter university in 1961-66, before joining the University of Hull, England, initially as a Leverhulme Fellow in Commonwealth Studies and subsequently as a Senior Lecturer in South-East Asian Geography. He left Hull after ten years, in the summer of 1976, to take up his post in Griffith University.

Professor Jackson was a thorough and dedicated researcher, with a broad vision of his subject. His writing was lucid, balanced and concise, and he was a constructive and good-humoured colleague in his daily academic life. His studies into nineteenth century plantation agriculture in Malaya, into the historical and economic geography of Sarawak, and into Chinese gold mining in West Kalimantan had already established his scholarly reputation. Had he lived he would have expanded his work into related fields, such as patterns of urban settlement and marketing in Malaysia, in an equally dedicated and thorough manner. His capacity to conceive, promote, and administer large university projects, perhaps given full scope only after he went to Australia, was already apparent to his friends and colleagues. Our deepest sympathy is extended to Professor Jackson's widow, Suk Han, and to their three children. (D. K. Bassett, Ph.D., Director, Centre for South-East Asian Studies, University of Hull)

Professor Johannes Nicolaisen

It is with deep regret that we report the death of Professor Johannes Nicolaisen. We hope to include an obituary in the next issue of the Bulletin. Our sincere and heart-felt sympathy is extended to Mrs. Ida Nicolaisen.

B O R N E O   N E W S

Regional News

MICHAEL LEIGH is in Indonesia where he is working on a five-year social science development program. His mailing address is:  
P. O. Box 2030  
Jakarta, Indonesia

Indonesia has signed a \$228 million contract for the delivery of three Transall heavy transport planes from the French-West German Transall Consortium.

Indonesia will use the planes in its transmigration program, under which some 2.5 million people from the overpopulated island of Java are scheduled to be resettled in less crowded islands of the archipelago. This program is part of the current Five-Year Development Plan, which ends in March, 1984. (Indonesia Development News 3(2):7, October 1979)

HERBERT L. WHITTIER, on two-year assignment in Indonesia, is Associate Director of the MUCIA-USAID-INDONESIA Higher Education Development Projects. He currently is posted at the University of Airlangga in Surabaya although his duties include working with all of the 42 State Universities throughout Indonesia. The projects are focused primarily on the areas of manpower and staff development, institution building and development, and promoting development in the social sciences and related areas. During their stay in Indonesia, Dr. Whittier and PAT WHITTIER plan at least two trips to Kalimantan to visit areas of previous field research. He is best contacted through the projects Jakarta Office at  
Jl. Imam Bonjol 25  
Tromolpos 3285/JKT  
Jakarta, Indonesia

Sarawak News

THE ASIA FOUNDATION has made a grant of US\$ 2,195. to the SARAWAK FEDERATION OF WOMEN'S INSTITUTES, "to improve the welfare of rural women and urban poor through the establishment of a demonstration nutritional-rehabilitation center in the Tebakang sub-district of Serian District" (The President's Review, Annual Report, 1978, p. 46).

ROBERT AND PENNY AUSTIN will be in Oxford next year, where Robert will be an exchange professor at Oxford Polytechnic. The Austins indicate that they would be pleased to see "Borneo people passing through (August, 1980 - May, 1981) . . . and can provide accommodations for short periods . . . given a little notice."

IAN BAILLIE, who was in Sarawak in 1960-61 as a V.S.O. teacher in Kanowit, 1968-72 as a soil surveyor in the Forest Department, Kuching, and in 1978 with the Royal Geographical Society Mulu Expedition, is a member of the Department of Geography, The Polytechnic of North London, 383 Holloway Road, London N7.

The Asian Development Bank has made a loan of \$53.8 million to finance a part of the foreign exchange cost of the BINTULU DEEPWATER PORT, the first deepwater port in East Malaysia. "The port is being established to facilitate exports of agricultural and industrial projects, including liquefied natural gas (LNG) from the Bintulu region. The Islamic Development Bank and Japan are providing co-financing amounting to \$10.2 million and \$58.2 million, respectively; the remaining foreign exchange costs will be met by the Government" (ADB Quarterly Review, January 1980, pages 4-5).

The Asian Development Bank also has made a loan of \$25.4 million "for rehabilitation and construction of 10 drainage systems located in four States of Peninsular Malaysia and Sarawak in East Malaysia. The Project also includes the provision of consulting services, procurement of operation and maintenance equipment and establishment of a coconut seeds multiplication station in Sarawak" (ibid., page 5).

PETER MULOK KEDIT went on study leave at the end of September, 1979, and will resume his position as Ethnologist, Sarawak Museum, by the end of 1981. His current address is:  
Department of Anthropology  
University of Sydney  
New South Wales  
Australia, N.S.W. 2006

JAYL LANGUB will complete his undergraduate program at the end of this summer. Upon completion of his program he will return to Sarawak and continue his work in the civil service. Until his return, his address is:  
3583 Durocher Street  
Apt. 12  
Montreal, PQ  
Canada H2X 2E7

REX MARSHALL of Brisbane, Australia, has just completed a two-year volunteer term with the Agriculture Department of Sarawak.

