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Communications concerning editorial matters, including requests to reprint or translate, should be addressed to:

The Editors
STUDIES IN THIRD WORLD SOCIETIES
Department of Anthropology
College of William and Mary
Williamsburg, Virginia 23185, U.S.A.

Correspondence on subscriptions, change of address, circulation, and payments should be sent to:
the above address

EDITORS

MARIA D. ZAMORA

VINSON H. SUTLIVE NATHAN ALTSHULER

PUBLISHER

BOSWELL PRINTING AND PUBLISHING COMPANY

Williamsburg, Virginia 23185, U.S.A.

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INTRODUCTION

This issue of *Studies in Third World Societies*, like the second, is devoted to reports on research in the East Malaysian state of Sarawak. The papers compliment Appell's overview (Publication Number Two), expanding subjects which he discussed as well as raising other important issues.

The first three articles are by linguists. Hudson discusses the classification of Bornean Languages on the basis of his work with 224 isolects. Although admittedly an interim report on a long-range project, viz. "the investigation of certain cultural-historical problems related to Bornean Peoples," Hudson's paper is one of the most important publications for students of Borneo.

Che Asmah is the first linguist to apply the concept of transformational grammar to a Sarawak Language. Her analysis of the adjective and nominal clauses in Iban is part of her more comprehensive research.

Clayre explores the world of Melanau folk taxonomy against the background of noun classifiers, "their use in quantifying and their use as noun substitutes in anaphoric reference. " Using these features as "useful channels into the minds of the people," he demonstrates that the world of the Melanau, whether in reality or myth, is "not an uncharted wilderness, but mapped out with a local logic in the syntactic and semantic groupings of the language."

Schwenk, an agricultural missionary, and Grijpstra, a rural sociologist, deal with change and development in two villages. Noting cultural - ecological factors contributing to extensive changes among the Iban of the Upper Rejang Valley, Schwenk proposes techniques useful to the change agent who must distinguish between "real needs" and "felt needs."

Grijpstra uses historical documents in addition to his own research and examines the principal stimuli which have led to "the transition from shifting cultivation to cash crops" in a Land Dayak Village, noting the importance of adaptive changes to a new eco - niche as well as participation in externally administered programs.

Schneider and Fidler are anthropologists who have worked among the Selako Dayak and Chinese, respectively. Schneider's article is an important

addition to literature on cognatic societies, covering the developmental cycle and corporate functions of the Selako family.

Fidler's research in the multi-ethnic community of Kanowit has led him to question the validity of current models of pluralism. Noting the "ecumenicity" in which members of various religious communities share in the activities of others, Fidler raises several questions, including how social boundaries are maintained, directions in ethnic evolution, and how to redesign – or inven – new models for conceptually describing the phenomenon of pluralism.

On January 21, 1975 – one year almost to the day before his tragic death - Tom Harrisson wrote his reflections on these two issues of *Studies in Third world Societies*. Noting contributions of social scientists' work in Borneo to field studies and theory, he correctly concludes that all too often researchers have not designed models useful in solving problems of development, and that there still exists a need for an "overall picture of the living human landscape."

A MAP OF BORNEO LOCATING THE DISTRICTS DESCRIBED IN THE SECOND AND THIRD ISSUES

DRAWN BY SHEARON VAUGHN

LINGUISTIC RELATIONS AMONG BORNEAN PEOPLES WITH SPECIAL REFERENCE TO SARAWAK: AN INTERIM REPORT

A.B. HUDSON
University of Massachusetts, Amherst

The presentation given herein is an interim report on the classification of Bornean Languages, a project I have been working on sporadically for some years. It should be noted at the outset that my interest in Borneo emanates primarily from social and cultural anthropology. I am not directly concerned with the process of classifying languages and building linguistic taxonomies *per se*. However, the investigation of certain cultural-historical problems related to Bornean peoples, in which I **am** interested, cannot go too far forward until some such classifying has been done. Thus, I do not consider the establishment of a Bornean language classification, when attained, to be an end in itself; rather, it will serve only as a basis for the investigation of problems that are, from my point of view, more intriguing. I have hoped for some years that full over the task of classifying Bornean Languages. Only Prentice (1970) has entered the field in a serious way, and his work so far has been limited primarily to the Idahan languages of the northeast, and has been lexicostatistical in nature.

Within the Austronesian language family, Polynesia and Micronesia have long had a coterie of linguistic comparativists and, within the last decade or so, a fair number of adventurous fieldworkers have been attracted by the ethnolinguistic riches of New Guinea and Melanesia. Far fewer comparativists seem to be specializing in the (Philippines, Sabah, Brunei, Taiwan) and western (Indonesia, West Malaysia, Sarawak, Madagascar) branches of Austronesian. However, Borneo should be of more general interest to Austronesian taxomists than it has been, for Borneo lies in the border area between the Indonesian and Philippinic language realms and may turn out to contain languages that exhibit conservative reflexes of some of the more esoteric Proto-Austronesian phonic and lexical forms.[2]

At a lower taxonomic and historical level, Borneo linguistic data will have to figure in any consideration of the protohistory of island Southeast Asia because of the apparent immediate relationship between the Southeast Barito languages of Borneo (e.g., Ma' anyan, Samihim)[3] and the Malagasy isolects[4] of

Madagascar;[5] the early appearance (relative to the rest of island Southeast Asia) of Sanskritic inscriptions and other indications of Indic influences in Borneo;[6] and, some what later, the attested presence of a congeries of "Malayic" Dayak isolects in Western Borneo (e.g., Iban, Sebuyau, Selako)[7] that may make it necessary to reconsider the homeland and early history of the speakers of Proto-Malay. The Tamanic isolects (Taman, Mbaloh, Kalis), which I earlier placed in the Malayic Dayak category (Hudson 1970), now appear to have distinctive ties with the languages of southern Celebes (e.g., Bugis).

One of the reasons for the apparent lack of interest in Borneo on the part of Austronesianists is the relatively small number of descriptive grammars that have been produced for the island's languages. This situation may improve somewhat in the next few years when the reports of the ten to twelve Summer Institute of Linguistics field workers currently at work throughout Borneo begin to find their way into print. Without good descriptive data in the form of extensive grammars and lexicons, it is next to impossible to perform the kind of high-quality comparative work that is the necessary prerequisite to meaningful linguistic classification.

Various principles can be used in establishing a linguistic classification. The type of classification most useful for attacking problems of cultural history is genetic classification, one that groups languages according to similarities "inherited" or "conserved" from some common protolanguage. The classification should also subgroup the languages to indicate the ordering of the more-immediate and less-immediate relationships that exist among them so that, for at least some purposes, those relationships can be worked into a "family" tree diagram.[8] It must be emphasized that such diagrams are idealized models, representing only the best approximation of the "true" genetic subgroup interrelationships that the analysis of the data can provide; the analysis attempts to factor out the effects of first order diffusional influences as well as random or sporadic innovations.

The basis for linguistic subgrouping is the comparison of bodies of data (corpera) representing different language isolates (isolects). Ideally, each corpus used for comparison should reflect as complete a description as possible of the isolect under consideration, since at different stages of the operation either phonological, lexical, grammatical, or semantic data may provide the best key to proper subgrouping. It goes without saying that we are not dealing with an ideal situation in Borneo, since so few extensive descriptions exist. Given this restriction, the corpera used should at least be comparable; measuring a syntactic description of one isolect against the phonology of another will not help us much. By far the greatest number of Bornean isolects are represented only by lists of words, accompanied by, at best, superficial glosses. However, because of their relative ubiquity, and because of the paucity of other kinds of higher-quality corpera that could be used for wide-scale comparison, much of my preliminary work on Bornean language classification has

been based on the analysis of lexical lists. Many of these have been taken from published sources,[9] while many unpublished ones have been collected by myself (over a hundred) or by others who have made them available to me.[10]

The process of constructing a useful language classification ia a labor-intensive activity; although there are some less time-consuming interim approaches, such as lexicostatistics (see below, pp. 7 - 8, 14), real shortcuts appear on the immediate horizon. Such a classification is ultimately based on the recognition of similarities exhibited by one or another of the isolects or groups of isolects under consideration. Thus, we start by searching our corpera for similarities. From the standpoint of subgrouping, it is necessary to factor out similarities that are random in nature (of which any two languages will exhibit some examples), and similarities that reflect language universals or near universals. Where consideration of the evidence leads us to believe that we are dealing with similarities that are nonrandom and nonuniversal in nature, then it is useful to assume that an historical relationship exists among the isolects exhibiting them. Where indigenous written records are scarce or nonexistent, any kinds of evidence, whether based on archaeology , oral histories, comparative mythology, etc., are a boon to the cultural historian.[11]

When dealing with similarities that appear to reflect historical relationships, we must distinguish between those that are diffusional (i.e., borrowed from one isolect to another) and those that are genetic (i.e., inherited from a common protolanguage). This is not an easy thing to do, particularly when comparing isolects that are all, to a greater or lesser degree, related to one another. Leaving Chinese and European languages aside, this is, of course, the case in Borneo, one that is further complicated by the fact that an element entering a protolanguage by diffusion, becomes a genetic element in any succeeding daughter languages. Needless to say, evidences of diffusional relationships can be of just as much interest to the cultural historian as genetic ones. Usually, the diffusional elements can be properly recognized only as, or after, genetic elements have been identified. Since phonological, lexical, syntatic, and semantic realms of a language may be differentially affected by the diffusion process, full grammars are particularly useful in helping to identify diffused elements and their presumed source.

As part of the background for our approach to Bornean linguistic classification, we must recognize two general types of processes that are operating in any language at any given time: the process of conservation and the process of innovation. Because of the ways in which language is transmitted from one generation to another, language acquired in childhood tends to conserve many of the attributes of the language/s spoken by parents, parental surrogates, and other enculturative models. We can call conservative any elements of a language that appear unchanged at two successive points in time.

In any language, changes or innovations of different kinds are taking place at various rates. The changes may reflect internal innovations or diffu-

sion from an "outside" language. Innovations may affect any part of the grammar and semantic system of the language. An innovation may involve the addition of something new, the loss of something old, or the rearrangement structurally or statistically of old elements. Whether internal or external in origin, innovations that take place in a protolanguage are transmitted to succeeding daughter languages as part of the process of conservation , though they may be altered subsequently in a daughter language by later innovations.

Daughter languages descended from an immediately common protolanguage will share many elements or complexes of elements reflecting innovations that took place in the protolanguage. From the standpoint of comparative analysis, such similarities appearing in the corpera under consideration could be termed shared innovations. On the other hand, the daughter languages will also exhibit similarities reflecting elements that were themselves conservative in the protolanguage; these could be termed shared conservatisms.

Thus, generally speaking, the daughter languages of a protolanguage will exhibit two types of genetically based similarities: shared innovations and shared conservatisms. The shared innovations are the elements that are diagnostic of that taxonomic subgroup of languages that are descended from the common protolanguage; they are elements that, leaving aside complications related to linguistic convergence and independently derived similar innovations, will not be shared by other, more distantly related languages that are not descended from the protolanguage under consideration.

Therefore, where genetic similarities are exhibited by cognate languages, only validated shared innovations can be used as criteria for purposes of subgrouping into more immediate, lower order, as opposed to more remote, higher order taxonomic classes. However, the ability to distinguish between shared innovations and shared conservatisms, which is so necessary to proper subgrouping , in essence requires that historical reconstruction be performed. For it is only by the comparison of the similarities shared by isolects with protolanguages at various ascending levels that the determination can be made as to what is innovative and what is conservative. When properly done, historical reconstruction is a time consuming procedure.

Efficient reconstruction requires the easy recognition of cognates across the entire range of isolects that are to be included in the taxonomy. Cognates are forms that, ideally, exhibit semantic similarity and regular sound correspondences. I am currently working with material representing some 224 Bornean isolects, many of which, in the lexical domain alone, are represented by over 300 forms. Given this amount of data, the process of orderly cognate recognition and analysis requires some preliminary sorting.

One way begin is simply to bring together as much of the information as possible in an easily comparable form. For this purpose, no matter what their source, all word lists have been copied onto Unisort cards in which the glosses,

and thus the leximes, appear in a fixed order. The master lexical lists that I have been using consist of some 350 items divided among three sections: the first (SWL) contains the 215 items of the original Lees-Swadesh "basic" vocabulary list ; the second (SDL) contains 107 items of Borneo-centric vocabulary compiled by the author; the third (KTL) consists of kinship terms extending up and down three to five generations and outward to three to five degrees of collaterality including affines. Needless to say, the selection of glosses to appear on the list is somewhat arbitrary. I first established the list for my own use some ten years ago to ensure that whatever I collected in the way of lexical material was at least comparable, the analytic prerequisite mentioned above. To the extent that I collected material myself, the lists representing various isolects are fairly complete and thus fully comparable. To the extent that they are represented by lexical materials received from colleagues or copied from published sources, my lists representing some isolects are not necessarily complete; this is only to be expected since no one could know in advance what particular items I would be using, or even that I was using anything. Since, as noted above, many field workers *do* collect word lists, I suggest, in the interests of comparability that they try at the minimum to collect as many of the items appearing on my list as possible, at least until such time as some other standard list is developed. The collection of such a list by somebody does not, of course, commit him to submit the list to me for my own nefarious purposes. However, if the format is followed, all material would be comparable and of real use, no matter who does it, for purposes of classification.

Before continuing with the discussion of preliminary sorting, I should say an additional word in favor of an extensive word list as opposed to a short one for purposes of classification. One of the supposedly less labor-intensive approaches to language classification has been through lexicostatistical analysis. Without reviewing the pros and cons of the methodology involved,[12] I should like to make one brief comment. Most lexicostatistical classifications that have appeared in print have had the practical limitation that, usually, only the names of the isolects and a set of cognate percentages are published to support the classification. Given this format, there is no way to fit a "new" isolect into a lexicostatistical classification, since there is nothing to compare it with; thus, the classification cannot be used as a key to field identification. In addition, since the collection of the word lists upon which lexicostatistical analyses are based is a time-consuming and often expensive operation, the burden of providing the data for the scientific replication of results should be placed on the classifier; thus, it should be incumbent on those who publish language classifications based on lexicostatistical analysis to publish simultaneously the lexical data upon which the analysis is based.

The practitioners of lexicostatistical analysis have been equally willing to work with lexical lists of two sizes: there is a 200-item list, roughly equivalent to

my 215-item SWL, and a 100-item list selected mostly from the 200-item list. Since it takes less time to "collect" 100 items than 200, and since the size of the list theoretically does not affect the quality of the statistical classification derived therefrom, the tendency has been for field workers, especially anthropologists, to collect the 100-item version. Unfortunately, while the 100-item list may be theoretically as effective as the 200-item list for purposes of lexicostatistical subgrouping, which has limitations that I will not go into here for lack of space, this is not the case when the data is used for purposes of subgrouping on the basis on the basis of historical reconstruction.

Reconstruction is based on the recognition of cognates which, as stated, exhibit semantic similarity and regular sound correspondences. The comparative method used in reconstruction makes the operational assumption that sets of regular phoneme correspondences (cophones) exhibited by two related isolects reflect the system of positional (allo) phones continued from an earlier protolanguage. The analysis of cophones and their eventual assignment to protophonemes on the basis of the criteria of distributional complementarity and contrast is analagous to the procedures followed in phonemic analysis in descriptive linguistics.[13] This operational assumption in fact reflects the Neogrammarian stipulation that "sound laws have no exceptions"; it is, in general, a good assumption to work under, since it forces analysts to look for, and therefore often discover, regularities that are frequently hidden within their data's mass and complexity. We can consider this the historical generalist assumption; it is a useful one to operate under, even though its purported effects may not always be empirically demonstrable. However, while it is useful to operate under the generalist assumption, it is necessary to recognize the existence and validity of an historical particularist assumption, best summed up in the etymologists' dictum that "every word has its own history". In many ways, phenomena treated only by particularist explanations form a residual category, which we can hope will eventually be explicable in terms of generalist assumptions. However, while waiting for that millenium to come, we must keep in mind that innovations in daughter languages reflecting particularist historical processes are, by their very nature, sporadic; thus, they do not reflect the general systemic properties of protolanguages that we are trying to reconstruct for purposes of classification. Certainly in the early stages, reconstruction can only go forward through the consideration of data that are the products of generalist historical processes.

How do these rather abstract considerations relate to the useful size of word lists for purposes of reconstruction? As we know, not all phonemes or positional (allo) phones in a particular language have the same statistical frequency of occurrence, whatever their structural equivalence may be. Some, in fact, may be very infrequent. A phonic element that had a low frequency of occurrance in a protolanguage will naturally be reflected by a cophone (regular sound correspondence) that has a low frequency of occurrence in

the daughter language(s). If a sound correspondence occurs only once in the corpera under consideration, there is no way to determine whether it reflects a "sporadic" particularistic product, or a "regular" generalistic product with a low frequency or occurrence. However, from the standpoint of effective reconstruction, it is imperative to make this distinction as clearly as possible, since the consideration of non-regular correspondences, which are, of course, empirically widespread in all language families, can add even greater difficulties to an analytic problem that is complex to begin with. The greater the number of lexical items that are being compared, and 300 are none too few, the greater the probability that infrequent cophones will recur often enough so that their regularity can be recognized. In addition, the more token occurrences of a cophone we have, the greater the opportunity we will have to assign cophones to the same protophoneme, or to demonstrate the contrasts that will lead us to assign them to different protophonemes.

Returning now to the use of the comparative lists in preliminary sorting: Since the lists are organized by glosses, meaning, one of the two major criteria used in identifying cognates, is held constant. Thus, if forms from different isolects appearing under the same gloss also sound alike, they will be accepted as cognates. It should be kept in mind, however, that because of semantic shifts not all cognates sharing semantic similarity will be identifiable in this way. For example, *sungai*, the generic term for 'water' in various Kenyah isolects, is not cognate with *danum*, the term for 'water' in Punan Biau and many other Bornean languages. On the other hand, the Kenyah term obviously is cognate with the term *sungai*, and its phonological variants (e.g., *hungei* in Ma'anyan), which in many Bornean languages means 'river'.

Spreading out the 200-plus lists for simultaneous mass comparison is rather cumbersome. In order to simplify the identification of cognates, especially those representing conservative reflexes of protoforms that may be retained in only a few isolects, perhaps geographically widely separated, I have for some time been compiling a set of master semanto-lexical lists. Each list includes the lexical forms corresponding to a single gloss from all the isolects. The words are arranged so that those of similar form are more or less contiguous. Each form is identified by isolect name abbreviation and source for ease in checking. Where possible, the Proto-Austronesian form is provided. The compilation of the full set of semanto-lexical lists is not yet completed. The list for the gloss 'hair' has been included in the appendix to illustrate the format.

In order to be able to relate the lists collected with past and present ethnonyms that have appeared in the historical record, Judith Hudson and I have compiled an ethnonym catalog with a separate entry for every ethnonym we have encountered in the literature or in our field notes. Under each entry we list general information about source and location of ethnic group (with a number keyed to a set of master maps for Borneo that we have compiled), as

well as any information about language affiliation. Often we are able to associate ethnonyms for which we have no linguistic information with ethnic groups for which we have such data. The ethnonym catalog now has about 1,200 entries of varying quality. Two representative entries are given below:

Adang: Sarawak V, Adang R. *Apo Duat Gp* Moulton, SMJ :1(2); 90 – 98 (1912) puts the Tabun (Treng) settlements at Kuala Damit and Kuala Madalam; indicates Tabun's closest neighbors are the Adangs. The younger generation of Tabuns all use Adang and know very little Tabun.

Mallinckrodt, I,40 (based on Hose, I,35) places the Adangs with the Tinggalan (probably on the basis of geographical proximity; M. poor on linguistic and *adat* classifications as well). Located on the upper Limbang R.

SWL for Adang taken from Ray. *LOB* from St. John and Moulton); located on Adang R., tributary of Limbang. The lexical evidence places the Adang fairly discretely in the Apo Duat Gp.

Sarawai: Kal. Barat, Sarawak R., Melawi *Mallinckrodt*, I,22 (based on van der Willigen Map 8) puts Sarawai in the Ot Danum (my Northwest Barito Gp.)

Notebook 22/45: Yohannes Yantije, my Semitau informant, equates Bahasa Sarawai with B. Melawi.

Three of my Ot Danum/Dohoi informants come from the upper Melawi.

Given the large number of isolect corpera representing Bornean languages, they cannot all be compared at once. Therefore, one of my first goals has been to try to class together isolects that exhibit so many lexical and phonological similarities that they can be accepted as members of basic taxonomic groupings that have a fair degree of discreteness. I have attempted to set forth a few simple diagnostic features shared by members of each basic group that generally contrast with the isolects of other basic groups. These features can be useful in assigning isolects to their respective basic categories; the diagnostic features in no way exhaust the distinctive phonological, morphological, and syntactic attributes of a group in question, but are intended merely to provide a simple field key that can be used in the preliminary sorting of isolects. Ideally, a discrete taxonomic group has no isolects assigned to it that actually belong, genetically, to some other group at the coordinate taxonomic level. Unfortunately, the true discreteness of our taxonomic categories cannot be evaluated and demonstrated until the process of comparative reconstruction has been completed, since only at that time can we accurately distinguish between shared innovations and shared conservatisms. I am more confident of the apparent discreteness of some of the basic groups than I am of others; the Land Dayak and Apo Duat groups appear quite discrete in a

number of features, whereas the subgroups of the Rejang-Baram group seem less so. Tentative though they may be, these groups do provide a reasonable starting point for first-order reconstruction, the products of which, then, can be used for higher-order reconstructions when compared with each other.

Since they are reported for most isolects for which we have information, I have used, as one preliminary criterion for assigning isolects to basic taxonomic groups, the system of numeral lexemes exhibited, with some adjustments for discernible diffusional influences. The Bornean languages show a fair amount of numeral system variability, both lexical and phonological; a listing of my numeral groupings is given in the appendix. Some of these numeral configurations are fairly distinctive, such as the numerals for 'seven,' 'eight,' and 'nine,' which thus can be useful for subgrouping where shared innovation is in evidence. By comparison, the lexemes representing 'two' (e.g., *dua, duo, due*), 'three' (*telu, tolu, talu*), 'four' (*pat, apat, opat, epat*), 'five' (*lima, limo*), and 'six' (*enem, onom, anam*) and similar variants are relatively more conservative and thus not of such great value for subgrouping purposes; however, in a few isolects diagnostically distinctive forms for these numerals appear (e.g., *rueh* 'two,' Southeast Barito group, *taruh* 'three' and *rimuh* 'five,' Land Dayak group, represent phonological variants; *hagat*ᵉ 'six,' Barito-Mahakam group, represents a lexical variant).

Of course, the sharing of a distinctive numeral system by two or more isolects is enough by itself to warrant assigning them to the same immediate subgroup. However, the discovery of such a commonality does suggest that the isolects sharing such a common feature be compared more extensively, to see what other evidence relevant to subgrouping there might be. For instance, Cense and Uhlenbeck (1958:8), in discussing dialects of Coastal Malay in East Kalimatan, state that

> The language of the inhabitants of
> Ampenan is likewise included among
> the dialects of Kutai by Knappert,
> but elsewhere in his paper he speaks
> about a completely separate language,
> giving a small number of words by
> way of illustration.

Reference to my ethnonym catalog indicates that Knappert was writing about "Ampanang" rather than "Ampenan." Knappert (1905:590) first lists Ampanang as a Malay dialect, but later (1905:615-16) indicates that Ampanang does not appear to be mutually intelligible with the Malay spoken in the nearby villages of Kahala and Tuana Tuha. Knappert gives a list of only eighteen items for Ampanang, but, as it turns out, they were enough to allow a fairly confident taxonomic assignment to the Barito-Mahakam group, which also includes Tunjung.[14] The Ampanang numerals for `two,' `six,' and `eight' were fairly distinctive, and reference to my numeral categories indicated that

Tunjung was the only other isolect in my collection exhibiting Ampanang-like forms. Two other items, those for `man' and `child' were also highly distinctive. The evidence given below is fairly conclusive in this case.

TABLE 1

	Ampanang	Tunjung
one	*tja*	*ca*
two	*réga*	*r^ga'*
three	*téloe*	*t^lu*
four	*apay*	*pat*
five	*lima*	*lima'*
six	*hagan*	*hagat'*
seven	*toetjoe*	*tuju'*
eight	*haloeng*	*kaluk'*
nine	*salatian*	*setiat'*
man	*liha*	*liha'*
child	*toehi*	*tuhi'*

I have done some provisional lexicostatistical subgrouping of the isolects. Leaving aside the problems associated with collecting word lists for lexicostatistical treatment discussed above, there are inherent limitations on the quality of taxonomic results that can be obtained through this method. It is truly difficult to properly identify cognates, particularly those embodying cophones having a low statistical frequency of occurrence, unless a comparative reconstruction based on a fairly extensive corpus has already been carried out. Where this has not already been done, and regular sound correspondences already established, one can only evaluate cognates by inspection, though some inspections may be performed in a more careful manner than others. Therefore, lexicostatistical subgrouping is generally only useful for clearing away the easy problems and pointing the way toward the difficult areas where only the full light generated by comparative reconstruction can properly illuminate the taxonomic picture.

In the interim classification that will follow, I will occasionally indicate that, in addition to other criteria, lexicostatistically derived information has been used in evaluating the apparent discreteness of one or another of the taxonomic groups that I recognize. As mentioned earlier, published lexicostatistical generalizations should be looked at with a skeptical eye unless the data upon which they are based are published concomitantly. Whereas in the past (Hudson 1967b and 1970) I have attempted to publish the data upon which my classificational evaluations were based along with my interpretation, space restrictions preclude this practice here.

As the details of the classification become clearer with time, reevaluation or clarification of previous statements on the subject will be possible. For in-

stance, the Selako isolect of Lundu District in Sarawak had generally been classified as Land Dayak. However, as I have pointed out elsewhere (Hudson 1970), Selako exhibits none of the linguistic features typical of Land Dayak isolects and belongs instead to a category that I have termed Malayic Dayak. The Malayic Dayak category includes many isolects, including Iban, that are widely spoken by non-Moslem peoples in the western part of Borneo. The indentification and delimitation of the Malayic Dayak situation has helped to clear up some of the misunderstandings that developed in some quarters in reaction to Cense and Uhlenbeck's statement (1958:10) that "Sea Dayak or Iban has to be counted among the Malay dialects."

Similarly, Cense and Uhlenbeck (1958:45) appear not to have interpreted the data correctly when they state that "Siang, for which Den Hamer mentions a number of words, is nothing but Dusun Maanyan." In this case, they have confused Siang, an isolect belonging to my Northwest Barito group, with Si(h)ong, a term referring to the Southeast Barito isolect spoken in the Paju Epat Ma'anyan village of Siong. Since the "Siang" and "Maanyan" vocabulary lists given in Den Hamer (1889:456-81) reflect the attributes that distinguish between Northwest and Southeast Barito groups, one can only conclude that Cense and Uhlenbeck misread the lists. Ray (1913:12-13), who also worked from the Den Hamer material, and, in fact, published part of the lists, recognized the separateness of Siang and Maanyan though he did not give any diagnostic criteria.[15]

On the other hand, a consideration of the evidence bears out the offhand suggestion of Cense and Uhlenbeck (1958:31) that, " it is curious to observe that a number of words of Sajau Basap which are not to be found in publications concerning other languages of East Borneo show a resemblance to words which we only know from the Punan Ba-Baketan-Ukit group...."[16]

Whereas we have been considering a strategy based on reconstructing Bornean protolanguages from the bottom up, we can also work from the top down, looking to see what reflexes of Proto-Austronesian (PAN) forms appear in Bornean languages. PAN has come to be known in some detail over the last fifty years, a fact that cannot be ignored. However, since much of the reconstruction of PAN was done without detailed knowledge of Bornean languages, phenomena appearing in those languages may necessitate a restructuring of PAN. Since a reconstruction generally represents only an optimal solution to an ambiguous and often contradictory set of data, any new data coming into consideration may provide evidence for the construction of a new form or the restructuring of an old one. Ideally, then, the entry of new data into the field should require a complete reevaluation of the total system under reconstruction. For practical reasons, this is not generally done, but the principle should be kept in mind. In addition, despite the fact that a fair amount is known about PAN, not too much work has been done on elucidating the protolanguages intermediate between PAN and individual Bornean isolects.

Thus, in more cases, the problems of identifying and interpreting cases of shared innovation for purposes of subgrouping still remain.

Blust's work with Kalabit languages (1969, 1970, 1972) originally developed from a top-down strategy. Blust suggests that the /b^h/,/d^h/, and /g^h/ phonemes in the Bario dialect of Kalabit represent products of a "vowel deletion" process: "the result of a series of changes that commenced when the first of like vowels flanking the reflex of PAN *S was regularly lost if it stood before the reflex of PAN *b, *d, *D, *j, or *Z" (1972:12-13). By way of illustration, Blust (1969:87-89) presents a number of examples of isolects where different reflexes of PAN *b appear in different words. Intervocalically, PAN *b is differentially reflected in the forms for *_abuh_ 'ashes' and *_tebau_ 'sugarcane'; e.g., _avo/tebau_ (Bintulu), _abo/tefo_ (Lelak), _abu/tepu_ (Lipo Tau Kenyah). In initial position, PAN *b is differentially reflected in the forms for *_batu_ 'stone' and *_buS$_{1,4}$ek_ 'head hair'; e.g., _vatau/bok_ (Bintulu), _bato/fuok_ (Lelak), _batu/pok_ (Lp Tau). Languages showing these and analogous differential reflexes can be said to exhibit "Blust phenomena". Blust argues logically that,

> ...because of its complexity, it is more reasonable to assume that the vowel deletion rule was added only once rather than on several occasions independently in the earlier stages of these languages. It follows that all languages which reveal the effects of this change are descended from a proto-language ancestral to them but not to certain other Austronesian languages that do not exhibit corresponding discrepencies (1972:13).

Blust's argument is a reasonable one, "other things being equal." It should be kept in mind, however, that linguistic classifications generally evolve from a consideration of a systematically related group of features, and it is rare indeed that a single element can be used as a diagnostic feature that would override all other elements being considered in the subgrouping process. There is some evidence that Blust phenomena are reflected sporadically in some language groups: present in some isolects, absent in others. However, what works, works; an evaluation of the ultimate usefulness of Blust phenomena in the classification of Bornean languages must wait, initially at least, upon the appearance of a fuller, more systematic treatment of the subject by Blust himself.

In the realm of top-down classification, I have not yet finished my systematic analysis of the reflexes of all PAN protophonemes in Bornean languages; nor would the spaced allotted for this presentation be sufficient to allow such consideration. However, for the purposes of the present exercise, we

can consider the configuration of Bornean reflexes of five PAN protophonemes: *j, *D, *d, *Z, dan *z. These appear in the following PAN forms:

TABLE 2

*/j/:	**ijusun* 'nose'; *qa(n) *jaSaw* 'sun,' 'day';[17] **ŋajan* 'anem'; **pajay* ' paddy'
*/D/:	**Dawn* 'leaf'; **Dewha* 'two'; *DaRaQ 'blood'
*/d/:	**dilaq* 'tongue'
*/Z/:	**quZaN* 'rain'; **tuZu* 'seven';[1] **Zauq* 'far'
*/z/:	**zaqat* 'bad'; **-qizaw* 'green'

Not all the isolects in my sample exhibit readily identifiable reflexes of these thirteen protolexemes. In some cases the cognate form has been replaced by an innovative lexeme. Such lexemic innovations may be useful in establishing criteria for language subgrouping.

In the interim classification that follows, a combination of features that have been discussed will be considered, some of which may be useful as a field key: numeral groups (NG), distinctive lexemes, reflexes of *j/*D/*d/*Z/*z, Blust phenomena, and lexicostatistical information.

In presenting the classification, it is useful to distinguih between "endo - Bornean" and "exo - Bornean" isolect groupings. Exo - Bornean isolects are those that appear to have closer affinities to languages indigenous to regions outside Borneo than they do to other Bornean languages. Endo - Bornean isolects are those that can be considered autochthonous to Borneo, i.e., have not been shown to be exo - Bornean.

EXO–BORNEAN GROUPS

I will consider first the exo – Bornean groups. Within the realm of exo – Bornean isolects, space restrictions preclude consideration here of such languages as Batak and Javanese, which are spoken in one or another part of the island. In a fuller treatment, these and similar languages would have to be considered since on occasion they have had some diffusional influences on Bornean groups that are treated here are the *Malayic, Tamanic* and *Idahan.*

1.0 The Malayic Group

Many peoples in Borneo speak isolects that bear a marked immediate resemblance to those spoken in the Malay Peninsula and South Sumatra, the putative homeland of the Malay peoples and languages. Malayic numbers belong to numeral group (NG) 1, which exhibits *tuju* 'seven', *(da) lapan* 'eight', and *sam(b)ilan* 'nine'. Most Bornean Malayic isolects exhibit a cognate of *talu* for

'three', but a few show a more recent diffusional influence reflected in *tiga*. Other apparent characteristic lexical elements are: *(h)ari* 'day'; *nama* or *dama* 'name'; *datang* 'come'; *makan* 'eat'; *duduk* 'sit'; *laki* or *swami* 'husband'; *bini* or *istri* 'wife'; *merah* 'red'; *al'*, *ae'*, or *air* 'water'.

The term 'Malayic' used here refers only to linguistic attributes, and bears no religious connotations relative to Islam; some Malayic isolects are spoken by Moslems but others (e.g., Selako, Iban, Keninjal) generally are not; many Bornean Moslems speak Malayic isolects, but others (e.g., Bakumpai of the Southwest Barito group, and Melanau of the Rejang - Baram group) do not.

In general, Malayic dialects are spoken throughout the coastal areas of Borneo by many of the Islamic peoples who consider themselves culturally to be "Malays"; as far as I know, there are no comparative studies available that deal with the dialectical variation that exists among the various coastal Malay dialects. What I have termed Malayic Dayak isolects (Hudson 1970: 302 - 03), spoken by non – Islamic peoples in Borneo are generally limited to the western part of the island, although in recent years Ibanic speakers have spread as far eastward as Sabah. Some minor variations exist among the Malayic Dayak isolects, of which Ibanic is perhaps the most widespread.

1.1 Ibanic subgroup

The Ibanic subgroup, which includes the Iban and Sebuyau isolects of Sarawak, as well as the Seberuang, Mualang, Kentu', Air Tabun and similar isolects of the mid – Kapuas region in West Kalimantan, are identifiable by the presence in word final position in certain lexical forms of / -ai/ where cognates in other Malayic dialects exhibit /-an/, / -an/, or, less frequently, /- ar/ (e.g., Ibanic *bajalai* 'walk', *datai* 'come', *terbai* 'fly' *besai* 'large', where most other Malayic isolects exhibit *bajalan, datang, terbang,* and *besar* respectively).

Space does not permit the consideration of other Malayic variants here. Various subgroups can be identified, none of which appears to be lexicostatistically discrete. It is possible that more variation exists among Malayic isolects in Borneo that in Sumatra or the Malay Peninsula, a possibility that should be of interest to Southeast Asian historians. In this area, interpretation will have to wait until better descriptions are available from a number of Malayic isolects, including those of the aboriginal Malays of Malaya.

2.0 Tamanic Group

Malayic numerals of NG1. Isolects of the Tamanic Group, which include Taman, Kalis, Pari, and Mbaloh, are spoken in the upper Kapuas region of West Kalimantan around Putus Sibua, and along the Embaluh and Kalis rivers. Tamanic appears to have been influenced diffusionally by Malayic elements, for which reason I earlier placed it in the Malayic Group (Hudson 1970) after a preliminary analysis. However, its reflexes of PAN *j>s and *d>l

are definitely not Malayic and are, indeed, unique on the Bornean scene. Bugis, a language originating from southern Celebs, provided the closest match of Tamanic that I could find. Cognates in Mbaloh and Bugis reflecting PAN *j and *d are:

TABLE 3

	day	name	paddy	tongue
Mbaloh	*aso*	*asan*	*ase*	*lilah*
Bugis	*'-soh*	*as-η*	*aseh*	*lila'*

Some other distinctive lexical items found in Tamanic are: *kayako'* 'left (side), '*lamba*' 'walk', *malasu'* 'spit', *isi* 'tooth' (*isi* in Bugis), *iŋar* 'nose' (*ina'* in Bugis).

3.0 Idahan Group

Following Appell (1968) and Prentice (1970), the Philippinic isolects found in the northeastern part of Borneo are assigned to the Idahan group. Most Idahan isolects appear to contrast both with other Bornean and other Philippinic languages in their innovative cognates for ten ([*m*] *opod* or [h] *opod*), and rain (*dasam* or *rasam*). Idahan shows reflexes of **tuZu* for 'seven', a feature shared with most Bornean languages but not found in non-Bornean Philippinic isolects. Leaving aside Paitanic subgroup, Prentice established two major (Murutic, Dusunic) and four minor (Tidong, Murut, Dusun, Bisaya) subgroups in Idahan. Prentice's 1970 classification is lexicostatistical, and linguistic criteria for the subgrouping are not given for Idahan. Both major subgroups of Idahan appear to exhibit Blust phenomena in the form of differential reflexes of PAN *j in the forms for 'nose' *(t)aḏuŋ* (both MT and DB subgroups), and those for 'name' *iŋjalan* (MT) and *ŋaran* (DB).

3.1 Murut-Tidong subgroup (MT)

This group is equivalent to Prentice's Murutic group. With a few exceptions, this subgroup generally exhibits the following properties: NG's 2, 3; *z reflected by /l/ (e.g., *alaat* 'bad' in Tagal); 'rain' reflected by *dasam* or *aŋulu*; 'far' reflected by *atawai* or *alut*; 'water' reflected by *timug* or *siaŋ* This group includes Tidong, Bolongan, Tarakan, Tinggalan, Tagal, and the various Idahan Murut isolects.[19]

3.2 Dusun-Bisaya subgroup (DB)

Equivalent to Prentice's Dusunic group. The group generally exhibits the following properties: NG's 4, 5, 6, 7; *z reflected by /r/ (e.g., *ara'at* 'bad' in Rungus Dusun); 'rain' reflected by *rasam* or *darum*; 'far' reflected by(*o*) *sudu* ; 'water' reflected by (*v*) *aig*. This group includes Bisaya, Tutong,[20] and the various Idahan Dusun isolects.

ENDO-BORNEAN GROUPS

By and large, the language relationships in the western, central, and southern parts of Borneo seem relatively clear, so that I will begin by dealing with the language groups from those areas; the picture in the northern and eastern parts of the island is less sharply focused, and , since many of the problems relating to languages in that region involve Sarawakian languages, I will deal with that area last.

4.0 East Barito Group

East Barito is distinctive among Bornean groups in that PAN *Z is reflected by /r/ (e.g., *uran* 'rain).[21] The Northeast and Southeast Barito subgroups exhibit a 63 percent cognate percentage, and appear to form a lexicostatistically discrete group.

4.1 Northeast Barito subgroup (NEB)

NG 8; PAN *d reflected in /d/ (e.g.,*daai* 'bad'); NEB isolects appear to exhibit shared lexical innovations in forms such as *tuwit* 'sit', *jakat* 'stand', *utut* 'smoke' and *koko* 'dog'. The NEB group includes Taboyan, Lawangan, Bawu, Pasir, Benua, and Bentian; these isolects are spoken in the hill regions in northeastern Central Kalimantan and southern East Kalimantan.

4.2 Southeast Barito subgroup (SEB)

NG 9; distinctive in that PAN *D is reflected in /r/ (e.g., *rawen* 'leaf', *rueh* 'two'); 'five' is reflected as *dime*. The SEB group includes Ma'anyan, Paku, Simihim, Dusun Witu, and Dusun Malang; these isolects are spoken in the lower-lying areas to the east of the mid-Barito River in Central Kalimantan, and in the region inland from South Kalimantan's east coast. It should be noted that there is evidence that suggests an immediate relationship between the SEB isolects and the languages of Madagascar.[22]

5.0 West Barito Group

At this point, it is not yet possible to point to any diagnostic phonological shared innovations that would demonstrate the immediate relationship of the Southwest and Northwest Barito subgroups. However, they do exhibit a 58 percent cognate percentage, and appear on lexicostatistical grounds to form a discrete group. However, the lexicostatistical evidence does not warrant putting West Barito into an immediate taxonomic group with East Barito and Barito-Mahakam.

5.1 Southwest Barito subgroup (SWB)

NG 10; *hanva'* 'eight' and *jalatien* 'nine' are lexically innovative and distinctive; *jahawen* 'six' is phonologically distinctive, but is probably cognate with the

form *jawatn* 'six' that appears in Benua and Bentian of NEB (Language Group 4.1), and possibly also with the Tunjung form *hagat*^{n} (LG 6.0). The SWB group includes Kapuas, Katingan, Ba'amang, Kahayan; the term *Ngadju* has also been applied, in its proper, restricted sense, to refer to both the SWB group as a whole and, more particularly in the works of Hardeland, to the Pulopetak isolect of SWB.[23] SWB isolects are spoken in the lower drainages of the Kapuas, Kahayan, and Katingan rivers, and the west bank of the Barito River, all in Central Kalimantan.

5.2 Northwest Barito subgroup (NWB)

NG 11. The numerals in this group are conservative for 'seven' and 'nine', but phonologically innovative *jalu* for 'eight'. Isolects of NWB exhibit lexicostatistical cognation at the 68 percent level; the group appears highly discrete. The NWB includes Siang, Dohoi, Ot Danum, and several varieties of "Murung". NWB isolects are spoken in the hilly, upper drainages of the Barito, Kapuas, Kahayan, and Katingan rivers of Central Kalimantan, and in the upper drainages of the Melawi and Pinoh rivers in West Kalimantan.

6.0 Barito-Mahakam Group (BM)

NG 12. The numerals for 'two' (*raga*) and 'eight' (*kalukn*) are innovative and distinctive; as mentioned above, the BM form for 'six' (*hagat*^{n}) is probably cognate with the SWB (LG 5.1) form; the BM for 'nine' (*[sa] tiatn*) is probably cognate with the SWB form *jalatien* and the forms for 'nine' appearing in the isolects of the Kayan-Kenyak group (LG 10.0). So far, Tunjung and Ampanang (see p. 13 above) are the only isolects assigned to the BM group; they are spoken in the south-central Mahakam River region of East Kalimantan.

7.0 Land Dayak Group (LD)

The Land Dayak numerals, NG 13, are fairly distinctive, generally exhibiting phonological variants of *ijo* 'seven' *ma(h)i* 'eight', nad *pire* 'nine'; many of the LD isolects exhibit a distinctive innovative lexical form *sim(a)ung* for 'ten'; a few of the LD isolects (e.g., Ribun, Pandu, Sanggau, Jongkang, and Semandang) exhibit an intervocalic /k/ in their *dukah* or *dukoh* reflexes of 'two' reflecting an intervocalic velar stop (*[de] gwa*]) are exhibited by some of the isolects of the Rejang-Baram Group [LG 9.0] such as Bintulu, Lahanan, Kajaman, and Bakatan, which suggest a genetic relationship between the LD and Rejang-Baram groups). LD is innovatively distinctive in that PAN *1 is reflected in most LD isolects by /r/; thus LD exhibits *taru(x)* 'three' and *rima (x)* 'five'. Blust phenomena appear to be reflected in LD isolects; the evidence is spotty with regard to reflexes of PAN *b, but most LD isolects exhibit differential reflexes of *j in the terms for 'nose' (*unugn, undukn*) and 'paddy' (*padi,*

podi). The LD isolects include Lara', Lundu, Singhi,Kuap, Beta, Bukar Sandong, Sau, Berang, Karangan, Jagoi, Sentah, Binyadu', Ribun, Pandu, and Sanggau. LD isolects are spoken in the Sambas, Landak, and Sanggau-Sakayam regions of West Kalimantan, and in Sarawak's First Division. The attributes of the LD group as a whole are fairly distinctive, making it quite discrete vis-a-vis non-LD languages. However, internally there is a fair amount the various isolects, so that some internal lexicostatistical cognate percentages fall below 50.[24]

8.0 Apo Duat Group (AD)

This group contains Kalabit, Lun Daye, Lun Bawang, and closely related dialects. Because of the difficulties associated with the use of appellations such as "Sarawak Murut" and "Southern Murut" that have been applied to this group of dialects heretofore[25], Prentice (1972:154) has suggested that a suitable alternative be created. I suggest calling this group Apo Duat, after the range of hills on the Indonesian-Sarawak border that divides the major areas inhabited by speakers of these dialects. "Apo Duat" is connotatively neutral, does not give precedence to one constituent subgroup over another, and has not already been used in a way that might cause confusion.