During his sabbatical, JEROME ROUSSEAU is carrying out a reanalysis of publications about central Borneo, especially Dutch works, and for this purpose spent six months in Leiden.

BISHOP GALVIN's book, On the Banks of the Baram, may be obtained from Father de Vries, Catholic Mission, P. O. Box 108, Miri, Sarawak, Malaysia, for M\$ 10.

BOOK REVIEWS, ABSTRACTS  
& BIBLIOGRAPHY

W. F. Schneeberger. Contributions to the Ethnology of Central Northeast Borneo, Berne, *Studia Ethnologica Bernensia* 2, 1979.

Given the fact that Borneo has been traveled widely and research done by many geographers and anthropologists it is quite astonishing to learn that next to no ethnological information is available on its central Northeastern area. This holds especially true of the Indonesian part of the area. Only from the geographical and morphological point of view was this area known through a contribution by the present author, published in 1945. To this are now added the contributions to the ethnology of this area. The relevant data for this report were collected during extensive travels in 1939 throughout Northeastern Kalimantan, southern Sarawak and southwestern Sabah.

Using a few cultural criteria (house types, linguistic characteristics, burial customs, ceremonies while receiving guests) Dr. Schneeberger arrives at a rather clear distinction between the two major ethnic groups in this region, the Murut and the Kelabit. Agricultural techniques are dealt with and their relation is shown to ceremonies and megalithic monuments. These, so far not mentioned in the literature, are listed and described in detail, thus adding considerable information on the megalithic complex of Southeast Asia. There are further sections on Kelabit salt-making and its relation to corresponding Indonesian techniques. The final chapter is devoted to a reconstruction of the Kelabit culture complex.

Dr. Schneeberger's contribution not only fills a major gap in our ethnological knowledge about Borneo as far as "basic facts" are concerned. Through his interpretations he also stimulates the discussion about the meaning of specific ceremonies as well as about general Indonesian/Malaysian culture and culture history. The study is interesting for cultural/social anthropologists, linguists, archaeologists, specialists in Southeast Asia, and libraries.

Rachael Grossman and Lenny Siegel. "Weyerhauser in Indonesia," Pacific Research 9(1):1-12, November-December 1977.

The activities of the Weyerhauser company in Indonesia are analyzed and criticized in this article. Founded in 1900, Weyerhauser is now the largest timber company in the U.S.; its 1977 sales exceeded \$3 billion. The company became active in Indonesia in 1971 and now employs 13,000 workers there. It has developed a 1.5 million acre concession north of

Balikpapan and south of the Mahakam River in East Kalimantan. The Company's Indonesian subsidiary is the International Timber Corporation Indonesia (ITCI), and it also controls the Indonesian Regional Development Agency, a subsidiary of Tri Usaha Bhakti, and a private army-controlled holding company. In 1977 ITCI exported logs and other forestry products for \$66 million.

Colin P. Groves. "Wildlife Reserves in Indonesia," Indonesia Circle, 14:13-20, November, 1977.

The smallest of Indonesia's 170 wildlife reserves are found in densely-populated Java, the largest in Sumatra and Kalimantan. The oldest (1921) and most valuable reserve is Ujung Kulon. It occupies the whole of the western most peninsula of Java and is the only known habitat of the Javanese Rhinoceros (*Rhinoceros sondaicus*). The area also accommodates the Javanese Banteng, or wild ox (*Bos javanicus*) but the tiger can only be found in the Beteri reserve in East Java. The author presents a list of reserves in Bali, Sulawesi, Sumatra and Kalimantan, and enumerates the fauna found in each. He concludes by recommending that the most interesting reserves--Ujung Kulon, Baluran, Komodo and Lore Kalamanta--be transformed into Indonesia's first National Parks.

R. G. Inger. "Abundances of Amphibians and Reptiles in Tropical Forests of South-east Asia," Transactions of the Sixth Aberdeen-Hull Symposium on Malesian Ecology, edited by Adrian G. Marshall, University of Hull, Department of Geography, Miscellaneous Series No. 22, page 7, 1979.

Abundances of frogs and lizards are analyzed for eight forested environments from Sarawak to north-eastern Thailand. Frogs and arboreal lizards are more abundant in Sarawak and Malayan environments than in Thai forests, whereas terrestrial lizards are more abundant in Thailand. Riparian environments in forests of Sarawak support larger numbers of frogs than do those of Thai forests. Climatic differences operating on general physiological characteristics of the groups are sufficient to explain differences in relative abundances.

D. Labang and Lord Medway. "Preliminary Assessments of the Diversity and Density of Wild Mammals, Man and Birds in the Alluvial Forest in the Gunong Mulu National Park, Sarawak," Transactions of the Sixth Aberdeen-Hull Symposium on Malesian Ecology, edited by Adrian G. Marshall, University of Hull, Department of Geography, Miscellaneous Series No. 22, page 6, 1979.