Apo Duat isolects are associated with NG 27. Some apparently innovative lexical forms common to the AD group are variants of , e.g., *rudap* 'sleep', *ni(') ir* 'see', *(i) yur* 'tail',- *buda* 'white', and -*birar* 'yellow'. Apo Duat is quite discrete lexicostatistically; it is internally cognate at the 70 percent level; 52 ia the highest external cognate percentage. Apo Duat, or at least some dialects thereof, is apparently quite conservative with regard to preserving a full inventory of Blust phenomena that affects the reflexes of both PAN *b and *j, as well as other reflexes. On the other hand, the group's isolects are quite innovative, in that, with the exception of those affected by Blust phenomena, the reflexes of all five PAN protophonemes, *j, *D, *d, *Z, *z have merged with /

TABLE 4

	Long pala Lun Daye	Pa'Omor Kalabit	Batu Patung Kalabit	PaMada Kalabit
hand	*ticu*	*tidʰtu*	*tisu*	*titu*
nose	*icuŋ*	*idʰtuŋ*	*isoŋ*	*ituŋ*
paddy	*fade*	*pade*	*pade*	*pade*
name	*ŋadan*	*ŋadan*	*ŋadan*	*ŋadan*
hair	*apuk*	*abʰpuk*	*puk*	*puk*
water	*apa'*	*abʰpa*	*pa'*	*pa'*
stone	*batu*	*batuh*	*batuh*	*batuh*
ashes	*abu*	*abuh*	*abuh*	*abuh*
four	*afat*	*apat*	*pat*	*pat*
ten	*fulu'*	*pulu'*	*pulu'*	*pulu'*

d/ (AD). Given the amount of lexical homogeneity exhibited by AD isolects, it is notable that several phonologically distinguishable dialects are discernible of (e.g. table 4).

On phonological and lexical grounds, Apo Duat can be divided into two immediate subgroups.

8.1 Kalabitic subgroup (K)

This group contains the isolects spoken in the various Kalabit settlements in the upper Baram, Akah, and Tutoh rivers in Sarawak's Fourth Division.

8.2 Sesayap-Trusan subgroup (ST)

This subgroup contains isolects of the so-called Lun Daye and Lun Bawang varieties, together with Adang, Trusan, Tabun Treng, Kemaloh, and, probably, Sa'ban.[26]

9.0 Rejang – Baram Group

This group includes most of the isolects that have, at one time or another, been termed *Milanau*, plus a few others. From the standpoint of classification, it represents the most difficult set of languages to deal with. The subgrouping given here is quite provisional, and it is assumed that taxonomic relationships within and without the group will be changed, perhaps drastically, as our analytic focus gets sharper. Bintulu is the most likely candidate for reclassification; I have assigned it to the Rejang-Bintulu subgroup for reasons given below, but on other grounds (e.g., a form *ebba'*, for 'water' that is cognate with the forms in the Baram-Tinjar, rather than with the *(d) anum* forms common to the Rejang-Bintulu, Lower Rejang, and Rejang-Sajau groups) might have been placed in the Baram-Tinjar group, or placed in a one-member subgroup coordinate with the other Rejang-Baram subgroups.

9.1 Baram-Tinjar subgroup (BT)

NG's 14, 15, 16. This group, like the others that we will be considering in the rest of the paper, exhibits a fair amount of lexical and phonological variability. However, most of the members of this group exhibit Blust phenomena with regard to differential reflexes of both PAN *b (e.g., *abo* 'ashes' vs *tefo* 'sugarcane' in Lelak; *puk* 'hair' vs *bitoh* 'stone' in Berawan) and *j (*cuŋ* 'nose' vs *naran* 'name' and *parai* 'paddy' in Berawan; *rauwa* 'nose' vs *adin* 'name' and *padai* 'paddy' in Long Kiput; *nduŋ* 'nose' vs *adan* 'name' and *padi* 'paddy' in Tutong). With the exception of Tutong, all the members of this group exhibit the same reflexes of *j in the terms for both 'nose' and 'day'/'sun' (e.g., *cun* 'nose' vs *mata ciu* 'sun' in Long Kiput). In addition, all members exhibit an intervocalic labial obstruent (e.g., b, v, f) in the term for 'two' (e.g., *debe* in Lelak, Dali, Miri, and Narom; *dibeh* in Balait Jati, *lebe* in Long Pata; *duve*

(h) in the Berawan from Batu Belah and Long Jegan; *dẹfwih* in Long Kiput; *dẹpwẹ* in Berawan of Long Tisam). The members of this group include, with some further subgroupings given:

9.1.1 Lelak and Dali (NG 14); Narom and Miri (NG 16).

9.1.2 Balait Jati, Lemiting, Long Kiput (NG 14). This subgroup does not appear to exhibit Blust phenomena with regard to reflexes of PAN *b.

9.1.3 Tutong (NG 14). The form for 'two' is *duo (h)* in this isolect.

9.1.4 Berawan and Long Pata (NG 15); Batu Bla (NG 14).

These isolects are all spoken in the Baram-Tinjar region of Sarawak's Fourth Division, and in adjacent areas in Brunei.

9.2 Rejang-Bintulu subgroup (RB)

NG's 14, 16, 17, 18, 19. With the exception of Lahanan, the members of RB exhibit Blust phenomena with regard to differential reflexes of PAN *b (e.g., *abo* 'ashes' vs *tebau* 'sugarcane' in Bintulu; *ivu* 'hair' vs *batu* 'stone' in Bukut). However, none of the members of this group appear to exhibit Blust phenomena with regard to PAN *j; in each isolect, the reflex of PAN *j is the same in the forms for both 'nose' and 'paddy' -- 'name' (e.g., *urəŋ* 'nose' vs *parai* 'paddy' and *(n) aran* in Kajaman and Bintulu). Members of all RB subgroups exhibit labiovelar consonant clusters in the term for 'two' (e.g., *dẹgwa* in Lahanan, *gwa* in Bintulu, *dugwo* in Bakatan, *dugoh* in Bukutan). The RB reflexes for 'two' suggest a possible relationship with the Land Dayak group (LG 7.0), some members of which also exhibit a velar consonant in cognate forms (see p. 23 above). If the forms for 'eight' in RB *(marai)* and LD forms (*mahi'* in Bukar, Lara'; *mai'* in Sentah, Sanggau) are proven to be cognate, this would give further evidence of an immediate Land Dayak/Rejang-Baram connection. The members of the RB subgroup include:

9.2.1 Bintulu (NG 16).

9.2.2 Lahanan (NG 17).

9.2.3 Kajaman, Sekapan (NG 17).

9.2.4 Bukutan, Punan Batu (NG 17); Bukut (NG 18); Bukitan, Bakatan (NG 19); Ukit, Beketan, Punan Busang, Sru (no NG).

9.3 Lower Rejang subgroup (LR)

Ng 17. Lexically, this subgroup seems to fit into the Rejang-Baram group. Lexicostatistically, it seems to articulate with the other Rejang-Baram subgroups at the 60 percent cognate level. On the other hand, members of the LR groups seem to exhibit no evidence of Blust phenomena (e.g., *bok* 'hair' vs *batu* 'stone,' and *udon* 'nose' vs *padai* 'paddy' in Mukah Milanua), nor do they exhibit either labial or velar (e.g., *dua* 'two' in Mukah). Thus, the position of the LR isolects in the classification is problematical. The LR isolects in-

clude:

9.3.1 Rejang Milanau, Mukah, Teh, Siduan, Matu, Oya.

9.3.2 Kanowit.

9.3.3 Tanjong.

LR isolects are spoken in Sarawak's Third Division, along the coast from Balingian in the north to the mouth of the Rejang in the south, and along the lower course of the Rejang.

9.4 Rejang - Sajau subgroup (RS)

NG's 20, 21. Like the members of the Rejang-Bintulu subgroup, RB isolects exhibit Blust phenomena with regard to reflexes of PAN *b (e.g., *ẹ̲hok* 'hair' vs *b̲atu* 'stone' in Sajau Basap, and *ẹ̲vua* ''hair' vs *b̲ato* 'stone' in Punan Biau) but not with regard to reflexes of *j. The members of this group appear to share some distinctive lexical innovations: 'bird' *(jani/jane)*; 'snake' *(asei/esai)*; 'fish' *(baso/basu)*; 'mountain' *(tuguŋ/tugul)*; 'white' *(bunya'/mahunyak)*. Lexicostatistically the group appears to be fairly discrete. Internally, the group is related at about the 72 percent cognate level; externally, RS appears to articulate with other Rejang-Baram subgroups at the 60 percent level. The RS group includes:

9.4.1 Punan Bah and Punan Biau (NG 20), spoken on the mid-Rejang between Kapit and Belaga.

9.4.2 Punan Merap (no NG), spoken on the Bubu' River, a western tributary of the Melinau River in East Kalimantan.

9.4.3 Sajau Basap (NG 21), spoken on the Sajau and Binai rivers near Tanjung Selor in East Kalimantan.

Thus, the languages of this subgroup appear to span the mid-northern part of the island from coast to coast.

10.0 Kayan-Kenyah Group (KK)

In a recent summary publication, an old statement has been reasserted to the effect that, "Kayan and Kenyah seem to be closely related languages, although the latter is considerably more differentiated than the former" (Lebar 1972:169 citing an unpublished dissertation of Raymond Kennedy, 1935). Blust (1972:13-14) has also suggested a fairly high level taxonomic separation of Kayanic and Kenyahic isolects. This seems to reflect a Sarawak-centric bias, for in Sarawak it is true that the dialectal variation exhibited among Kenyahic isolects is greater than that exhibited among Kayanic isolects. However, in many ways, the Kayanic dialects represented in Sarawak are only the tip of an iceberg that has its broad fundament in East Kalimantan. Essentially, all the Kayan dialects in Sarawak belong to a single, rather homogeneous subgroup of a larger linguistic family that exhibits considerable variation, a family containing many languages whose speakers consider themselves to be Kayans

(e.g., Lg Paka' and Lg Blu'u Kayan in the upper Mahakam). It is true that the speakers of other closely or not so closely related dialects may refer to themselves by the term Bahau, or some other appellation (e.g., Penihing). But the fact remains, that Kayanic and Kenyahic isolects exhibit enough similarities, both lexical and phonological, that they ought, for the present at least, to be grouped together. Despite Blust's suggestion (1972:13) that Kenyah should be assigned to and Kayan tentatively excluded from his "North Sarawak Group" on the basis of Blust phenomena, only one of the Kenyah subgroups seems unequivocally to exhibit Blust phenomena, while three others do not. On the other hand, Penihing and Lg Paka' Kayan, which appear clearly to be Kayanic isolects, do exhibit some Blust phenomena. Until the systematic significance oof Blust phenomena in the subgrouping of Bornean languages has been made somewhat clearer, it would seem reasonable to include Kayanic and Kenyahic isolects in the same major taxonomic group, while assigning them to different subgroups on the basis of their undeniable differences.

10.1 Kenyah subgroup (Kn)

Ng 22, 23. All of the subgroups appear to exhibit Blust phenomena with regard to differential reflexes of PAN *j (e.g., *nḏuŋ* 'nose' vs *ŋaḏan* 'name' in Lepo Tuking; *ḏroŋ* 'nose' vs *ŋaṛan* 'name' in Lepo Pun). However, only one of the subgroups (10.1.1) exhibits Blust phenomena with regard to PAN *b. PAN *Z is generally reflected by /j/ in Kn isolects in contrast to Kayanic isolects which usually exhibit /s/ (e.g., *ujan* 'rain' and *tujoh* 'seven' in Uma Bem Kenyah vs *uṣan* 'rain' and *tuṣu* 'seven' in Ma'Aging). Kenyah has the following subgroups:

10.1.1 NG 22. This group exhibits Blust phenomena with regard to differential reflexes of PAN *b (e.g., *ḇok* 'hair' vs *ḇatu* 'stone' in Lp Tau, Jamuk, Malang). This group also appears to exhibit a /t/ reflex for PAN *j in the terms for 'day' (e.g., *ṭau* in Lg Abung, Jamuk). The group includes Jamuk, Kenyah Sambup, Lp La'an, Lp Sawa, Lp Tau, Lp Tukung, Long Abung, Lg Aki, Lg Bangan, Madang, Malang, and Uma Bem.

10.1.2 NG 22. No Blust phenomena with regard to PAN *b (e.g., *bok* 'hair,' *ḇato* 'stone'). PAN *j is reflected by /r/'in' 'name' and 'paddy' in contrast to the isolects of LG 10.1.1 in which PAN *j is reflected by /d/ (e.g., 'name' *haṛan* in Sebop vs *haḏan* in Uma Bem). Lexically, members of this group generally exhibit the form *lahit* for 'day'. The group includes Bah Malei, Lirong, Lg Pokun, and Sebop.

10.1.3 NG 22. Again, no Blust phenomena for PAN *b (e.g., *ḇuuk* 'hari' vs *ḇato* 'stone' in Lg Wat). PAN *D is reflected by /l/ in 'leaf', 'two' and 'blood' where other Kenyah groups exhibit /d/ (e.g.,

'leaf' *ɟa'un* in Lg Wat vs *ɖa'un* in Sebop and *ɖaun* in Uma Bem). As noted above, among the Kenyah subgroups, PAN *j is distinctively reflected by /dr/ in 10.1.3. This group includes Lp Pohun, Lp Pun, and Lg Wat.

10.1.4 NG 23. So far, this Kenyah subgroup has only one member, Uma' Timai, spoken on the Wahau River, a northern tributary of the Mahakam, in East Kalimantan. The isolect appears to be intermediate between Kenyahic and Kayanic. Like Kenyahic, PAN *j is reflected by /nd/ in the form for 'nose' *ndoh*). Like Kayanic, PAN *Z is reflected by /s/ (e.g., 'rain' *uʂan*).

10.2 Punan-Nibong subgroup (PN)

No NG's available. This group appears to be intermediate between Kenyahic and Kayanic isolects. No. Blust phenomena is exhibited. It differs from Kenyahic in that PAN *z is reflected by /s/ rather than by /j/ (e.g., 'bad' *ʂa'at* in Punan Lusong vs *ɟahat* in Lp Tau); however, some Kayanic isolects also reflect /j/ in this case (e.g., 'bad' *ɟa'a'* in Ma'Aging), while others exhibit /s/ or /c/ (e.g., 'bad' *ca'at* in Penihing, *ʂi'it* in Lg Paka' Kayan). PN appears similar to Kenyahic in that PAN *Z in generally reflected by /j/, which is not the case in Kayanic (e.g., 'seven' *tujak* in Punan Gang vs *tujoh* in Uma Bem but *tuʂu* in Ma'Aging). The lexical form for 'rain' (e.g., *to* in Nibong, *ta* in Speng) contrasts with the forms in Kenyahic and Kayanic (e.g., 'rain' *ujan* in Uma Bem, and *uʂan* in Ma'Aging or *oaŋ* in Penihing). Members of the PN group include Bok Punan, Nibong, Punan Gang, Punan Lusong, Punan Silat, and Speng.

10.3 Kayanic subgroup (Ky)

NG's 24, 25, 26. Generally PAN*Z is reflected by /s/ in Kayanic, in contrast to /j/ or /c/ in other Kayan-Kenyah subgroups (e.g., 'rain' *uʂan* Uma Poh vs *ujan* Uma Bem). In addition, PAN*j is generally reflected by /r/ in 'nose' (as well as in 'name' and 'padi') where Kenyahic, at least exhibits /nd/ or the lexeme */uŋit/* (e.g., 'nose' *uɾun* Baram vs *ndun* Uma Bem, and *uɲit* Sebop).

10.3.1 NG 24. This might be called Western Kayanic, since the isolects of the group are spoken in western part of the territory where Kayanic is spoken (e.g., in Sarawak, and in the headwaters of the Kapuas and Mahakam rivers in West and East Kalimantan). PAN*j is reflected by /r/ in 'nose', 'name' and 'paddy', and by /d/ in 'day'; PAN *D is reflected by/d/ in 'leaf', 'two' and 'blood'; PAN*d is reflected by /j/; PAN *Z is reflected by /s/; and / PAN*z is reflected by /j/. There are no apparent Blust phenomena. This group includes Baram Kayan, Rejang Kayan, Uma Poh, Uma Blubo, Busang, Ma'Aging, and similar isolects.

10.3.2 NG 24. This group has attributes similar to that of 10.3.1 , except

that PAN*j is reflected by /r/ in 'day' where other Kayanic subgroups exhibit /d/ (e.g., 'day' *haṛo* in Lepak Aru and *hṛau* in Lg hubung vs *ḍo* in Busang). In addition, members of this group exhibit differential reflexes of *D in 'leaf' and 'two' vs 'blood',which appears to be distinctive (e.g., 'leaf' *ḷa'un*, 'two' *ḷua* vs 'blood' *ṛa* in Murik; 'leaf' *ḍa* 'on, 'two' *ḍua* vs 'blood' *ṛa* in Lg Hubung; 'leaf' *itun*, 'two' *ḍua*, vs *ḷa* in Bepak Aru). This group includes Lepak Aru Bahau, Lg Hubung Bahau, Murik.

10.3.3 NG 25. This group is rather far out phonologically and lexically, though its members still appear to belong to Kayanic given the limited criteria we have been working with. In the forms for 'two' the isolects of this group exhibit an intervocalic velar consonant /g/ (e.g., *ago'* in Segai, *hgau'* in Lg Bentuk Modang) which may indicate linkages with Rejang-Bintulu (LG 9.2) and Land Dayak (LG 7.0). The members of this group include Lg Glat, Segai, Lg Wai Modang, Lg Bentuk Modang. These languages are spoken in the upper parts of the Kelinjau, Mahakam, and Pungean rivers in East Kalimantan.

10.3.4 NG 26. This group exhibits Blust phenomena in its differential reflexes of PAN *b (e.g., *iṿo'* 'hair' vs *ḅatu* 'stone' in Seputan). In addition, it exhibits differential reflexes of PAN *Z in the forms for 'rain' vs 'seven' and 'far' (e.g., 'rain' *o̱ah* vs 'seven' *tiṣu* and 'far' *moṣu* in Penihing). In addition, PAN *j is reflected by /f/ (zero) in Penihing and Seputan. This group includes Lg Paka' Kayan, Lg Blu'u Kayan, Penihing, Seputan, and Penyabung. These isolects are spoken in the upper reaches of the Mahakam River East Kalimantan.

Notes

1. Part of the field work upon which this report is based was supported by research grants from the Ford Foundation Foreign Area Training Program (1962-64) and the American Council of Learned Societies (1969-70).
2. For example of the use of Bornean languages in a broader comparative Austronesian context, *see* Dyen 1953a, 1956.
3. On the Barito languages, *see* Hudson 1967b, pp. 11 ff.
4. The term isolect denotes a language isolate of undefined scope. It may, for instance, be a language, a dialect, an ideolect, or style; it may be named or unnamed. When collected, each corpus should, of course, be identified as to source; language name applied to it by its speakers; and information on the informant's sex, age, village, language of orientation,

other languages spoken, and other relevant information that will help to delimit the scope of the isolect. Whether a particular isolect is a language or a dialect in the technical sense can be determined only by comparison with and in reference to one or more other isolects. For more on "isolect" *see* Hudson 1967b:12.

5. On the putative Southeast Barito-Malagasy relation, *see* Dahl 1951, and Dyen 1953b, 1965. On the classification of Malagasy isolects, *see* Vérin, Kottak, and Gorlin 1969.
6. On early Sanskritic inscriptions in Borneo, *see* Coedès 1968 : 18, 52, 282. *See* also O'Connor 1967.
7. On Malayic Dayak isolects, *see* Hudson 1970 and Kalom and Hudson 1970.
8. For a brief description of subgrouping, *see* Greenberg 1957; for a more detailed treatment, *see* Hoenigswald 1960.
9. For the most extensive bibliographic list of published material on Bornean languages up to the time of its appearance, *see* Cense and Uhlenbeck 1958. More recently published lists include Hudson 1967b, Hudson 1970, and Clayre 1970.
10. George Appell, Beatrice Clayre, Iain Clayre, Bishop Dennis Galvin, Joseph Ingai, Tuton Kaboy, Benedict Sandin, Clifford Sather, and Patricia Whittier have been extremely helpful in making available to me language material they have collected.
11. For an example of an historical analysis making use of documentary resources, oral traditions, and linguistic classification, *see* Hudson 1967a.
12. For background on this approach, *see* Hymes 1960. For the discussion and application of this approach in the realm of Austronesian classification, Dyen 1965; for Borneo, *see* Hudson 1967b and Prentice 1970.
13. For a more detailed presentation of the procedure, *see* Hoenigswald 1960, expecially pp. 119, 132.
14. A SWL for Tunjung can be found in Hudson 1967b: 84-90.
15. Siang and Ma'anyan word lists are given in Hudson 1967b: 70-96.
16. See the section of Rejang-Sajau below, Language Group 9.4.
17. The PAN forms for 'nose' and 'sun' are those suggested by Blust 1969: 95.
18. **tuZu* 'seven' is my own reconstruction. As far as I know, it is not a PAN form, but it may be a proto-Western Austronesian (PWAN) form. The PAN form **pitu* 'seven' is reflected in only a few Bornean languages (i.e., Bajau, Sulu, and Lanun of the Idahan group, and in the isolects of the Southeast Barito and Northwest Barito groups).
19. Needless to say, Idahan Murut isolects should not be confused with those of the so-called Sarawak Murut or Southern Murut group; the latter, which includes the various dialects of Kalabit, Lun Daye, Lun Bawang, is

termed the Apo Duat group herein. There does not appear to be any immediate linguistic relationship between the isolects of Apo Duat and Idahan Murut.