During the Royal Geographical Society expedition, 1977-78, baited cage traps and mist nets, set periodically on surveyed plots, were used to sample, respectively, the small mammals and birds of the understorey of mature seral forest on the alluvial flood-plain of the lower Melinau Paku river, Gunong Muly National Park, Sarawak. In associated studies of the Penan, nomadic hunter-gatherers resident in the Park, a census was made in early 1978 and, during ten days in the company of a two-family party of 20 persons, note was kept of all animals killed for food. The results are used to provide tentative values for the density (in terms of individuals and of biomass) of trappable mammals and nettable birds in this habitat, and to produce a provisional estimate of the annual dietetic requirements of the Penan.

*Papers concerning Borneo read at the 78th Annual Meeting of the American Anthropological Association, November 1979, Cincinnati*

Appell, G.N. (Brandeis University) "The Social Consequences of Individualization of Land Tenure and Intensification of Agriculture among the Rungus of Northern Borneo" The Rungus are swidden cultivators. The village holds residual land rights; use rights reside with domestic families. Residence is uxori-local. Men and women have equivalent status. The government is introducing individual ownership of land by men, and irrigated rice. The consequences include: reordering the property systems to accommodate new land and water rights; change to virilocal residence; role conflict as female status declines; erosion of the jural personalities of family and village; development of roles to manage water allocation and maintenance tasks.

Fidler, Richard C. (University Museum) "Complementary Exploitation and Stable Co-Residence in Multiethnic Societies" Multiethnic societies require stable coresidence of their constituent groups. The "Conflict Model" states that this is achieved only when the strongest ethnic unit dominates the total system and weaker groups accept subservience. Competition for resource niches in the shared physical/social environment is a prime cause of interethnic conflict. Ethno-ecological research in Pacific Basin societies suggests an alternate mechanism: stable coresidence becomes viable when ethnic groups exploit separate, nonconflicting resource niches. Complementary exploitation fosters symbiotic ties of mutual interdependence. This hypothesis is illustrated by the stability without domination of Iban farmers, Chinese merchants, and Malay public employees in Malaysian Borneo.

King, Victor T. (University of Hull) "Ethnic Identity and Ethnic Change in West Borneo" Two levels of analysis are used to describe and analyze ethnic identification and processes of ethnic change among the peoples, particularly the Maloh, of the Upper Kapuas region of West Kalimantan. The first level establishes static frameworks which delineate "subjective" (self-imposed) and "objective" (externally-imposed) classificatory categories. The second level adopts and modifies Edmund Leach's dynamic model elaborated in *Political Systems of Highland Burma* to analyze ethnic and socio-political changes in interior Borneo. It is argued that while certain data from West Borneo contrast with the Burma material, there are sufficient similarities to warrant an examination of the utility of the Leachian approach for analyzing ethnic change and ethnic relations in Borneo. It is also suggested that this second exercise offers a more satisfying analysis of ethnicity in Borneo than the construction of static classificatory schema.

Padoch, Christine (University of Wisconsin) "Land Tenure and Farming Practices in New and Old Areas of Iban Settlement" The rules and practices of land distribution within communities of Iban shifting cultivators inhabiting pioneering and long-settled areas are compared. Data gathered in several communities show that while rules of land ownership differ little, the prevalence of practices that extend access to land to nonowners, i.e., borrowing, "irregular" inheritance, forgetting of claims, etc., varies significantly with the length of settlement of an area. These practices are seen as mechanisms that lend flexibility to the Iban land tenure system in areas where arable land is relatively scarce.

Schneider, William M. (University of Arkansas) "Coping with Changing Agriculture and the Retention of Power in Selako Society" Traditional Selako Dayak society closely reflected the system of land tenure and shifting cultivation practiced in western Borneo. Beginning in 1968, the Malaysian government encouraged Selako to take up wet-rice agriculture on permanent irrigated fields. The traditional elites dealt with this threat to their position by co-opting the power positions in the government-sponsored cooperative set up to manage the agricultural scheme. But, during this change, the ultimate locus of power shifts from descent groups to the co-op.

Sutlive, Vinson H., Jr. (College of William and Mary) "Change and Conservatism in Iban Agriculture and Society" In both plains and upland areas of Sarawak, Iban are taking up permanent field cultivation of wet rice. This is resulting in a higher incidence of self-sufficiency in rice and economic diversification. Changes in social organization, related to permanent field agriculture, and including a greater role for women, occupational mobility for men, a shift towards uxori-local residence, and individual ownership of farmlands, is occurring. Longhouse domicile still predominates. Despite new varieties of rice and fertilizers, genetic diversity is maintained. Such changes and conservatism are consistent with the eclectic character of Iban culture.

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THE BORNEO RESEARCH COUNCIL (contd. from p. 2 )

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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 from 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.

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.

All contributions should be sent to the Editor, Borneo Research Bulletin, c/o Department of Anthropology, College of William and Mary, Williamsburg, Virginia, 23185, U. S. A.

STYLE FOR CONTRIBUTIONS

Please submit all contributions double spaced. Research Notes and Brief Communications should be limited to approximately eight double-spaced pages. Footnotes are to be avoided wherever possible. Bibliographies should be listed alphabetically by author at the end of 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.

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