20. The Tutong of the Idahan group, sometimes termed Tutong Dusun or Tutong Bisaya, should not be confused with the Tutong isolect that belongs to, and exhibits diagnostic attributes of, the Rejang-Baram group.
21. *See* Hudson 1967b for a more complete discussion of the various Barito subgroups.
22. On the Southeast Barito-Madagascar relationship, *see* Dahl 1951 and Dyen 1953b.
23. *See* Hudson 1967b:7-8, 27; Cense and Uhlenbeck 1958:42-45.
24. *See* Hudson 1970 for more on Land Dayak.
25. The term Murut is pejorative and is not used by any Bornean groups to refer to themselves. In addition, there is no demonstrated immediate genetic relationship between the isolects of the Apo Duat group and those of the Murut-Tidung (3.1) subgroup of Idahan. Therefore, we might just as well dispense with the pestiferous term altogether.
26. On the Sa'ban situation, *see* Clayre 1970.
27. Note that Tunjung (LG 6) and Segai, Long Glat, and Modang (LG 10.3) also exhibit forms for 'two' containing an intervocalic /g/.

APPENDIX I : SAMPLE SEMANTO-LEXICAL LIST

SWL/29 'hair' **buSek*

bulu:

alau	Tunj
balau	Kps, Ktng, Bmng
balo	D. Mlng, Law, Tab, Byn
balo'	Psr
baloh	Ben
balou	OtD-1, Mur-2
baλou	OtD-2, Doh-1,2
baλo	Siang, Mur-1
barou	OtD/BW
walo	D.Dey-1
walou	D.Dey-2
wilua'	Bgs
wulu	Mny, Paku, D.Wit, Smhm
βulu	Mlgy
bulu	Ukt/R, Baktn/R, Bektn, Miri/R, Bug, Sby/R, Lmnk, LgAki, LpPhn
bulau	Knwt/R, Dali, Lmt, Brwn/R, Kaj/R
vulau	Bin/R
bulou	LgKip/R
bulun	Nib, P.Mer, (Mrk/R)
bu'un	Baj/Sa, Baj/H
bulo	Muka/R, Lelak, LgPat
bulõ	BtBl, U.Blb
belutok	Buktn, Baktn/R-2
buhtikok	Baj/Sc
buruh	Bkr-1,2,3,4/H, Bkr/M, Bkr/E
burõh	Bkr/R
buruhʊ̄	Myn, Jong
buɣuʊ̄ baa'	Pnd
buhubo	Rbn

buk/bok:

buk	Man., LgAtp, Bus/Ba, Bus/H, LgHub, Ma'Ag, LgTeb, Skpn/U, RejM1, Mlh/H, Pari, Sang/R, Kant, Tbn, BU/Sw

abuk	Tgl/H, Tgl/L, BalD, TutD, Ting, Bis-1,2/H, Lar/H, Bin, Tid, Ses, Bek, Kdy/R, Bis/L-R, Ken/Rt, Pds, Pel, Rund, Teng, Tenm, Kui,Mrd, Tuar/Rt, Dlt
obuk	Sru, Pap/Ros, Pap/Rt, Bang, Lot
tobuk	Pnmp/Rt, Pnmp/C, Tamb/C, Lab, Min, Krm
tokobuk	Ran
tabuk	Put, Tamb, Ida', Kiau, Temp/Rt, Bnd
tobok	Rung
rebok	Sru
remo	Jav/Kr
bok	Idah, B. Mal/U, Spng, P.Lus, P. Gng, Lir, Sbp/H, Kay/Bu, Kay/U, U.Poh, U.Bal, RejKy, Mrk, Lah/U, Muka/SMJ, Sid, Oya, Matu/R, Bukutn, Matu/Ai, Lah/H, Lund, (Mlh/R), Mual, B.Kay, Bah, Tbn/R, Adng, Trsn, Lan
abok	Tgl/R, Trkn, Bis/K, Lar/E, Lar/Ch, Bis/R, Ken/Bab, Kim/Lr, Bu/R, Dus/C
ubok	Snt
ebok	Bin/G
ibo	Pnhng/Ba
bõk	LpPun, B. Mal/R, Sbp/R, LgPok, LpSaw, BalT
bō̃k	Bok.P.
boõk	(Kls/R)
bouk	Kaj/K, Skpn/K
boh	Tanj/U, Mlh/U
bo'	Kinj, Sby/H
abo'	Bik
bɔ̀'	Skpn/C
bu'	U.Tim, Blng/Be, Tmn
ubu'	Knj
ok	Kls/R
uak	Seg
uuk	Kls/H

buuk	LgWat, Knwt/H
bwuk	Pangasinan
buut	Sin-3
buok	Tanj/R, Sem/BW, Temp/Sw
buoh	(Lan)
buak	Jag/H, Sin/E
bu^ k	Teh, Suh
bua'	Sib
bu^'	Kaj/H, Muka/H, Temb
buhok	Sul/R, Tagalog
bohok	Sul/Ha
bu'uk	Sin-2, Ban, KNY
bu'u'	Sin-1
hok:	
ehok	Bsp
buhok	Sul/R, Tagalog
bohok	Sul/Ha
hu'	Miri/G
fuk/fok:	
fuk	Ln Bw-2
fok	Nar
puk/pok:	
pok	Lg Bng, RejKn, LpTau, LgPal, Jmk, LgAbng, Brwn/G, Klbt-1, Tbn/K, B. Kn, Tut/R, Klbt/D
ipok	P. Bat
põk	Mad, Mlng, Brng
fok	Nar
fuk	LnBw-2
puk	U.Bem, LpTuk, Brwn/H, Tut-1, Klbt-3
puek	Sab, Sbn
apuk	LnDy-1, 2/H, (Trsn), Kmlh
^puk	LnBw-1
bpuk	Tut-2
abpuk	LnDy-3
^bpuk	Klbt-2,4

i βo/iwo:

ibo	Pnhng/Ba
i βo	Pnhng/H
i βo'	Sptn/Mahky
iwo	Pnhng/BW
iwo'	LgBlu
uβok	Mod/H
ivok	Lsm, Lug, P.Ba/R, P.Ba/U
ivuk	P. Ba-1/C
wook	Mod/R
i βu'	Bkt
i βua'	P. Bi
ivue'	P. Ba-2/C

rambut:

buut	Sin-3
rumbut	K. Mal, Kyng, Mlh/R, Smb. Mal, Bjr, Tam, Lbhn, Dlgn, Jav/Ng, Ind
ambut	Kdy - 2/H
ambud	Kdy - 1/H
γ ambut	Sang/H, Sem/H
γ ambu^t	Sbr
γ amut	Snt. Mal
birumo'	Smd
iruk	Ukt/C
rebok	Sru
- rumo'	Smd

suk:

suk	B1Jt
su^'	LgKip/H
soöp	Rej/Lw

APPENDIX II: Numeral Groups

Numeral Group	Taxonomic Group	'seven'	'eight'	'nine'	Other
1	Malayic	*tuju(h)*	*-lapan*	*sam(b)ilan*	*talu/tiga* 'three'
2	Idahan	*tuju*	*walu*	*siam*	*-pulu* 'ten' (LG 3.1)
3	Idahan	*tulu*	*balu*	*siam*	*opod* 'ten' (LG 3.1)
4	Idahan	*turo*	*balo*	*siam*	*mopod* 'ten' (LG 3.2)
5	Idahan	*turo*	*walo*	*siam*	*(m)opod* 'ten' (LG 3.2)
6	Idahan	*turu*	*walu*	*sizam*	*hopod* 'ten'(LG 3.2)
7	Idahan	*tuuh*	*vahu*	*sizam*	*(h)opud* 'ten'; *mutohu'* 'three' (LG 3.2)
8	NE Barito	*turu*	*walu*	*sie*	*jawatn* 'six'
9	SE Barito	*pitu*	*valu'*	*s(i)u(e)i*	*rueh* 'two'; *dime* 'five'
10	SW Barito	*ucu*	*hanya'*	*jalatien*	*jahawen* 'six'
11	NW Barito	*pitu'*	*jalu'*	*sioi/suoi*	
12	Barito – Mahakam	*tuju'*	*kalu(k)ng*	*(sa)tia(t)n*	*raga* 'two'; *haga(t)n* 'six'
13	Land Dayak	*(t)ujo*	*mo(h)i*	*pire*	*dukoh/dukah* 'two' *taru(h)* 'three'; *rimo* 'five' *semung* 'ten'
14	Baram-Tinjar	*tuju/tuco*	*mar(a)i*	*(su/ma)pai/pi'an*	*debe/defwa/deve* 'two' (LG 9.1)
15	Baram-Tinjar	*tuso*	*marai*	*jili-pe*	*lebe/depw* 'two' (LG 9.1.4)
16	Rejang-Baram	*tuju*	*madi*	*sup(a)i*	*debe/gwa* 'two'
17	Rejang-Baram	*tuju*	*ayan*	*(j/m)ulan*	
18	Rejang-Baram	*kilit*	*kenai*	*kenulan*	
19	Rejang-Bintulu	*kidi'*	*kenai*	*kenulan*	*dugwo* 'two'
20	Rejang-Baram	*tusu*	*eyan*	*julan*	
21	Rejang-Sajau	*tusu*	*walu*	*siam*	(LG 9.4.3)
22	Kenyah	*tujuh(h/k)*	*aya(h)*	*(t/p)ien*	
23	Kenyah	*tusu*	*aya*	*pi (')an*	(LG 10.1.4)
24	Kayan	*tusu*	*(s)aya*	*(p)itan*	
25	Kayan	*(t)su*	*ti-jau'*	*(ji/si)ti(e)n*	*a(ng)gau'* 'two'; *tlau/kilau* 'three'; *si-wang* 'ten'
26	Kayan	*tucu'*	*hi (') an*	*ti(')an*	*kelau* 'three'; *dimo* 'five'
27	Apo Duat	*tudu*	*(w/y) alo (h)*	*(s)ewa*	*fulu* 'ten'

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THE SYNTAX OF THE ADJECTIVE AND THE NOMINAL CLAUSES IN IBAN[1]

ASMAH HAJI OMAR
University of Malaya

The adjective and the nominal clauses are subordinate clauses. The subordinate clause is defined as a clause which functions as an element of a complex sentence. In deep structure,[2] the subordinate clause which is adjectival or nominal in nature, is dominated by NP[3] of the matrix #S#[4].

ADJECTIVE CLAUSE

The adjective clause always functions as the modifier of NP of a complex sentence. In other words, the adjective clause is an optional component of NP. In deep structure, this clause is the aptional S'[5] which appears in the output of the rule below.

PS1[6] NP → N(S')

The surface structure [7] of this S' is a relative clause which consists of the relative conjunction *ti* or *ke* followed by the predicate phrase. Both *ti* and *ke* can mean who, which, that.

Examples of the adjective clause are as follows:

Exx. (1) (i) *urang ke udah pulai nya akan nuan*
person who already return that cousin you
= The person who has already returned is your cousin

(ii) *utai ke kuning nya enda badas*
thing which yellow that not good
= The one which is yellow is not good.

(iii) *urang ti soldadu tu menyadi aku*
person who soldier this sibling I
= The person who is a soldier is my sibling.

(iv) *jelu ti kesatu nya kering amat*
animal which first that strong very
= The first animal is very strong.

In the derivation of the adjective clause, the transformational rule that applies is the substitution of NP-subject of S' by the relative conjunction *ti* or *ke*. For this transformation to operate, there must be identity of reference between N and subject of S'.

TI-ob[8] N(X-Y) ===> N (Rel-Y)[9]

Condition

(i) X stands for the subject of S'.
(ii) Y stands for any string.
(iii) Identity of reference between N and X.

NOMINAL CLAUSE

Nominal clauses are those which function as NP of a sentence-structure. A nominal clause can always be replaced by a nominal or a nominal phrase. On the basis of their functions in a sentence-structure, nominal clauses are divided into two types. The first type is the *subject clause* which functions as the subject of a sentence. The second type is the *object clause*, which functions as the object of a complex sentence.

Subject Clause

The subject clause is represented by a relative clause as mentioned above. Examples of sentences with the subject clause are as follows;

Exx. (2) (i) *ke udah pulai akan nuan*
who already return cousin you
= The one who had already gone home was your cousin.

(ii) *ke kuning nya enda badas*
which yellow that not good
= The yellow one is not good.

(iii) *ti soldadu tu menyadi iya*
who soldier this sibling he
= The soldier is his sibling.

(iv) *ti kesatu nya kering amat*
which first that strong very
= The first one is very strong.

The sentences above show that the relative clause can stand on its own as NP-subject. For this, NP can have the following phrase-structure rule:

PS2 NP → S'

S' in rule PS1 is a subordinate clause which takes the form of a relative clause. With this in view, then PS2 can be said to be incorporated in PS1. The

output of PS2 is arrived at after certain transformational processes have operated on the output of PS1. This means that the deep structure of the subject clause is N(S'). Hence PS2 represents only a surface structure of NP that is realized by the subjects of sentences in Exx. (2). On the other hand, PS1 represents the deep structure of NP where S' is an optional component. Hence in the derivation of the subject clause, the first transformational rule that applies if T1-ob. The operation that follows is the deletion of N of the output of T1-ob.

T2- ob N(Rel - Y) ⟹ Rel - Y

Next comes the positioning of the relative clause Rel-Y in the subject slot.

If the rules above were to be in reverse order such that the deletion of N comes before the substitution of X for Rel, there is then no mechanism to explain the substitution operation itself.

Both the sets of sentences in Exx. (1) and (2) have the following deep structure:

PM1[10]

The circled N in the phrase-marker above is retained for Exx. (1) but is deleted for Exx. (2).

Object Clause

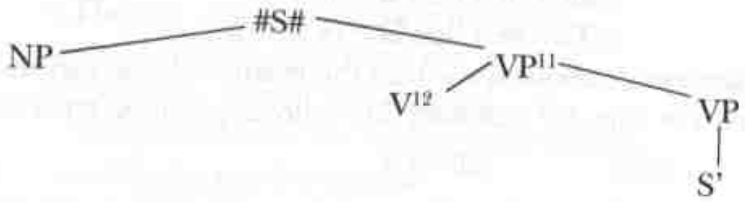
Object clauses occur in #S# whose verb has the feature [+ transitive]. The object clause itself is in deep structure S' which may have Imp (Imperative) or Q (Question) as its component. If neither the imperative nor the question element occurs, then S' is a declarative S'.

The rewrite rule for S' is as follows:

PS3 $S' \longrightarrow \left(\left\{ \begin{matrix} \text{Imp} \\ \text{Q} \end{matrix} \right\} \right)$ - NP - Predicate Phrase

The deep structure of #S# which has an object clause is as follows:

PM2



Hence it can be seen that S' (the object clause) is uniquely dominated by NP.

If S' is declarative, then the transformational process that effects the derivation of a complex sentence with an object clause is the morphophonemic conversion from the deep to the surface structure. This constraint of course, affects only complex sentences with the structure Main Clause – Object Clause, in that order. If the ordering of the clause in the complex sentence is Object Clause – Main Clause, then an optional rule involving the permutation of the two clauses concerned will have to take place prior to the morphophonemic conversion. This rule is as follows:

T3 - opt X - Y ====> Y-X,

where X = Main Clause and Y = Object Clause.

Exx. (3) (i) *kami enda nemu seduai tu belalai*
we not know both this hide
= We did not know these two were hiding.

(ii) *seduai nya ngumbai kami deka ngerebut laki seduai*
both this think we will snatch husband both
= Both of them think we will rob them of their husbands.

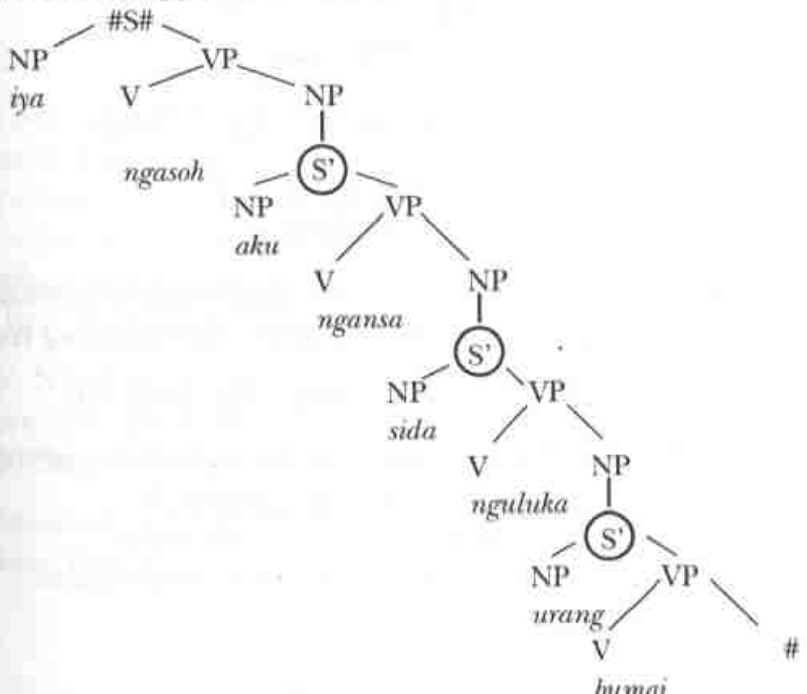
It should be mentioned here that a complex sentence with the category of object clause under consideration more frequently consists of the ordering of it components in the following manner : Main Clause - Object Clause. It seldom occurs with the ordering Object Clause - Main Clause.

Multiple recursion of this category of object clause is quite normal.

Exx. (4) iya ngasoh *aku ngansa sida nguluka urang bumai*
1 2 3
he request I urge they witness person plant-rice
= He requested me to urge them to witness the people planting rice.

The above sentence is mapped out in PM3.

PM3



The object clause which is derived from a declarative S' can also be represented by a relative clause (cf. Subject Clause).

Exx. (5) (i) *iya nadai makai ke masin*
he not eat which salty
= He does not take salty food.

(ii) *iya ngiga ti mansau*
he search which ripe
= He looks for the ripe ones.

As with the subject clause, this type of object clause is in deep structure N (S'), and it is derived by the rules which operate on the derivation of the subject clause.

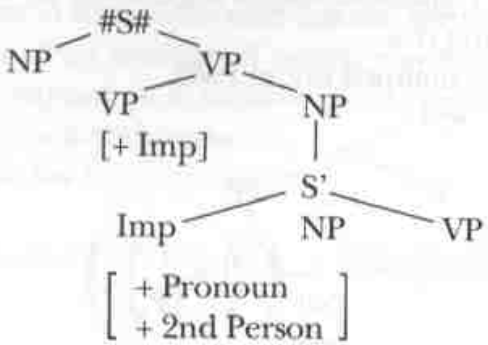
If S' is the object clause whose deep structure consists of Imp as a component, then the following constraints have to apply. The NP of S' has to be marked by the feature $\begin{bmatrix} + \text{Pronoun} \\ + \text{2nd Person} \end{bmatrix}$, and at the same time V of S' has to be marked by [+ Imp]. This means that V has to be represented by the lexical formatives *ngasoh*, "request, command," *minta*, "request."

Exx.(6) (i) *iya ngasoh nuan bejalai*
he command you walk
= He asks you to walk.

(ii) *aku minta nuan datai*
I request you come
= I ask you to come.

The deep structure of Exx. (6) (i) above is as follows :

PM4



When the object clause is characterized by the imperative negative *anang*, "don't", the S' in deep structure consists of the following rewrite rule.

PS4 S' ——> Imp - Np - Neg - VP

The following sentences illustrate the occurrence of such object clauses.

Exx. (7) (i) *iya minta nuan anang bejalai dia*
he request you don't walk there
= He requested you not to walk there.

(ii) *iya ngansa nuan anang mansau wang*
he urge you don't waste money
= He urged you not to waste money.

Anang in the above sentences cannot be replaced by the declarative negative word *enda* or *nadai*, "not". The object clauses above can be made to stand on their own as imperative sentences, as shown below.

Exx. (8) (i) *anang (nuan) bejalai ditu*
=Don't (you) walk here.

(ii) *anang (nuan) mansau wang*
=Don't (you) waste money.

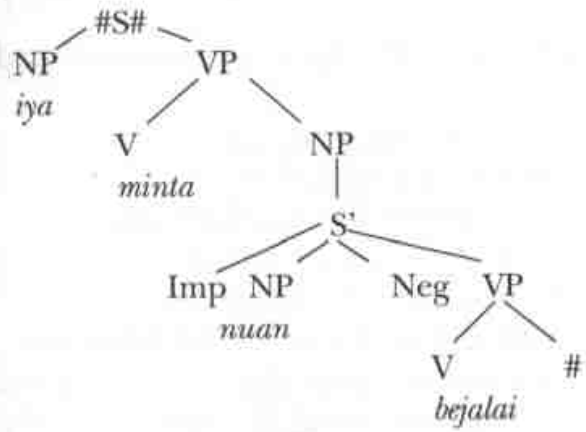
The above sentences have the following as their declarative counterparts.

Exx. (9) (i) *naun enda tau bejalai dia*
you not can walk there
= You cannot walk there.

(ii) *nuan enda tau mansau wang*
you not can waste money
= You cannot waste money.

Exx. (7) (i) above can be represented by the following phrase-marker.

PM5



It can be seen here that in the derivation of object clauses with *anang* (cf. Exx. (7)), two transformational operations have to take place before the morphophonemic conversion. The first operation is the permutation between NP and Neg (T4 - ob), and the second is a transformation which collapses Imp and Neg together (T5 -ob). If the order had been the reverse, it would not be possible to have the morphophonemic *anang*.

T4 - ob Imp - NP - Neg - X ===> Imp - Neg - NP - X,
where X stands for any string.

T5 - ob Imp - Neg - NP - X ===> Imp_{Neg} - NP - X

The object clause whose deep structure is an interrogative S' is introduced by one of these three groups:

i) The interrogative pronoun : *nama* what, *sapa* who, or *ni* which.
ii) The question-word:

demaia	when
lapa	why
katiko	how
kapa	what for
bekeni	how
dini	where
kini	whither
arini	whence

iii) The object conjunction *sekalika* whether.

Group i) and ii) belong to questions which do not require yes-no answer (Q_{wh}), [13] while group iii) belongs to questions with the yes-no answer (Q_{v}) [14].

If the object clause is introduced by the interrogative pronoun (Pro_Q), then the deep structure of the clauses is S' which can be rewritten as follows:

PS5 S'' ——> Np - X,
where X stands for any string.

PS6 NP' ——> Pro_Q

Examples of sentences with object clauses introduced by Pro_Q are as follows:

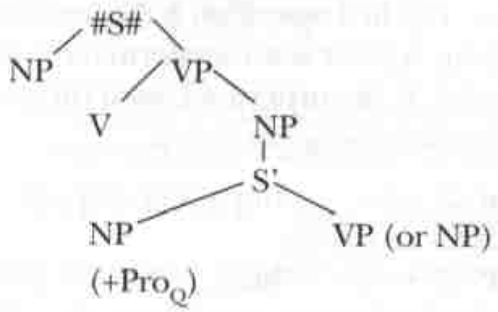
Exx. (10) (i) *iya nanya nama utai nya*
he ask what thing that
= He asked what that thing was.

(ii) *iya enda nemu sapa apai iya*
he not know who father he
= He did not know who his father was.

(iii) *sida nanya ni anak aku*
they ask which child I
= They asked which one my child was.

The deep structure of the sentences above can be represented as follows:

PM6



It is obvious that the only obligatory transformation that takes place relevant to the derivation of object clauses such as those occuring in the sen-

tences above, is the morphophonemic one. These object clauses are marked with the feature [- passive]. If the object clauses have the feature [+ passive] then a passive transformation has to take place before the morphophonemic conversion.

The object clause which is introduced by the question-words in group (iii) of the above is in deep structure S' which consists of the rewrite rules below :

PS7 $S \rightarrow Q - NP - VP - Adv$[15]

PS8 $Q \rightarrow Q_{wh}$

To derive this type of object clause, a permutation transformation takes place such that Adv is moved forward to be positioned between Q and NP.

T6 - ob Q - X - Y - Adv ===> Q - Adv - X - Y,
where X and Y can stand for any string.

Another obligatory transformation collapses Q and Adv together such that the output of this process is Q [+ Adv].

T7 -ob Q - Adv ===> Q + Adv

The output of the above rule means that Q has the feature [+ Adv]. This feature [+ Adv] is itself marked by one of the following:

[+ Time], [+ Reason], [+ Instrument], [+ Purpose],
[+ Manner], [+ Place] , [+ Direction].

PS9 Q [+ Adv] Q $\begin{bmatrix} + \text{Time} \\ + \text{Reason} \\ + \text{Instrument} \\ + \text{Purpose} \\ + \text{Manner} \\ + \text{Place} \\ + \text{Direction} \end{bmatrix}$

The surface structures of the output of PS9 are the question-words given in group (iii). Examples of this type of object clause are :

Exx. (11) (i) *ia nanya kemaia kitai menuai*
= He asked when we harvested (our rice).

(ii) *aku deka nemu lapa ia enggai bejako*
= I want to know why she refuses to speak.

(iii) *kami nanya katiko bekejang iya*
= We asked how he went.

(iv) *Kitai nadai nemu kapa iya betelai*
= We don't know what she is whispering for.

(v) *iya nanya bekeni nuan diatu*
= He enquired how you are getting on now.

(vi) *kami nanya dini diau nuan*
= We ask where you live.

(vii) *nuan nadai nemu kini sida bejalai*

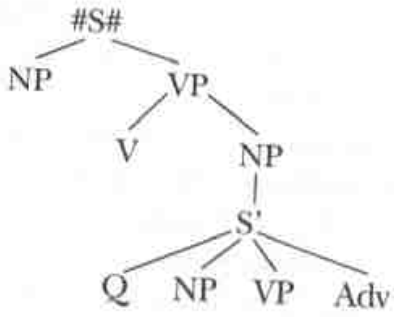
= You don't know where they were walking to.

(viii) *nuan nadai nemu arini sida datai*

= You don't know where they came from.

The deep structure for the sentences above takes the following form.

PM7



If the object clause is introduced by the object conjunction *sekalika* "whether," then the deep structure of this clause is S' whose rewrite rule is as follows:

PS10 $S \rightarrow Q\text{-}X$,

where X stands for any string.

PS11 $Q \rightarrow Q_v$

This type of object clause is illustrated in the following complex sentences:

Exx. (12) (i) *iya nanya sekalika perintah deka meri wang*

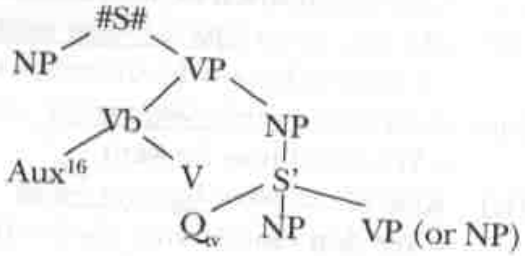
= He asks whether the government will give money.

(ii) *iya deka nemu sekalika nuan guru*

= He wants to know whether you are a teacher.

The following phrase-marker can represent the deep structure of the sentences above.

PM8



The quoted speech can also be considered as object clause with the deep structure as depicted by PS3. In this case, the main clause can occur before or after the object clause. Hence the permutation rule T3-opt applies in the first stage of transformation.

The complex sentence where the object clause is a quoted speech is always marked by the presence of the obligatory quotative word *ko* which occurs in the main clause. It is this quotative word that conditions the placing of a pause between the two types of clauses concerned.

T8- ob $[X\text{-}Y]_{Quot}17 \quad ==> [X\#Y]_{Quot}$

where X and Y stand for any string.

Exx. (13) (i) *api deh nyau padam # pia ko aki bejako*
fire emph. become extinguish # thus Quot grandfather speak
= "The fire has gone out," thus said grandfather.

(ii) *ko bejako iya # menua nuan apin tegap*
Quot speak he # country you not-yet strong
= Said he, "Your country is not yet strong."

(iii) *anang nuan datai # ko iya ngangau*
don't you come # Quot he call
= "Don't come!" he called out.

(iv) *ko nanya urang nya # paya ni nya*
Quot ask person that # swamp which that
= The person asked, "Which swamp is that?"

It is seen in the above examples that quotative word *ko* need not necessarily appear at the beginning of the main clause. The positioning of this word depends on an optional process, that of permutation, on the embedded S'.

The nominal clauses in Iban indicate that in deep structure, NP is either N(S') or S'. The case where NP is N (s') denotes that the bracketed S' is a relative clause whose function is adjectival, and this provides for the relative clause transformation, where N may be deleted. This type of NP can take the form of a subject or an object clause. The relative clause transformation does not apply to other cases of nominal clauses such that NP uniquely dominates S'. This second type of NP only functions as the object of a complex sentence.

Notes

1. This paper is based on my own work, *The Iban Language of Sarawak: A Grammatical Description*, Ph.D. dissertation submitted to London University, 1969.
2. Deep Structure = the underlying syntactic relationships of a sentence.
3. NP = noun phrase.
4. #S# = sentence; more specifically matrix sentence.
5. S' = embedded sentence (a sentence which functions as a constituent of another sentence).
6. PS = phrase structure.
7. Surface Structure = the sentence as it appears in speech.
8. T= transformational rule (a rule which changes the order of the constituents of a sentence, deletes constituents, or adds constituents).
9. Rel-Y = relative + some string Y.
10. PM = phrase marker.
11. VP = verb phrase.
12. V = verb.
13. Q_{wh} = question word; examples: who, what, where, why, when, etc.
14. Q_{v} = transitive verb.
15. Adv = adverb.
16. Aux = auxiliary verb.
17. Quot = quotation.

GRAMMATICAL AND SEMANTIC GROUPINGS OF MELANAU NOUNS[1]

IAIN F. C. S. CLAYRE
Edinburgh, Scotland

"Culture does not consist of things, people, behaviour or emotions, but the form or organization of these things in the minds of the people."

Ward H. Goodenough (1957)

This paper describes the noun classifiers of one major dialect of the Melanau language, discussing their use in quantifying and as noun substitutes in anaphoric reference. Particular attention is drawn to their specialized use in relative clause construction in contrast to more general relative pronouns. Folk taxonomies of living things are then examined, especially those with names having the compound form generic-superordinate-plus-specific, to gain some idea of how Melanau categorize their world. Particular interest is focused on the borders between well-defined groups, where problems of classification arise for the native speaker.

In most ethnographic studies, an observer outside the culture under observation describes his observations in a language alien to the culture for the benefit of others outside the culture. Unless he is satisfied with an entirely "hocus-pocus" framework of description, he is searching for the ordered patterns of activity which exist within the culture so that the resulting description will reflect those emically structured patterns and not merely an arbitrary arrangement. At every stage of the observing, analyzing, and describing processes, a related translation process takes place, analogous to that from one language into another, and every translation introduces some potential or actual distortion. Many rigorous disciplines may be enforced to limit these distortions – the monolingual approach (Nida 1946) is one specially applicable to linguistic studies – but the risk is always present. Any ordered description involves interpretation, and every interpretation involves personal judgements and bias.

Language is one of the more highly structured forms of patterned human

activity (Pike 1954), and tends to represent a culturally efficient coding of the cognitive system of its speakers (Frake 1962). This makes it one of the most useful channels into the minds of the people, the cradle of the culture. One of the primary functions of language is the naming of things (Brown 1958:5); and, as a part of the mental process of their speakers, languages tend to categorize the referents of those names into groups (Miller 1956). In the grouping of nouns,[2] therefore, we may expect to find some reflection of the organization of thoughts about the world locked into the culture of the society under observation.

Nor is it only in contrast sets in a semantic domain that culturally relevant groupings are to be found. The forms of a language impose on its speakers constraints on the way in which ideas may be expressed– and therefore, presumably, thought about (Lyons 1968:351) – so that grammatically determined word groups also are a part of the linguistic framework which supports the fabric of the culture.

Two structurally different sets of nouns, which also manifest different taxonomic systems, deserve particular attention. The first is the set simple roots– such as *daat* 'sea,' *kuyad* 'monkey,' *ngai* 'size,' *xa'ib* 'sago-bark' – which, unmarked for number, case, or gender,[3] manifest a system of classifiers similar to–if less extensive than– those described for Chinese (Chao 1948), Thai (Haas 1942), Burmese (Hla Pé 1965, Burling 1965), Tarascan (Friedrich 1970), and others. The second is a set of compound nouns having the form generic-superordinate-plus-specific name such as *bua' balek* 'fruit banana' and *ikan tekilih* 'fish fresh-water eel,'[4] in which the generic name is "of great importance as a classifier itself" (Worsley 1953). Divisions of the first set are largely grammatical, and general tacit agreement exists among Melanau speakers as to membership of the individual classes. The second set is subcategorized into contrast sets on semantic grounds, and predictably there is much more divergence of view as to just where the category divisions come.

GRAMMATICAL GROUPING

Among the simple roots, a distinct subset of proper nouns is distinguished from common nouns by being completely identified in their context without the need for the identifying markers *ih* 'this' or *in* 'that,' much described by Roger Brown for English (1958:85).[5] These proper nouns are further subcategorized along the important axis Animate: Inanimate according to their collocation with process or state verbs, and by the pronouns by which they are represented in anaphoric reference discussed below.

Animate proper nouns may be represented by any of the personal pronouns *akou* 'I,' *ka'au* 'thou,' *luin* 'they (unspecified number)' etcetera, or by the set of vocatives used to avoid second person direct reference[6] such as *pa'* 'father,' *ma'it* 'brother-in-law/sister-in-law,' *tawkei* 'shopkeeper.' They may en-

ter into construction with such verbs as *makau* 'walk,' *piker* 'think,' *kaju* 'go upriver' and so forth. Semantically, animate nouns are all human, and are spelled with a capital letter, as *Tugau* (a cultural hero not unlike Robin Hood) and *Matali'* ('Mohammed Ali,' a Malay princeling not unlike the sheriff of Nottingham).

In fables, which form a considerable part of the corpus of data on which this study is based, nonhuman animate nouns may be effectively recategorized, permitting the predication of human actions and emotions, and the lack of their normal appropriate generic category term:

"Singed	*kekaput"*	*sau*	*Tejali*
remember	Cuckoo	sound	Hornbill

'"Think of Mr. Cuckoo," said the Hornbill.'

Inanimate proper nouns are semantically restricted to names of places, and are represented in pronominal reference by the static deictic adverb *inan*, 'there, yonder.' All predications about these inanimate nouns are static, not dynamic:

Sibau	*jau'*	*angai*
Sibu	far	very

'Sibu is a long way away.'

Common nouns are distinguished from proper nouns by being incompletely specified, denoting classes of items which may be further individualized and described in modification phrases of varying complexity. By their cross-classification with membership of the verbal and adverbial distribution classes, a subset of common nouns is distinguished as abstract rather than concrete.

Abstract nouns may not be quantified or represented by pronouns. Such predications as may be made about them are equative, giving a verbless clause structure:

ngai	*nyin*	*'ih*	*ngai*[8]
size	he	this	in-size

'he is as big as this.'

ayeng	*salui*	*in*	*pat*	*kaki*
width	canoe	that	four	foot

'that canoe is four feet wide.'

The inventory of abstract nouns includes a subset drawn from the set of quality state verbs such as *ayeng* 'large, breadth,' *baat* 'heavy, weight,' *lalou* 'long, length;' and also a subset whose distribution includes the adverbial "tag" clause endings illustrated above, such as *gai* 'distance,' *ji* 'appearance,' *sau* 'sound,' *tan* 'feeling, manner.'

By contrast, concrete nouns constitute the vast bulk of the set of common nouns, and within this broad group the category of noun classifier is found to operate. The axis Animate: Inanimate again divides the group according to the classifiers used for quantification and pronominal reference and the sub-

sets of verbs with which the nouns may be in construction.

Animate nouns are counted in quantified nominal phrases having the general formula number + classifier + noun, within which the choice of classifier, *lawéh* 'person,' or *apah* 'body,' is appropriate to human or nonhuman animates. All may enter into construction with process verbs (both transitive and intransitive) and may be the subject in focus of causative clauses.[9] Thus:

jelawéh[10]	*ane'*	*umit*	*tiked*	*bawai*
one - cl.	child	small	climb	go-up

'one child climbed up a tree'

The subset of human animates includes such nouns as *bayuh* 'shaman,' *raja* 'ruler,' *sakai* 'friend,' and terms of family relationship as *jane'* 'sibling,' *tua'* 'aunt,' *tipou* 'ancestor.

Nonhuman animate nouns are counted with *apah*, the general term for body, as

duah	*apah*	*payau*
two	cl.	deer

'two deer'

Semantically, these nouns represent the great body of animate beings about which processes and transitive predications can be made. The subset includes many of the superordinate nouns which require further specification discussed below, as *ikan* 'fish,' *mano'* 'bird,' *rou* 'spirit,' and also creatures which occur without the generic term attached, as *asou* 'dog,' '*baya* 'crocodile,' *padek* 'prawn.'

The most voluminous set of common nouns has inanimate referents and is subcategorized into a large number of subsets according to the classifier with which they are counted and pronominalized. One primary division often noted in systems of this sort is into countable and mass nouns (the Dimensioned:Dimensionless dichotomy of Friedrich 1970), which are respectively enumerated and measured. What Friedrich so aptly calls "geometrical semantics" is manifested in the classifiers of countable nouns. I doubt if the list of these important words gathered over a space of some eighteen months is complete, for some appear to have more restricted application than others, and the appropriate context of situation may not have cropped up; but the general outlines of the system will be clear from this partial description.

The quantified nominal phrase has the same formula as that already given for animate nouns, and the choice of classifier is determined largely by the shape of the referent. The range noted includes:

ata' (to which no separate nominal meaning can be given), a "sink" class into which is grouped a variety of objects of less specific geometry than others,[11] along with objects of a general compactness more precisely enumerated with some other classifier. Many of these objects are hollow and round or roughly cubic rather than elongated or flattened, e.g., *agen* `fish trap (variety),' *kuden* `cooking pot,' *kubou*

'house.'

awa' (no separate meaning assigned) defines a class of elongated referents, both discrete objects which may be handled and geographical features of a long drawn out shape, such as: *tukat* 'stick,' *salui* 'canoe,' *likou* 'river.'

bah' side,' is used with objects which naturally occur in pairs, such as *kelepai* 'wing,' '*nyagem* 'hand,' *tebi* 'river-bank.'

belah 'split' with materials in thin sheets, in every agreed case of human manufacture, as *bai* 'loincloth,' *bajou* 'shirt,' *kajang* 'thatching.'

bexéh 'seed' with small compact objects such as *beréh* 'rice grain,' *manek* 'bead.'

be' 'blade' with implements having a flattened surface, but not used (as far as I can ascertain) with naturally occuring flat objects like leaves; the list includes *besei* 'spear-head', *pela* 'paddle', *usid* 'knife'.

leper 'sheet' with materials that are usually folded but may be spread out flat, as *kertih* 'paper,' *surat* 'letter, newspaper.'

usah 'trunk' with timber in some relatively natural or undressed form, still basically a whole tree, including *bati* 'log',' *kayou* 'tree, ' *tengen* 'bole of tree.'

'ou (no separate meaning assigned) with small compact objects larger than those counted with *bexéh* and smaller or more rounded than those counted with *ata'*, such as *batou* 'stone,' *bua* ''fruit,' *teluh* 'egg.'

It will be noted that six of these classifiers have a nominal meaning of their own. The three to which no such meaning can be assigned represent approximately a point (*'ou*), a line (*awa'*), and a volume (*ata'*). This does not correspond precisely with the long: flat: round distinction Friedrich finds in Tarascan and many other languages, but it is an equally geometric classification of the objects in the noun class. While Prentice (1971) is able to assign at least tentative meaning to all the classifiers in Timugon,[12] their range of reference is remarkably similar to those described here. Persons are distinguished from other animates, and both from such shape-specific referent sets as sticklike objects, small round things, flat thin things, threadlike things, potlike objects, and things suggestive of treetrunks. Jakobsen's observation (1958) that the category of shape appears to be a typological universal in grammar gathers weight from the languages of this part of the world. Yet it is noteworthy that while similar shape-defined noun sets are found in Iban (Asmah 1969), Ngaju (Epple 1933), Tidung (Beech 1908), and some of the coastal languages of the Celebes (Boegelin 1965), no trace of such a word classification was found in Dusun, Sa'ban, Kayan, Penan, or any of the other inland languages my wife and I encountered over a five-year period of active research in Borneo.

A further subset of highly restricted classifiers occurs in the data with one and only one head noun, such as *betu'* 'fleck' with *buda' anum* 'foam on wa-

ter', *kap* 'flat piece' with *asu* 'plank', *uteh* 'skien'[13] with *beneng* 'thread' and so on. This list is probably sub-culture-specific, varying between men's and women's speech[14] and from one trade dialect to another.

The list of classifiers in common use is very similar to at least one collection from Peninsular Malay (Lewis 1947), although the word order of the enumeration phrase is different. Lewis also notes more classifiers, of less frequent occurrence, less dependent on geometric shape, and more restricted to members of a semantic field.

Mass nouns are quantified with a number of terms of length, area, volume, weight, or sometimes the price for a quantity, such as *pasou* 'eight-gallon measure' *kati* 'kati weight (about 1- 1/3 lbs), *ika*' acre', and the like , some indigenous and some not. This subset includes such nouns as *guun* 'forest', *nyu* 'oil', *sei* 'wet sago pith', and so on, as:

juxuked *bulu'*
one-node bamboo
'one node-length of bamboo'
telou *pasou* *sei*
three measure sago-pith
'about twenty-four gallons of sago'

As noted by Haas (1942:202) there is considerable cross-classification possible at this point in the taxonomy, since nouns which are proper members of an enumeration set may also be quantified by mass measurement or by arrangement. An example is *padek* 'prawn', which belongs (according to some authorities) in the semantic class *ikan* 'fish,' and the enumeration class counted with *apah* 'body,' yet may also be measured in a number of ways by weight or volume, e.g.;

pat *tenuyh* *padek*
four string prawn
'four strings of prawns'[15]

or in *lunan*, the space between ribs of canoe where the live catch is stored under bottom-boards before landing, and thus a measure of volume widely used among the fishing people.

The quantity units themselves form a set of nouns which take a void classifier place in their number phrase, which is therefore reduced to number + unit noun. They fall into several subgroups according to the means of measurement, as:

length : *bikul* 'reach of one arm', *tajong* 'distance between bends in a river'
capacity : *ketep* 'drop', *bubou* 'fish-trap (variety) full'
result : *pata'* 'slice', '(cf. *memata'* 'slice up') as *jepata' ikan pumai* 'a slice of raw salt fish, '*bam* 'step' (cf. *mebam* 'step over') as *tiked jebam jebam* 'climb one step at a time'[16]

Other individual unit nouns with void classifier position measure time: *lau*

'day', *ta'un* 'year'; distance: *depa* 'fathom'; higher units of mensuration: *ratuyh* 'hundred', *ribu* 'thousand'; value: *rigit* 'dollar' and so on.

Lastly, used with an amorphous conglomeration of nouns which do not belong to any well-defined group (perhaps because they refer to things which are not often enumerated), the classifier position may be filled by *macem* 'kind, sort'. This occurs in the data with *peritah* 'authority ', *tenga'up* 'rainbow', *palei* 'taboo' and many other words where differences are being described, as

bei	*kawa'*	*dida'*	*macem*	*palei*
be	also	many	sort	taboo

'there are, in fact, many taboos'

Jacob (1965) found three different words in Khmer, all of which she glosses 'kind', but which within the culture are distinguished as applicable to different subsets of the noun iventory. It is their value as a window onto the culture that makes these classifiers so interesting to the ethnographer. Like those found in Malanau, Jacob's list is inescapably linked to a way of life and view of society in which manuscripts are strung together – or talked of **as if** they were still collected in this way – betel is wrapped into conveniently sized packages, and eminent-bodied nobles take precedence over priests. It is not clear whether children, as 'persons,' rank above or below monks, who are merely 'bodies', but a pecking order there certainly is.

The humorous and ironic twists conveyed by the use of an unusual classifier, reported by Burling and Friedrich, were not encountered in my Melanau studies. Despite a strong tradition among the other tribes of Borneo, this is not because the Melanau lack humor or irony; one has only to attend the protracted discussions preliminary to a fashionable wedding (Clayre 1972a) to savour the skillful sallies of a *ta'ou puba'* 'an accomplished speaker'. But they achieve their ends by different means.

PRONOMINAL USE OF CLASSIFIERS

In the literature, attention has been drawn to the role of noun classifiers as pronouns for members of their class in anaphoric reference (Haas 1942:203, Jacobs 1965: 149, Friedrich 1970:382). Melanau employs the same device, substituting the appropriate classifier for the noun at the second reference:

ka'au	*bei*	*duah*	*be'*	*kapek;*	*juh*	*kou*	*jebe'*
thou	have	two	cl.	axe	V+give [17]	me	one-cl.

'You've got two axes; give me one of them.'

To understand the specialized use of classifiers in relative clause construction, a device to which attention has not previously been drawn, it is necessary to grasp the essential outlines of the general pronoun system and the nominalization construction which, with nouns, form the distribution class of nominals.

Apart from personal pronouns – an eleven-term system structured on the familiar contrasts Speaker: Hearer Included: Excluded and the number contrasts Single: Dual: Plural – two general pronouns manifest the Animate: Inanimate dichotomy: *a* 'someone'[18] and *wa*' 'something.' The general plural *lou* is neutral as to animacy.

In the formation of a nominalization, *a* has the meaning 'one who,' as in *a nyat* 'one who is great, a person of substance,' *a memeket* 'one who uses a *peket* 'fishing-net' or *a likou* 'person of the river, a Melanau.' The impersonal *wa*' may then be glossed 'that which,' as in *wa' asek* 'that which is worn, clothing,' *wa' li'* 'that which is played, a game' or *wa' ba' kanen* 'that which is to be eaten, food.' [19]

The general pronoun *a* also doubles as the relative pronoun 'who' in adjectival clauses, as:

Jilag,	*a*	*diem*	*ga'*	*tugi'*	*sungai*	*'Ud*
Jilag	rel.	dwell	at	mouth	stream	'Ud

'Jilag, who lived at the mouth of the River 'Ud'

But when the animate classifier *apah* is substituted for the general pronoun *a*, the relative clause becomes restrictive, as:

ane'	*Tegiok*	*apah*	*buya'*	*beragen*	*in*
child	Tegiok	cl.	suffer	violence	that

'the one of Tegiok's children who was violently treated'

The implication is clearly understood by all Melanaus that Tegiok had other children who came to no such harm. Followed by a single-state verb, *apah* forms a selective nominalization without any immediately preceding nominal referent:

apah	*umit*
cl.	small

'the younger one'

The whole range of inanimate classifiers may be substituted for *wa'*, with a parallel shift from purely adjectival to restrictive, or selective-relative clause:

1) *kapek wa' belei kou dagen keai nga' padel*
axe rel. R+buy I in bazaar past blunt
'the axe, which I got at the bazaar, is already blunt' (nonrestrictive)

2) *kapek be' belei kou dagen kedai nga' padel*
axe cl. R+buy I in bazaar pasy blunt
'the axe which I got in the bazaar is already blunt (but the other is fine)' (restrictive)

3) *kelideng usah bah aju' kenedau tou*
monument cl. side upriver P+place spirit
'the upstream burial-pole is haunted (but the other is not)' (restrictive)

SEMANTIC GROUPING

The form and organization of things in the minds of a people is to some extent reflected in the grouping of these things together into contrast sets whose members, distinct among themselves, share some real or attributed features. The ritual poetry of the Melanau affords a remarkable opportunity for this kind of observation, since it is customary for an officiating "priest" to frame his chant to the spirits in a set of systematic oppositions which thoroughly explore the Melanau habitat, seeking out every hiding place from which the *tou* must be summoned,

tou guun, tou talun
tou kayou, tou padou,...

Although from time to time the demands of rhyming these spirit-haunts leads even a skilled incantor into near tortologous repetitions (and sometimes even to a sort of "tum-titty-tum" to fill up the verse), there is a highly poetic balance of ideas behind it all. A culturally expanded translation would be:

spirits of the tall forest (not yet felled for farming),
spirits of the tanglewood (overgrowing old cultivation),
spirits of the tall trees (which must be felled to make farms),
spirits of the weeds (which must be kept cleared aways while the farms are in use)...

As an introduction to artistic thought in the community, this is productive; its usefulness in establishing the taxonomies of the culture is limited. A less engaging but more direct manner of inquiry was to ask all kinds of people quite simply into what *basa* or 'family group' (cf. Malay *bangsa*) they would place any recognized species of creature, flower, or plant. When a sufficient inventory of these categorical terms was built up, children in the top class of a local school were asked to name as many members as possible of each *basa*. When there was substantial disagreement over any entry, the heated discussion that took place revealed some of the distinctive criteria for each category.

Many of the living things are automatically categorized by the superordinate word forming the first part of the compound name, as mentioned in the introduction. Typical of these internally classified names are some of the larger flora, such as:

trees: *kayou jita'* 'balsawood tree,' *kayou nuno'* 'parasite fig-tree,' *kayou peh* 'manggeris tree."[20]

fruits: *bua' dian* 'durain fruit,' *bua' pisang* 'pineapple,' *bua' luba'* 'radish,' *bua' pinang* 'betelnut.'

tubers: *ubei badong* 'tapioca,' *ubei bukou* 'yam' (but not, however, *gexawat* 'vinepatato, 'about which there are many taboos and complicated rituals; it is classed with *akai* 'vines').

edible fungus: *kulat belabau* 'rat's ears fungus' which grows on trees, *kulat tana'* 'mushrooms' growing on the ground.

edible sprouts: several generic subclasses are defined by their names such as *xebu bulu'* 'bamboo shoots' growing from a corn, *tajo' balau* 'sago sprouts' growing from the bole of the palm, *ja' et sepaxo'* 'new hyacinth-leaf tips' which are still tender enough to be tasty, *pakou nyexam* 'nyexam -fern tips.'

and so on. I am not a botanist, but it seems to me that there is ample evidence here of a thoroughly cultural grouping overriding any correlation which might be sought with botanical species. Berlin, Breedlove, and Raven, from a standpoint of superior scholarship, establish this predictable phenomenon in other cultures (1966).

Leaving the world of growing things for the animate group counted with *apah*, one finds the main categories clearly delineated but a number of most interesting problems at their borders.

birds: *mano' tejali* 'hornbill,' more particularly the rhinoceros hornbill,[21] known as 'king of the birds,' *mano' set* 'the sunbird family,' *mano' tepasi'* 'kingfingers.' and so forth: some of which are themselves superordinate term for groups of birds within which greater degrees of identification are possible (cf. Bright 1965:71).

fishes: *ikan butel* 'puffer fish,' *ikan ibul* 'marlin,' *ikan udun* and others I have not been able to identify by any more scientific name. Cutting across this classification is a broad division into *ikan daat* 'sea fish' caught by coastal fishermen. and *ikan guun* ' forest fish' found in the freshwater streams of the peat swamp forests which form the natural Malanau habitat. This distinction is important for many reasons. Presence of *ikan udun* or *ikan tekili'* the fresh-water eel indicates potable water, important to the traveler, and may help to locate his position relative to known river systems. The little *udun* in particular features in folk-tales concerning the seafaring and trading exploits of Melanau, stories full of fascinating detail about traditional ways of life before Western ways overtook the culture.

shelled creatures: *si' baben* 'large garden snail,' *si' tirem* barnacle,'*si' tu' ai* 'edible clam,' and many more that vary widely in appearance from the convoluted snail, but excluding any of the crustaceans that have legs.

snakes: *dipa ulah* 'cobra,'[22] *dipa depu* 'the short python' (one of the creatures of fun in Melanau animal tales), *dipa penganen* 'reticulated python.'

There are also other categories, but those listed will serve to outline the concept of superordinate naming. The problems arise when the investigator asks why a particular creature is assigned to one class rather than another.

One should not suppose that the indigenous people accept the classifications of the language without thought, and never pause to consider the whys and wherefores for themselves. To be sure, the explanations offered often fall

far short of satisfying the Western mind; Mary Haas's anecdote (1942:202) about the Thai elephants being classed with ropes "because they are sacred" is typical. I have collections of "why-so" stories ending "and that is why the mosquito sucks human blood, down to the present day" – or whatever it might be– in which I can find no rationale at all to justify the "and that is why." But explanations are offered, which set the creature in its proper place in the Melanau scheme of things and give to the multiplicity of taboos an authenticating link with traditional history.

The category *ikan* 'fish' is relatively easily defined; its members swim in the sea, rivers, or pools. Shape is of very secondary consideration. No one has any doubt that *ikan panit,* the shark, is a fish; it looks like a fish and it behaves like a fish – except in its tiresome habit of trying to eat people. Not so fish like in appearance is *ikan paai,*the manta ray, whose tough upper skin is used by coastal fishermen for sandpaper, but it swims in the sea after a fashion, and *ikan* it therefore is. Possibly because of its appearance which, while hard as any other crustacean, is yet rather like a small *paai,* is the king crab *ikan belakih.* Yet its long tail and absence of spindly legs claws like other crabs would presumably make a Melanau wonder why **we** called it a crab.

Yet the humble mud-skipper, for all it lives in the sea (much of the time) and has fins (on which it appears also to shuffle along quite well on land or logs) and a tail somewhat like fishes, is not *ikan,* just *beletika'.* Western biological science may link it with the lung-fish, but Melanau categories do not. One asks "Why not?" It is not eaten, they reply, and *ikan* are edible. Some, it is true, like *ikan kex* (a kind of small conger eel), are liable to cause considerable harm to the eater, and are always put straight back into the water when taken up in a net: others such as *ikan belusu'* are protected by a *palei*[23] so that they are not actually eaten by most Melanau families. But they are potential food, and this turns out to be a required component in the analysis of *ikan.* By contrast *padek,* the prawn of the brackish water where sea and river mingle, a great delicacy in the Chinese coffeehouses and a staple diet of women who have no man to fish for them,[24] is known not to swim as real fish swim. As far as I could gather, it is not generally included in any superordinate class at all; nor is there any connection in name between the mature *padek* and its various immature stages such as *utud.*

This lack of link between developmental stages of what we regard as the same creature is noted for other species, of which the example of the sago-grub will suffice. The upper fronds of the sago-palm yield little or no workable pith, and are collected into heaps in the sago gardens as nurseries for these grubs of the sago-bettle *buyun.* At the right time of year one may collect a fine harvest of *si' et* eating raw, boiled, or fried; the best flavor obtains in the cocoon stage, *sebalun.* Although no statistical figures are available, there is evidence here also to support Berlin, Breedlove, and Raven's finding that species of high cultural significance tend to be overdifferentiated by standards of biological classification (1966:274). The river turtles *tenga' ou* and *belabei, penyu'.*

the great sea turtle, and *di' a*, the terrapin family, have no common generic name, nor could I find one for the several species of crabs that swarm on the beaches and riverbanks.

There are, however, different classifications that cut across the field of edible creatures; several Melanau foods are classified as *lasu'* 'hot' or *singox* 'cold.' This notation distinguishes a fairly small number of meats, and is detailed in a series of texts with which I have not yet got thoroughly to grips. As I understand it at present, if one feels chilly – due perhaps to a real change in the air temperature, or because of an approaching fever, or because of adverse magic – then it is advisable to eat something *lasu'*. This has nothing to do with the physical hotness of the food, nor with its standing on the peppery scale. Dog is the favored *lasu'* meal, but ought to be eaten in company with several friends or it may prove too powerful for the sufferer.[25] The overheated, on the other hand, have recourse to a number of 'cooling' foods, among which are the *si'et* grubs already mentioned and, best of all, *kenyuma*, the garret-worm, whole cultures of which are specially prepared in waterlogged timber kept near the floating landing-stages of most homes.

Some other creatures are themselves superordinates (or else the name is fed to the inquirer as a last resort). The crocodile, *baya*, is also cited as a coverterm for all the large creatures of its general appearance that lays eggs, such as *alou* 'monitor lizard,' *bebaja* and *bekaxu* 'tree lizards (variously)'; even the little chichak, *penga'ed*, may be classed among the *baya*. This is perhaps connected with a well-established tradition that when a crocodile lays its eggs, it does so on a small island (in a lake which serves as a nursery for the hatchlings) and lays them all in a great heap. The egg on top of the pile is the only to become a true *baya;* successive layers hatch into *alou, dipa* 'snakes,' and eventually *beruang* 'bear'. For this last idea to make any sort of sense, it is necessary to look first at some more of the regular categories and their attendant problems.

All the insects that bite and sting may be referred to loosely as *kiěh* 'mosquito,'while *sesinget* 'wasp' covers in a general way both the large stingers such as *wi* 'hornet,' vicious biters like *tetela'* 'painted lady horsefly' and the slow-moving *pexnget* which zooms around at about knee-level in the swamps and sago-gardens, and is capable of raising a nasty ulcer on the limb it bites.

Bats and flying squirrels pose a problem. It is readily granted that *selemawa'*, the great fruit-bat, and *nenawai* and other smaller varieties living in trees and caves all have ears and fur, quite unlike any other flying things. Moreover they lack a bird's beak, having a face like ground-based animals; nor do they lay eggs. It is admitted that *tetah* and *kekamen*, two varieties of flying squirrel, cannot readily fly but only *melayang*, glide from one tree to a lower one. Nonetheless, these are all *mano'* this-and-that, 'birds.'

Most other animals which cannot be classed with one or other of the several categories described (or those not mentioned, which are less easily de-

lineated) are negatively defined as *benatang* 'animals.' They have no superordinate term attached to their specific names. Such are *payau* and other kinds of deer, *babui* 'wild pig, *asou* 'dog' and many more. Despite the stories that link him with the crocodile, *beruang* is unanimously accorded *benatang* standing.

Whether or not it is reasonable to seek for explanations in trying to understand the intricacies of these groupings, such inquiries do turn up some very interesting traditions. The Melanau generally believe that a social offender, especially one guilty of *tulah* ' refusal to accept proper hospitality,' will find his soul *senaang baya* 'seduced by the crocodile.' This is the way in which the spirit realm gets the offender into its punitive power. If by some devious cunning or superior magic the guilty person manages to elude the crocodile, his soul is handed over (as it were) to the power of the bear, and is thereafter *senaang beruang*. Traditions well attested in the villages tell of people being carried off by both crocodiles and bears when they have committed some such offense. Presumably this linking of the two creatures in their roles as custodians of judgment requires them to have the same origin in the crocodile nursery.

A more devious connection has to be sought between the category *mano'* 'bird' and three denizens of the forest floor; *mono' dengen* is a crab-eating otter (or something so like an otter that the name will be sufficiently precise here); *mano' mesala* may well be the big tree shrew, since it has four legs, fur, and a tail "like a dog's," but swims and climbs trees; *mano' munin* turns out to be the destructive little mongoose, terror of chickens and many other small creatures. All three, one would have thought, ought to be among the simple *benatang*, since they have physical features recognized as belonging to land-based animals and do not fly, even in myth. Yet everyone I questioned agreed that they were named *mano'* this-and – that; no one offered any explanation.

Some clue to this odd naming is found in a story concerning a hunting expedition in which Besiong, son-in-law of the hero Tugau who lived on the Igan River, finds the gold for his brideprice.[26] Finding the fish-traps he had set the previous night empty, he exclaims, *kinah kulum*, "'eaten by the goblins.' The narrator of this tale went on to explain for the benefit of the foreign guest at the party that *kinah kulum* and *kinah mano'* 'eaten by the birds' are more-or–less equivalent expressions used commonly among the Igan Melanau to explain away an empty trap. Vindictive creatures, *kulum* are well-known spirit-beings that one is well advised to avoid in the forest. Robbing fish-traps is one of their more harmless occupations. But everyone also knows that there are three other robbers of traps with whom they must contend: *munin, mesala* and *dengen*. Hence, perhaps, they come to be categorized among more regular *mano* which, furred or feathered according to their kind, fly.

One might think it unusual to find a semantic label like this metaphorically attached on a mythological string. Yet it is not so unlike the fixed epithet

of Tarascan that required toads to be counted as round objects instead of sticklike things as most other animals are (Friedrich 1970:835). This is the delight of folk taxonomies. They take the ethnographer under the dry skin of his data into that uncertain world of folklore and myth where many of the deep awarenesses of a culture have their roots. That world is found to be not an uncharted wilderness, but mapped out with a local logic in the syntactic and semantic groupings of the language.

Notes

1. The data on which this article is based were gathered in 1970 - 71 during a linguistic study of the Melanau undertaken for H. Stephen Morris of the Department of Social Anthropology of the London School of Economics and Political Science, assisted by a grant from the Social Sciences Research Council. The Melanau form one of the larger tribal groupings in Sarawak, mostly occupying the low lying country along its southwest between the Rejang delta and the Baram River. The social structure of a Melanau community has been described in Morris 1954 and 1967, while Clayre 1970 and 1973 concentrate on particular aspects of the language. Short ethnographic notes on the culture and beliefs appeared in the *Sarawak Museum Journal* and *Sarawak Gazette* between 1950 and 1969 contributed mostly by Jamuh, and by Clayre in 1970 - 1972.
2. Melanau word roots are highly mobile within the word classes of traditional grammar, a characteristic shared by many of the Malayo-Polynesian languages (Longacre 1964:102). Nevertheless, many useful generalizations can be made by recognizing distribution classes within which many roots are accorded mobility much as suggested in the first of Bazell's options (1958:7), and a class of nominals is set up accordingly of which nouns form the most numerous subset. The morphology of word classes is discussed in detail in *A Grammatical Description of Melanau*, Ph.D. thesis at the University of Edinburgh, in preparation for publication.
3. The noun classifiers system described below is not regarded as manifesting the category of gender on three counts. While there is always a certain degree of apparently arbitrary membership, gender groups are typically semantic sets in which, for instance, body parts and a few other nouns form one group while things associated with the sea (fish, ships, waves, and so forth) form another (Worsley 1953); there is often a distinct correlation between grammatical gender and physical sex (Lyons 1968:283); the grammar of gender manifests concord with the clause. None of these features is found in Melanau.
4. The orthography used throughout this article is that suggested in

Clayre 1970, based on the phonemic structure of the Dalat dialect. There are six vowels contrasting close and open jaw approximation, front, middle and back tongue position, symbolized *i* and *é*, *e* and *a*, *u* and *o*. The consonant system has voiced and voiceless stops *b* and *p*, *d* and *t*, *g* and *k* and the glottal '; fricatives *v*, *s* and *h*; affricates *j* and *c*; liquid *l*; trills *r* and *x* with alveolar and uvular articulation respectively; semi-vowels *w* and *y*; nasals *m*, *n*, *ny* and *ng*. In conformity with Malay and Indonesian tradition, in word final off-glides and semi-vowels are represented by the vowel symbols *u* and *i* as in *ngai* [nay] 'size' above. A bar over final *u* or *i* represents a true sequence of two vowels word final, as baū [bau] 'Bau town,' distinct from *bau* [baw] 'upwards.'

5. A proper name is sometimes found followed by one of these short identifiers, but the sense is always of locational identity having the force of 'So-and-so **here**.' The identifiers and locational deictics are morphologically related (Clayre 1973a), *gi'ih* 'here' and *giin* 'there,' so the apparent use of identifiers may be no more than a reduced form of locational deixis.

6. The choice of a vocative sobriquet rather than a name is in part at least culturally determined, since it is *palei* 'forbidden, taboo' to many Melanau to use the name of a parent openly. The convention of avoidance of direct second person pronouns in servile address is not limited to Southeast Asia as evidence the style of shopkeepers' speech, "What would **madam** like to be shown?" etc.

7. From 'The Cuckoo and the Hornbill,' a Melanau legend found in marginally different forms in several cultures of Borneo and the Indonesian islands (Harrisons 1968:186).

8. The break in the (line under the) vernacular material is to indicate syntactic division relevant to the discussion. In this case it marks the division into two major components of the equation clause, subject nominal phrase and complement NP.

9. The distinction between animate and inanimate causatives in Melanau is made clear in Clayre 1973b (263) Animate causers of a state may be subject of the clause, whereas inanimate causers are introduced by the preposition *buya'* in the clause margin, as e.g.,

bajou	*'ih*	*sebit*	*buya'*	*pakou*
shirt	this	be - torn	on - account	- of - nail

'this shirt got torn on a nail'

10. *je-*, the enclitic form of *jeh* 'one,' is the only numeral to be always joined to its classifier. *duah* 'two' is sometimes so shortened, as in *duaratuyh* 'two hundred.'

11. It is not unusual to have such a "sink" class with in which many semantically disparate nouns may be enumerated for convenience at a less-than-precise level of delicacy (Burling 1965:252). Many nouns found

enumerated with *ata'* occur elsewhere with a particular classifier; fruits, for instance, are usually counted with *`ou* in speech between Melanaus, while the general purpose *ata'* is sufficiently precise for trade in the Chinese bazaar of Dalat or when talking to the up-river Ibans. Asmah notes a similar use of *buah* and *biji* in Malay, reduced to *iti* in Iban, all semantically neutralized (1972:95).

12. Timugon is one of the Murut languages of Sabah, much farther north in Borneo and apparently more closely linked to the Philippine branch of the Malayo-Polynesian language family.
13. *utéh* is the same word as Malay *utas*, which also classifies threads and threadlike objects (Asmah 1972:90).
14. It was noted that, while the primary color terms were universally agreed, women used a far wider range of secondary and tertiary terms which were not volunteered by men, nor located by men on a chart such as Berlin and Kay (1969) used.
15. *tenuyh* is the nominal associated with the UIE verb (Clayre 1973b) *tunuyh* 'to string together,' descriptive of the way prawns and small fish are collected into manageable bunches with a piece of grass threaded through their gills.
16. Many of these adverbial constructions occur with the noun in the singular, such as *apah japah* 'from one to another' and *japah japah* 'one after another.' The adverbial *jumit* 'a little' would appear to be a reduction of *je -+ umit* 'one small,' and hence *jumit jumit* 'bit by bit.'
17. V+ in the gloss indicates the focal status of the verb, with a range of subject/actor/agent, object, verb, and referent. Here the use of the root *juh* signals verb focus used for imperatives.
18. In certain circumstances *a* has the added significance 'someone else' as in *in hal a* 'that is someone else's worry!'
19. The general plural pronoun *lou* conveys a slightly different sense in construction with different classes of noun. With a proper noun, as with inanimates generally, it includes the name with others in the same general class, as *lou Jilag* 'Jilag and his friends' and *lou batou lou nou*, literally 'plural stone plural what?' an idiom having the sense 'stones and things like that.' With other animates it is less eclectic, and *lou mano'* is glossed 'all kinds of birds,' for which an equivalent expression is *wa' ngadan mano'* 'what goes by the name of bird.' With other grammatical classes *lou* merely nominalizes, as *lou aba'* 'persons down river, coastal folk.'
20. It is unfortunate that the native informants who collaborated with Anderson to produce his invaluable *Field Check List* seem to have been almost all Ibans, so that only some of the Melanau names tally with his 'indigenous' identifications.
21. *Buceros rhinoceros borneensis* in Smythies 1960, the center of much folklore discussed in Harrisson 1968.

22. It is of some interest to note the small shifts in meaning which occur across the boundaries of related languages and dialects. *ular* is Malay 'snake' of all varieties, while in Melanau it is the specific for 'cobra.' In the Tanjong dialect of Melanau the superordinate term for snakes is *penganen*, here the specific for 'python.' Asmah notes that Malay *ekor* 'tail,' used to classify nonhuman animates as against *orang* 'person' for animates, serves in Iban for both (1972:89) however inappropriate this may seem.

23. According to the tradition, the ancestor of one of the Melanau families decided to turn into an *ikan belusu'* and swim out to sea away from all the family bickering. She called all her sons and grandsons about her and, having read them a lecture on their contentiousness, began to turn into a fish before their eyes. Her last bidding was that all their descendants *sou sikou sou silou, ka' lauyh keman ikan belusu'* 'to the generation of the elbow and fingernail, must not by any means eat the *belusu'* fish.' Most of the food taboos have a similar tradition.

24. Prawns are caught by torchlight in a woven basket, along the overhanging banks of the rivers, a task which can be performed by wading or from a small canoe. It is thus ideal for widows and the destitute.

25. The old men at Oya on the coast tell of the first *imam* to convert them to Islam, who was tricked into eating dog to test his dire warnings on the outcome of this heathen practice. Discovering the deception too late, he delivered a heated harangue, in the middle of which there was a vast explosion in the distance, the sky went red and then black, and the people of Oya became Muslims to a man. The date of the story, as closely as one can judge, coincides with the eruption of Krakatoa in 1883.

26. The story *Kinah Kulum* is given more fully in Clayre 1972b. All the stories and descriptive texts gathered throughout the Melanau area in the course of these studies are now collected in magnetic tape and manuscript form in the Sarawak Museum archives in a section devoted to the oral literature of the various indigenous communities. The brideprice is discussed at length in Morris 1953.

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AGRICULTURAL DEVELOPMENT IN THE UPPER REJANG VALLEY

RICHARD L. SCHWENK
Methodist Agricultural Extension Service Kapit, Sarawak, Malaysia

Part I: The Upper Rejang Valley: An Assessment of Problems and Needs

THE PROBLEM

The Iban of the Seventh Division of Sarawak are undergoing major socio-economic changes. Poor weather conditions and impoverished soils had disastrous effects on the upland rice harvests in 1971 and 1972. At the time of this study most Iban had stopped tapping rubber, their major source of income, because of low prices. A harvest of *illipe* nuts added some cash but not enough to repay the debts many Iban owe after two rice crop failures. Rattan and other jungle products collected for cash income are in little demand.

In this situation many Iban are beginning to seek techniques of agricultural intensification -- or other jobs. Adding to the complexity of the problem are the secondary school leavers who are reluctant to return to their longhouses yet are not vocationally trained to earn a living. Unemployment of the educated is being experienced in major proportions for the first time.

"Change agents," where they exist, are often at a loss for a systematic method of discovering the learning readiness of the people they hope to serve. The gap between the haves and the have-nots seems to be widening.

THE STUDY

Original Objectives

Research conducted in this study had as its original objectives the collection of data for use in the planning and evaluation of rural development programs, and the definition of structural factors in longhouse communities which may enhance or impede development. Implicit in these objectives were the study of socio-economic conditions in Iban longhouses and the recognition of differences between the felt needs and real needs of the Iban.

Techniques

A nine-page questionnaire was administered to a 4 percent stratified random sample of Iban longhouses of the Seventh Division and the Sibu District during January 1972. Stratification was determined on the basis of nineteen Iban *Penghulu's* ("chiefs") administrative areas. One longhouse was selected at random from each chief's area and all the *bilik*-families in each longhouse were then surveyed. This report deals primarily with the findings of the fourteen Iban chief's areas of the Seventh Division. Data from the Sibu District, a more urbanized area, are included in the tables.

Unit of Analysis

The main unit of analysis is the autonomous *bilik*-family. This family is the principal socio-economic unit in Iban and the only corporate group, holding rights to land and inheritance. The average number of members per *bilik*-family is 6.1, with an annual rate of growth of about 2.5 percent. The longhouses of the Seventh Division average 17.8 *bilik*-families per house. Data on 247 *bilik* in fourteen longhouses from the Seventh Division are presented in Table 1. In Table 2 and 3 comparative data are presented on a sample survey of 118 *bilik* in five longhouses from the Sibu District.

THE CONTEXT

People

The ethnic composition of the Seventh Division in 1970 was as follows:

	Number	Percentage
Iban	38,658	75.1
Other Indigenous (includes Kayan, Kenyah, Penan, etc.)	7,209	14.1
Melanau and Land Dayaks	160	0.3
Chinese	4,257	8.3
Malay	898	1.7
Others	233	0.5
TOTAL	51,415	100.0

(from Chander 1972: 101-4)

The Iban and other indigenes live predominantly in 430 longhouse communities and earn their livelihood through shifting agriculture, hunting, fishing, and gathering jungle produce. Most of the Chinese are engaged in pri-

vate business or employed in government services. The Malays have usually been employed by the government, but recently some in Kapit have opened businesses such as a general store, small restaurants, and a launch service to Sibu. Several shophouses are owned by Iban leaders and leased to Chinese businessmen. While 97 percent of the Iban and other indigenous people live in remote longhouses, the Chinese and Malays live predominantly in the bazaar towns of Kapit, Song, and Belaga. This study is devoted to the Iban because of their numerical superiority and because they are 95 percent dependent on agriculture.

Environment and Implications for Development

The Seventh Division of the Upper Rejang is one of the largest administrative units in Sarawak, including an area of 15,022 square miles. For comparison's sake, the division is only slightly smaller in area than Switzerland. The population density, however, is 3.5 persons per square mile, with most of the settlements along the navigable rivers, which provide the only arteries of transport.

Topography

The topography of the Seventh Division ranges from swampy flat land at the downriver boundary near Nanga Ngemah to steep mountainous terrain at the headwaters of the Rejang that divides Sarawak from Indonesian Borneo. In between are belts of low hills. The steep topography of the upland area is a major limitation to agricultural development. The elevation is 55 feet above sea level at Kapit, and rises to 1,248 feet at the Linau Balui Plateau with some peaks in the interior exceeding 5,000 feet.

There are a few flat areas at the headwaters of some rivers, such as the Balleh and Melinau, and above the Pelagus and Linau rapids. The largest area now under development is an estimated 2,000 acres at the headwaters of the Melinau River and foot of the Hose Mountains.

The division is cut by scores of streams and rivers that flow through deep, relatively straight valleys. These valleys flood easily after heavy rains. The depth of the rivers varies daily, making it difficult to plan travel ahead; some rivers are impassable when the water is at the highest or lowest levels. Transportation is a major problem, because of the terrain, distance involved, rapids, and the relatively greater expense of water travel, using outboard engines.

Soils

Some of the relatively fertile areas, large enough to show agricultural potential, have been analyzed and found to comprise red-yellow podzolic soils. The Linau-Balui Plateau, for instance, a very remote area, contains more than eleven square miles of fertile podzols.

Most of the soils, however, are acid and susceptible to leaching after the

natural vegetation has been removed. Two or three successive years of hill rice cropping usually result in almost irreversible soil damage, and in a take-over by the noxious *lalang* grass (*Imperata cylindrica*). This is not the case for soils where wet rice is cultivated, for land in flooded fields can be farmed year after year with no damage to the soils.

Climate

All of Sarawak lies in the hot humid tropics, between 1° and 5° north of the equator. Temperatures vary consistently between a minimum of 70°F. at night to a high of 95° during the day. Rarely a day passes without some sunshine, and most heavy rain comes at night and in the months of October to February. In the Rejang River watershed, rainfall usually varies from 140 inches per year near the coast to 200 inches near the mountainous interior. There is no predictable dry season, a fact of critical importance to slash-and-burn cultivators, who generally hope their jungle clearings will be dry enough to burn in the months from June to August.

Implications

The predominantly steep terrain and high rainfall of the Seventh Division combine to produce conditions favorable to leaching. Land use, therefore, differs from that in the monsoon tropics where soil can be rested during the long dry season as, for example, in South Asia and Mainland Southeast Asia.

In the Seventh Division, as throughout the hot humid tropics, insects and micro-organisms flourish the year round. Little wonder that the isolated farmer does not grow food in quantity greater than his yearly needs, since stored crops do not keep long and there are no ready markets for most food crops.

The cultivation of timber, rubber, fruit trees, cassava, and other crops that most nearly resemble the native vegetation makes wisest use of the land in most of the Seventh Division. Forage crops for livestock should be investigated in greater depth as they would protect the soil and take advantage of the plentiful rainfall and sunshine. Where possible, flatter land should be terraced for wet-rice production.

NEEDS: FELT AND REAL

Felt Needs

In each longhouse of the survey sample and in some forty other longhouses in the Kapit area, my assistants and I asked an assembly of elders, "What are your greatest problems and needs? Please list them from the greatest to the least." Below is a summary of responses in rank order.

1. We are hungry for rice.

2. The prices we receive for things we want to sell are low, especially rubber (US$10 to $12 per hundredweight at the time)
3. The prices charged us for essential commodities we need are high, e.g., kerosene, outboard motor fuel, sugar.
4. We are often sick with no clinics nearby.
5. We do not have enough knowledge, especially about agriculture and health.

These are the felt needs among the Iban and other indigenous of the Seventh Division. Lack of rice was mentioned as the greatest need in over 98 percent of the longhouse communities. Until the Iban's immediate need for rice is satisfied, they probably will be less concerned about other needs. It is interesting that the elders had difficulty articulating their problems beyond three or four points.

Members of rice production classes conducted in the Farmers Training Centre, Kapit, were asked to account for the shortage of rice. The following are the most frequently cited reasons.

1. There is not enough dry weather (usually at least one week is needed) so the jungle debris cannot be burned to clear the area, kill weeds, and provide fertilizers from the ash.
2. There are too many pests such as rice birds, animals, insects, and weeds.
3. There is a lack of good soil or flat land for farming wet rice.
4. We do not know the best time to begin cultivation.
5. We do not have the capital to terrace the land, buy fertilizers and agrochemical products.

When questioned further, most rice production trainees recognized that their own lack of knowledge and hard work are often the major reasons why some Iban never have enough rice to eat. Those families which do not produce enough rice tend to place the blame on the weather and bad luck. Those who do get enough rice often attribute it to knowing when to start the farming cycle and to hard work. In some longhouses there are certain families who consistently have enough rice for their yearly needs. Because they do, they can afford to hire poorer families to help in the essential task of weeding. There is a tendency for "the rich to get richer and the poor to grow poorer." As an Iban adage has it, "Those who always get rice are descendants of those who always get enough rice" (*Sida ke selalu bulih padi nya ari turun-menurun orang ke selalu bulih padi*).

Real Needs

In contrast to the felt needs as articulated by the Iban, the real needs are those recognized by the planner or change agent. For the Seventh Division we may

summarize the following real needs.

1. More staple carbohydrate foods such as rice, maize, tapioca, and sweet potatoes.
2. Cheaper transportation and communication.
3. Agricultural knowledge applicable to the area.
4. Availability of agro-chemical inputs.
5. Dependable markets with reasonable prices for produce.
6. Increased availability of health education, sanitary and medical facilities; and
7. Education for adults and children for life work.

Like spokes on a wheel, these are essential to rural development, and it is difficult to assign priorities. In addition to the above needs, we would include as "accelerators of agricultural development" (Mosher 1966: 127) planning, production credit and banking facilities, group action by farmers, and expansion and improvement of the land base.

DEVELOPMENT AND IDEOLOGICAL CHANGE

Economy: Active Population

The Iban population of the area is 53 percent economically active, that is, the percentage of individuals above the age of 12 who do farming or other work. Of the economically active Iban the 1960 census reported 97.7 percent as farmers. Since this was a *de facto* census of persons actually at home on census night, it does not take into consideration the Iban men on trips (*pejalai*). Such trips may account for as many as a quarter of the Iban men between the ages of 15 and 35 years. Many have been working for timber companies in Sabah or Indonesia, in the oilfields of Brunei, or as members of the armed forces. A recent decline in employment and Brunei's restrictions on work permits has forced men to return home. In addition, the army plans to muster out many older Iban for pension soon. This could be a boon for development in rural areas if men with wider experience and capital return to their longhouses with a desire to maintain a standard of living approximating that experienced in towns and camps.

At present, one seldom finds many able-bodied men at home after the work of felling trees and planting rice is completed. The menial tasks of farming such as weeding, pest control, and harvesting are done mainly by women.

Rice

Upland rice is grown by almost all longhouse dwellers in the Seventh Division. An estimated 69,225 acres were planted for the 1973 harvest. Slash-and-burn agriculture is the most viable means yet found for farming the steep jungle

hillsides. Lowland or wet-rice cultivation in the Seventh Division has increased from 208 acres in 1967 to 1,150 acres in 1973. The yields from wet rice are two or three times that of hill rice, and with improved techniques can be increased five times. Wet-rice fields once properly built can be farmed continuously, thus freeing farmers from the uncertainties of shifting agriculture. Larger more prosperous communities are usually found in wet-rice areas.

Crops of hill rice for the last two years were the poorest in memory due to depleted soils and no distinct dry season. Lack of easily accessible virgin jungle has led to a shorter period of bush fallow, from an ideal of twelve years to about six years at present. Soils are thereby impoverished as there is no time for large trees to grow which can bring up nutrients from the sub-soil and kill noxious weeds through shading.

In 1971, only 46 percent of the *bilik* - families were self - sufficient in rice. By contrast, the members of the two longhouses in the survey who had begun planting wet rice met 84 percent of their rice needs whereas only 40 percent of those dependent on hill rice had adequate yields.

The scarcity of terraceable land is a major reason why more longhouse communities do not plant wet rice. Still, more small areas are being terraced and prepared each year. The largest wet-rice project yet undertaken is at Nanga Merit where 320 acres will be irrigated by diesel pumps.

Pepper

Following the plunge of rubber and jungle produce prices in 1969, Iban of the Seventh Division quickly undertook the planting of pepper. Previously the crop had been grown almost exclusively by Chinese farmers below Kanowit. The abandonment of hundreds of gardens due to security problems in the Sarikei and Binatang districts, and the spread of foot-rot fungus (*Phytophthora palmivora*) have reduced the supply of pepper, forcing prices up and making its cultivation attractive. At the time of our survey, 27 percent of the Iban families had pepper gardens with an average of 156 vines per family. Successful cultivation of pepper was first achieved by Iban who migrated into this area from Sarikei, Kanowit, and Julau.

Pepper is the third principal export of Sarawak. A pepper subsidy scheme is being provided for selected farmers, partially as a substitute for the government's rubber scheme. In an effort to stabilize prices, a Pepper Marketing Board was established recently with powers to regulate grading and storage. The problems of foot-rot and other diseases, high input costs, intensity of labor, and the inelasticity of demand may disappoint many new gardeners. In our survey only 50 percent of those growing pepper were using fertilizer and many did not know how to apply it. If the price falls below US$20 per hundredweight (at present the prices range form $36 to $48 for black pepper), it is uneconomical to grow pepper, but there appears to be no better agricultural gamble at this time.

Timber and Rubber

Timber has brought the greatest earnings to the Seventh Division in the last decade, but the bulk of the profits have not reached the common people except through wages and sale of a few logs. Rubber sold from families' smallholdings is still the largest source of cash income for the Iban. The high price of rubber during the Korean War period and the timber boom of the 1960s have provided enough cash so that the Iban have not been forced to diversify their sources of income until now.

Transportation

As in many developing states, Sarawak is beset by problems of transportation. Virtually all access to the Seventh Division is through the port city of Sibu. There is no road to Kapit, and most people and cargo travel by river. Chinese-owned "express" launches travel twice each day between Sibu and Kapit and charge $2.40 per trip. The 90-mile trip takes five hours upriver to Kapit, four hours downriver to Sibu. Tourists, businessman, and government personnel fill the Malaysian Airlines System eight-seater plane that flies twice each week to Kapit and on to Belaga.

Transportation above Kapit on the Rejang and Balleh rivers has improved since 1970 when a daily public launch service was begun. Belaga now can be reached in one day by launch at a cost of $4 each way. As a consequence of the launch service, many Iban have sold or no longer use their outboard motors which are about ten times more costly to operate than public transport.

For Iban living on the many side streams, the out-board motor is still essential, and they are forced to maintain a motor as well as pay the high prices for fuel. In March 1973, outboard fuel cost $.72 per gallon in Kapit, and in December 1973, the price had risen to $1 per gallon. In more remote areas, the price is $1.20 or more per gallon.

On the basis of our survey, the average travel time from Iban longhouses in the division is three hours to Kapit. The closest longhouse is twenty minutes from Kapit, and the farthest eight hours by outboard – motor-powered longboat. Costs by the cheapest practical means average $3.30 per person per trip from longhouse to Kapit, ranging from $.40 from the nearest longhouse fo $8.40 from the farthest. Many families drift down to Kapit in longboats loaded with rubber, rattan, and other jungle produce which they sell to buy such essential goods as sugar, salt, kerosene—and enough fuel to power their boat on the return trip. The cost of fuel from the farthest Iban longhouse and back is at least $20 in a small boat with five passengers using an 18-horsepower motor. So most individuals cannot afford to give free rides, and charge neighbors and friends for rides.

The above discussion is limited to costs of travel from Iban longhouses which are relatively near Kapit. Travel costs in the Belaga District are much

greater as fuel costs are higher, distances greater, and the rapids more dangerous. Larger boats with double motors and crews are required. The fare from Kapit to Belaga is $4 by "express" launch, and $3.20 per hundredweight of freight. An indication of the relatively easier travel downriver is the fact that the freight rate drops to $2.40 per hundredweight from Belaga to Kapit. A "reasonable" fare on an unscheduled Chinese trader's cargo boat from Belaga to Long Busan is $32 round trip. The same trip, if boat, motor, and a minimum crew of four were contracted would cost about $720 round trip. With such high costs one can better appreciate why people of the Belaga District do not attempt to export heavy products or take their sick to Kapit for treatment. If a person dies in Kapit, a privately contracted boat to take the corpse just above the Pelagus Rapids costs $40 for the 25 mile-trip. A proposed road from Bintulu to Belaga will provide much greater access in and out of this vast district of 7,400 square miles.

Religion

According to our survey, 66 percent of the Iban families in the Seventh Division are animists, 17 percent are Methodists, 11 percent Bahai, and 7 percent are Roman Catholic. The figure of 24 percent of the families being Christian is consistent with the 1960 census (Jones 1960: 96), in which Christians were reported in over one-fourth of the longhouses.

Those who are Christians have by no means fully given up the traditional religion. This is not surprising since Christianity has few equivalents to the rice rituals which the majority of Iban consider essential in shifting cultivation.

Traditional Iban religion is often called a padi cult, in as much as the mythological lore, based upon an elaborate system of augury, existed to ensure abundant rice harvests. The chief of the man-like gods is the Brahminy Kite, known as *Sengalang Burong*, thought to be ancestral to all Iban. This belief in a common mythical ancestor is one of the sources of their solidarity as a people. As with most religions, as they become more rigidly institutionalized, they become less relevant to changing human needs and world views.

Among the other indigenous communities in the Belaga District there is an animistic padi cult called Bungan which swept over the whole area from Indonesian Borneo beginning about 1952. The founder of this emancipated padi cult was Jok Apoi, an Indonesian Kenyah, who traveled from house to house in the Belaga District teaching the traditional Lali animists that they no longer needed to follow the various taboos to ensure prosperity. His first converts in each longhouse became teachers and worship leaders. The indigenous movement was so successful that there probably are no more orthodox Lali left. So pervasive has been the effects of the cult that even a majority of the isolated Penan have become Bungan. Jok Apoi died in 1955 but the movement he began still continues.

Among the Iban, certain prophetic shaman (*manang*) have appeared in recent years and have performed ceremonies to rid families of their taboos. One prominent shaman in the Kapit area has enjoyed a profitable response charging one chicken per family.

For the more remote areas of Belaga and the Kapit Districts, Bungan and an innovative shamanism have served as expressive and affective changes that are correlated with technological changes. For those persons who are still totally dependent on such a risky venture as hill rice, some kind of religion is felt essential to contend with the vagaries of nature and to give "peace of mind".

Old values expressed in taboos, auguries, and sacrifices have become less relevant to those who now make their living by tapping rubber or wage-earning. Traditional beliefs have been weakened by the introduction of science through schools, clinics, and modern agriculture. The religions with a book, such as Bahai and Christianity, are more appealing to the increasing number of literate Iban. Islam has not been subscribed to as readily because of its prohibitions on pork and alcohol.

The author noted in his 1970 study of 194 Iban longhouses that those 112 longhouses that grew wet rice successfully had turned away from the costly padi cult toward nontraditional faiths. Of the 79 longhouses in long-established wet rice areas, 98 percent have a nontraditional religion present. From these statistics and field observations it is evident that some nontraditional belief system has accompanied the shift to nontraditional wet rice. For example, using multiple linear regression analysis it was discovered that those longhouses whose members grow wet rice twice a year are almost 100 percent Christian. This group was less dependent on the whims of nature or the capriciousness of the gods. Growing in the off-season requires more rational mastery of the environment in terms of controlling irrigation, drainage, agrochemicals, drying during the wet season, and the greater potential danger from birds, rats, deer, and wild pigs. It is hard to continue to make offerings to the spirits to rid the farm of insects when insecticides are found more effective.

Religion continues to be an important force in Iban agriculture as it legitimizes new forms of action and life styles to meet changing situations. Traditional beliefs and practices persist to the extent that they conserve successful techniques which have not been supplanted by new ones.

SUMMARY OF PROBLEMS AND NEEDS

Problems discussed above are being dealt with in various degrees by the government and other agencies. Usually, however, solutions to these problems are sought by top-level planners who make little effort to discover felt needs at the grass-roots level. Most experts involved in rural development readily admit that the social or human factors, i.e., people, are the main obstacles to accom-

plishing projected goals. But projected goals of development agents often do not line up with people's felt needs. Ironically, by not meeting the felt needs of rural people, for example their need for rice, but at the same time helping the progressive innovators, the gap between the "haves" and the "have nots" is widened.

Part II. Attempts at Solving the Problems and Meeting the Needs

FROM AGRUCULTURAL INNOVATION TO AGRICULTURAL DEVELOPMENT

Once the problems and needs are discovered, an agent of change is confronted with a practical and ethical problem of deciding what new ideas or innovations are really worth promoting. The terms agricultural innovation and agricultural development are often used almost synonymously. Experienced change agents can recite a list of innovations that were promoted but were of little or no benefit to the people or were ahead of their time.

For the purposes of this discussion, agricultural development will be considered as an unfolding symbiotic series of practices, each benefitting and contributing to one another to bring a more secure food supply or increased income for man. Agricultural innovation will be considered as new or novel practices that **may** and **may not** have a symbiotic relationship with one another and **may** and **may not** lead to the benefit of man. The innovative items may be the more exotic or transitory practices that do not really contribute to development.

The following is a method used to eliminate alien or unproven practices and come up with a hierarchy of practices that have proved of substantial benefit to agricultural development in the Upper Rejang and most of Sarawak. The discussion that follows will illustrate briefly the process used to discover an index of the strongest and most consistent indicators of agricultural development in Sarawak.

In the 1971 Iban longhouse study by the author of over 30 conceived indicators of agricultural innovation were listed in the interview schedule. There were only fourteen items that met the test of Guttman scalegram analysis and this agricultural innovation scale was used as the dependent variable in the study.

The present 1972 study (published October 1973) asked the same questions with some additions as seen in Table 1 with the percentages for Kapit and Sibu districts and their mean average. These eighteen items were then pruned to fourteen strong items using Guttman scaling procedures to eliminate items that are not of the same dimension or concept. Those items left are now called a scale of agricultural development, not just a list of what might be considered agricultural innovations (Table 2).

Table 2 gives the percent of the total of 365 Iban *bilik* - families having each item in the first column. In the second column the percent of the "coefficient of efficacy" ("C.E.") is given to indicate how well the item fits into the scale. A perfect fit would show a C.E. of 1.00, while any C.E. below .66 is considered a weak item, i.e., not of the same dimension as the other conceived indicators of agricultural development.

Table 2 is a compilation of data from Kapit and Sibu districts, ranking the acceptable items from step 1 to step 14. Originally Kapit and Sibu districts were scaled separately with higher coefficients of scalability (acceptable being .66 or higher), but in order to rule out regional differences they are combined here. Using these findings and methodology (Schwenk, August 1973), other researchers in Sarawak from the Department of Agriculture and the Miri-Bintulu Regional Planning Project began trying the same Guttman scaling technique with their available data. Six separate studies among nine different ethnic groups show a similar development pattern to the present study with no particular ethnic group dominating the top ranks on the scales.

Table 3 provides a list of agricultural development indicators narrowed from fourteen to seven through a process of elimination based on the criteria below that table. The data from the Miri-Bintulu Regional Planning Project is

TABLE 1: Agricultural Innovation by Iban *Bilik*-Families

Item Used or Grown	Kapit District	Sibu District	Mean
	%	%	%
1. Fertilizer	37	69	53
2. Government Agricultural Scheme Subsidy	18	69	44
3. Wet Rice	7	75	41
4. Insecticide	18	52	35
5. Weedicide	14	51	32
6. Pepper	27	33	30
7. Agro-Chemical Sprayer	11	45	28
8. Rice Fertilizer	11	43	27
9. Rat Poison	3	50	27
10. Pepper Fertilizer	13	28	21
11. Rubber Fertilizer	18	19	19
12. Vegetable Garden most of the year	10	28	19
13. Grafted Fruit Trees	9	19	14
14. Tree Killer	6	8	7
15. Fish Rearing Pond	4	7	6
16. Fungicide	2	8	5
17. Hens, Improved breed kept in a pen	3	1	2
18. Pig, Improved breed kept in a pen	3	0	2
N =	(247)	(118)	(365)

TABLE 2: Scale of Agricultural Development by Iban *Bilik*-Families in Kapit and Sibu Districts

Scale Step	Item Used of Grown	Percent *Bilik*-Families Having Item	Coefficient or Efficacy*
1	Fertilizer	53	1.00
2	Government Agricultural Scheme	44	.66
3	Wet Rice	41	.61
4	Insecticide	35	.71
5	Weedicide	33	.72
6	Pepper	30	.77
7	Agro-Chemical Sprayer	28	.84
8	Rice Fertilizer	27	.95
9	Pepper Fertilizer	21	.80
10	Vegetable Garden	19	.66
11	Grafted Fruit Trees	14	.72
12	Fish Rearing Pond	6	.84
13	Hens, Improved Breed	2	.75
14	Pigs, Improved Breed	1	.50

N = 365 cases

$$\text{Coefficient of Scalability} = 1 - \frac{\text{Deviations}}{\text{Non-Modals}} = .75$$

$$\text{Coefficient of Reproducibility} = 1 - \frac{\text{Deviations}}{(\text{Items} \times \text{Cases})} = .93$$

* The degree to which each item effectively fits into the scale and thereby helps measure the dimension agricultural development. Formula: C.E. = 1 - Deviation/Non-Modals.

TABLE 3: Index of the Strongest and Most Consistent Indicators of Agricultural Development in Sarawak as Derived from Guttman Scaling

Item Used or Grown	Kapit District N = 247	Sibu District N = 118	Miri-Bintulu Districts N = 103	Mean Average N = 468
1. Fertilizer	37	69	75	60
2. Weedicide	14	51	46	40
3. Agro-Chemical Sprayer	11	45	52	36
4. Vegetable Garden	10	28	- -	19
5. Grafted Fruit Trees	9	19	- -	14
6. Fish Rearing Pond	4	7	7	6
7. Hens, Improved Breed	3	1	- -	2

- - = question not asked

used to compare with the present study as it contains a sufficient number of randomly selected multi-ethnic farm families. These data are significant as they include nine different ethnic groups: 51 Iban, 20 Kedayan, 12 Malay, 6 Kayan-Kenyah, 4 Penan/Malay, 4 Chinese, 2 Berawan, 2 Keput, and 2 Penan farm families.

Criteria for Selecting Indicators of Agricultural Development:

1. Widely accepted by agriculturists of the area as a superior practice;
2. A specific item that is easily discernible by both the respondent and the interviewer;
3. The items must be universally applicable, feasible, and economical in all regions and to most all religious groups, e.g., pigs could not be used by Moslem farmers;
4. The items should fit into a Guttman scale of agricultural development with a coefficient of efficacy (C.E.) of .66 or more for each item;
5. The cases should, if possible, number at least 100 for Guttman scaling purposes and be randomly selected so as to be able to generalize to the population covered;
6. The items must cover and discriminate as wide a spectrum of the population as possible, yet still not be something everyone has. Strictly speaking, the range of responses should be between about 20 and 80 percent to prevent spuriously high or low coefficient of scalability. (Since the index above will be used as a bench mark or base line from which to measure future development, the strong items that are less than 20 percent are included); and
7. The items should be no closer than 5 percent from one another, ideally.

Once these criteria are met, the resulting index should give a quite reliable and valid means of measuring agricultural development of most farm families in Sarawak, simply by giving a score for the number of items present. A more detailed survey schedule would ask to what extent the items or practices have been developed. But the usual survey errs on the side of collecting too much data that is irrelevant in addition to being hard to collect and analyze. Just having an item or items from this index tells a great deal about a family's present level of agricultural development and even its capacity for further adoption of new practices (Schwenk: August 1973).

The advantage of this scaling approach is that the items are quite easily asked or observed unobtrusively. Therefore it is a valuable method for quick surveys to get an objective and general understanding of the needs and "learning readiness" of the people one is working with before programs are attempted that are too elementary or more often "over the heads" of the people. This research strongly supports the developmental axiom: "Start where

the people are and build on what they know." The Methodist Agricultural Extension Service, Kapit (of which the author is manager) has used these research findings to plan, evaluate, and refine its program.

A PROGRAM WITH SPECIFIC AGRICULTURAL OBJECTIVES

Agricultural training, field verification trials, marketing research, feasibility studies are used so as to extend proven and profitable practices to farmers. First priority is being given to training an indigenous staff in agriculture and to coordinating the work of home demonstrators, nurses, paramedics, and pastors as rural development teams for an integrated approach to the whole person. The teams in turn are organizing and teaching "Committees on Progress" in some twenty-seven neighborhood school districts with an average of ten longhouse-villages each. Revitalization of attitudes and values—e.g., about agriculture, nutrition, responsible parenthood, and health—are taught through discussion, not just authoritative lectures.

Specific Agricultural Objectives:

1. To increase production and quality of the staple foods, especially wet rice, through the use of: irrigation and drainage, judicious use of agro-chemicals, better seeds and cultural practices.;
2. To produce more green leafy vegetables such as *changkok manis, kongkong (Ipomoea), biam* and others that are easily grown and highly nutritious;
3. To supply more fruits for the diet through improved strains of systematically cultivated fruits, especially such nonseasonal fruits as bananas, papayas, and citrus;
4. To insure the constant availability of cheap high-grade protein, such as can be found in properly built and maintained fish rearing ponds; and
5. To grow improved poultry for eggs and meat wherever feasible.

Since this paper deals with agricultural development the other rural life development objectives have been left out. These objectives will become more detailed and refined as the program is evaluated with the rural people.

Summary and Conclusions

This paper has presented the problems encountered in the Upper Rejang Valley, which are closely akin to those in other areas of Sarawak except that they are accentuated in this vast remote hinterland.

The needs were discovered through use of an interview schedule of randomly selected Iban farm families. Then the Guttman scaling technique was

used to distill out the most viable agricultural development items from the innovations that may be only exotic or transitory. The Guttman scale also ranks objective items in priority order, from the simplest to the more complex. In order to compare agricultural development in the Upper Rejang with the other regions of the state the more stringent criteria found below Table 3 were employed to arrive at seven strong indicators of agricultural development that are applicable to most agricultural parts of Sarawak. Based on these findings our specific agricultural objectives were listed. It is hoped that this paper has given insights not only the into this particular developing region but that the methodology used might be found helpful in arriving at indices of and objectives for agricultural development in other areas. The problem of "What is agricultural development?" in a given region must surely be defined before programs can be planned, executed, and evaluated.

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THE TRANSITION FROM SHIFTING CULTIVATION TO CASH CROPS: CHANGES IN A LAND DAYAK VILLAGE

BOUWE G. GRIJPSTRA
Agricultural University Wageningen, The Netherlands

INTRODUCTION

For the anthropological or sociological researcher seeking facts about the past, the memories of his informants are normally his only sources of information. Needless to say, this information is not always very precise - - especially when it concerns matters that to the informants seem irrelevant, like the average size of rice paddies, the number of people planting cash crops, and so forth. Such limited data make it very difficult to know what changes have taken place and to assess those which are likely to occur in the future.

Very fortunately for me, agricultural statistics had been collected on a village level in some parts of my research area, the Upper Sadong District in the First Division of Sarawak, by J.P. Andriesse.[1] The most detailed information, that obtained from Kampong Pichin in 1962, he published (Andriesse 1962). He repeated the same survey in 1967, but did not work up and publish the results. In 1972 the present author conducted a third and identical survey. The same questions were included that had been asked in the two previous surveys. Also, the actual enumeration was conducted in the same style as before; namely, in two days by a group of ten Land Dayak teachers, trained as interviewers, using a one-page questionnaire.

BACKGROUND TO DEVELOPMENT IN PICHIN

Kampong Pichin is situated two miles southwest of Tebakang bazaar, which is an old center for administration and commerce. Since 1957 the Serian-Tebakang road has been extended to Tebedu, and buses ply along this road, stopping at Pichin several times a day. Pichin is an extraordinarily large village of 162 doors, the second largest in the district (the average number of doors for Land Dayak villages in the district is only 48 doors).

Pichin has always been well known for its fine basketry work, bamboo carvings, and the diligence of its people - - and more recently for its development too. In 1962 Andriesse stil considered Pichin to be fairly typical for a

large proportion of Land Dayak villages in the district, and particularly for the Kayan subtribe, it being poor and only recently opened up. In 1972 we cannot say this anymore: since 1963 several community projects have been implemented in this village, like the leveling of the village site and the rebuilding of the longhouses, the construction of a waterpipe system and a community hall.

On the individual level, many people in Pichin have started to grow pepper and rubber on a large scale. They learned the methods of cultivation of pepper while working for Chinese pepper growers, sometimes as far away as the Matang area near Kuching. The extensive planting of pepper is especially surprising, because for a long time it was thought that successful cultivation of pepper was too complicated to be carried out by Dayaks. A comparison with a sample of 400 Land Dayak households in the district shows that the average household in Pichin owns more pepper vines and rubber trees than the district average. The money for necessary investments came from occasional work done for the government and for Chinese pepper growers.

But perhaps the most important thing that happened during the process of development in Pichin is that its inhabitants have realized their own ability. In adapting themselves to the changing circumstances so far, they have become self-confident people (Van Berkel and Nottelman 1973). This is in strong contrast with the situation that prevailed about twenty years ago, along the Kayan branch of the Sadong River. Geddes (1954) described that situation as "they have the sense of being losers, rather than of being deprived" and "acceptance, softened by self pity is the natural course."

Two major circumstances are often said to have influenced the rapid development of Pichin. Firstly, the planting of pepper is partly attributed to the presence of a shopkeeper with sufficient financial resources to provide the villagers with fertilizer on credit. Living in the village, he can control the repayment of debts satisfactorily. Secondly, the improvement of the living situation within the village is attributed to the patient and capable guidance given to the village by the then Mr. Dago anak Randen[2] when he was headmaster of St. Dominic's school in Pichin. As a politician and backbencher of the Alliance Government, he provided a constant link between the administration and the village. This political linkage with the government brought many official visitors to the village, which certainly gave the people the idea they were performing outstandingly.

Here I would like to add a third circumstance which, together with the first two, caused the rapid increase in cash crops and the considerable income derived from them, which in its turn stimulated the self-confidence of the people. For a long time *adat* regulations prohibited the planting of rubber in Pichin and in many other villages. It was believed that rice could not grow well side by side with rubber. We can also safely assume that the village elders did not want their authority challenged by the presence of a group of energetic young men with money incomes derived from rubber. The skepticism of the

Brooke regimes and the first years of colonial rule about cash crops for Dayaks would have reinforced these *adat* rules which forbade the planting of rubber. In consequence the inhabitants of Pichin did not have substantial sources of cash income to buy articles like clothing and oil pressure lamps of which they became increasingly aware. The construction of the road in 1957 made Pichin, the largest reservoir of relatively poor underemployed people in the region, easily accessible to to government agencies and established pepper growers looking for laborers.

By working for experienced pepper growers the youngmen of Pichin became acquainted with the method of cultivation of this crop. Living outside the village for some time and returning as comparatively rich men diminished the respect they were willing to pay to the village elders and their regulations. Moreover, the recently-introduced Christian religion offered a complete new style of life and security to those who could find no tolerable compromise with the original *adat*. And the government's introduction of the Rubber Planting Scheme in 1956 also played its part in ending the old *adat* prohibition on the planting of cash crops.

The first planting of pepper and rubber occurred at the same time. Income can be derived from pepper after only three years, while rubber needs seven to ten years. With pepper there was already sufficient knowledge, and the shopkeeper in the village provided a ready market at high prices -- M$140 -- per pikul or black pepper in 1960. The initial planting of rubber must mainly be attributed to the cash subsidy that the government offered. Later on many people also planted some acres with home cultivated rubber seedlings.

The possession of two cash crops in sufficient quantities caused the economy of Pichin to be more stable, and the people were more willing to rely on these crops. Realizing the success of the new crops, the village elders soon forgot about their taboos and willingly admitted that in the case of modern crops the ways of the young should be followed. This early retraction prevented major cleavages from coming into existence.

Reviewing the development process we see that the lack of rubber gardens around 1950, due to certain well-enforced *adat* regulations, influenced the concentration on pepper after 1960. An economic drawback has been changed for the better. The solidarity in the village has not been affected. Capable leadership preserved it as much as possible in this time of great change, while attention from the outside also considerably reinforced it.

In the foregoing we have explained the changes in the agricultural production pattern by economic incentive: an increased need for cash. This explanation differs from two well-known explanations of agricultural growth often given in rural sociology, those of neo-Malthusian and of Ester Boserup. Simply stated the former argue that the growth of the population is limited by improvements in agricultural production techniques; the latter states that

population growth is the primary force which changes agricultural production methods. She points out that often farmers have been found reluctant to intensify their agricultural production methods without strong motivations because, besides a possible higher total production, it meant lower production per unit of labor-input. The case of Pichin shows much evidence supporting the second view. There the population had already increased considerably due to improved medical services. Shifting cultivation in Pichin had already reached a stage of bush fallow, which leaves very many grasses alive and makes weeding an arduous job. Comparison of shifting cultivation around 1950 in the First Division, as described by Geddes (1954), where land was relatively scarce, and in the Third Division, described by Freeman (1955), where land was still abundant, shows a much greater number of days used for weeding in the first case.

Adult workdays expended	1st Div.	17 – 40
on weeding per acre:	3rd Div.	12 – 20
Estimated return per	1st Div.	1.20 – 2.50
workday in gallons or rice:	3rd Div.	1.53 – 3.84

So the change from shifting cultivation with bush fallow to permanent agriculture has not meant too great a change in the production per unit of labor-input. But even now some people in Pichin complain: "now we are modern we have to work much harder" (Van Berkel and Nottelman 1973). The reason why I have pointed out an economic incentive, an increasing need for cash, as the major explanatory force is that it is the most obvious one in the short term. Moreover in the case of Pichin the growth of the population, the availability of more intensive agricultural methods, and the increasing need pattern are all caused by the same factor, increased with a more differentiated society.

FACTS AND FIGURES

Population

In 1962 the population of Pichin consisted of 863 persons; this number increased to 1,069 in 1967, and to 1.117 in 1972. A complete breakdown of these totals into sex and age groups is given in the population pyramids in Figure 1.

N.B. The bases of the pyramids for 1962 and 1967 have been raised in order to facilitate following cohorts in time.

The annual population growth during the complete ten-year period was 2.6 percent. It being much larger for the first half, 4.4 percent, than for the second, 1 percent only. Traditionally, migration does occur among the Land Dayaks but is almost completely restricted to the migration of marriage part-

ners; marriage among the Land Dayak is ambilocal. Nowadays people also leave their village for the towns and bazaars whenever they can find a suitable job there. Both kinds of migration mainly occur in the 20 – 29 year age group. So we can safely assume that nearly all persons in the 0 – 4 age group have been born in Pichin. From that the following average birth rates and fertility rates have been calculated.

	Average Birth Rate	Average Fertility rate
1962 – 1967	38.9	168
1967 – 1972	39.3	177

N.B. In the calculation, that part of the population not reaching the age of five years was neglected. Assuming a slightly lower infant mortality rate between 1967 and 1972, the actual figures for both periods must have been the same with a birth rate of well over 40! There are no reasons why the death rate during the years 1962 – 1967 would have differed considerably from between 1967 – 1972. Hence the drastic change in annual growth must be due to migration.

When looking at the population pyramids, it can be seen that in 1967 the male/female ratio is the best balanced one. As described before, in the early sixties there were not enough opportunities for cash income in the village, causing many men to look for employment elsewhere. Between 1962 and 1967 there was an influx of males, while after 1967 many have left the village. The latter group probably consisting of young men with sufficient education to qualify for jobs outside agriculture. These two contrasting tendencies in the population explain the difference in growth rate. The part of the population younger than 20 years has increased from 49 percent in 1962 to 52 percent in 1972.

Occupation

Table 1 shows the different types of economic activities men and women are engaged in.

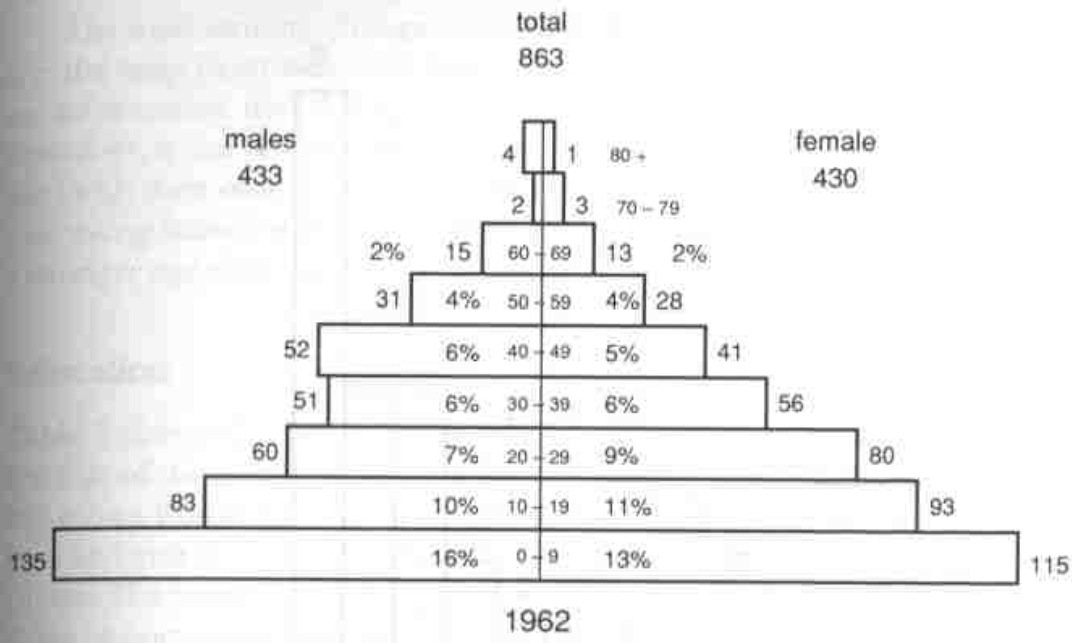
"Farming" means working on own agricultural holdings only.

"Permanent work" means working for a monthly wage.

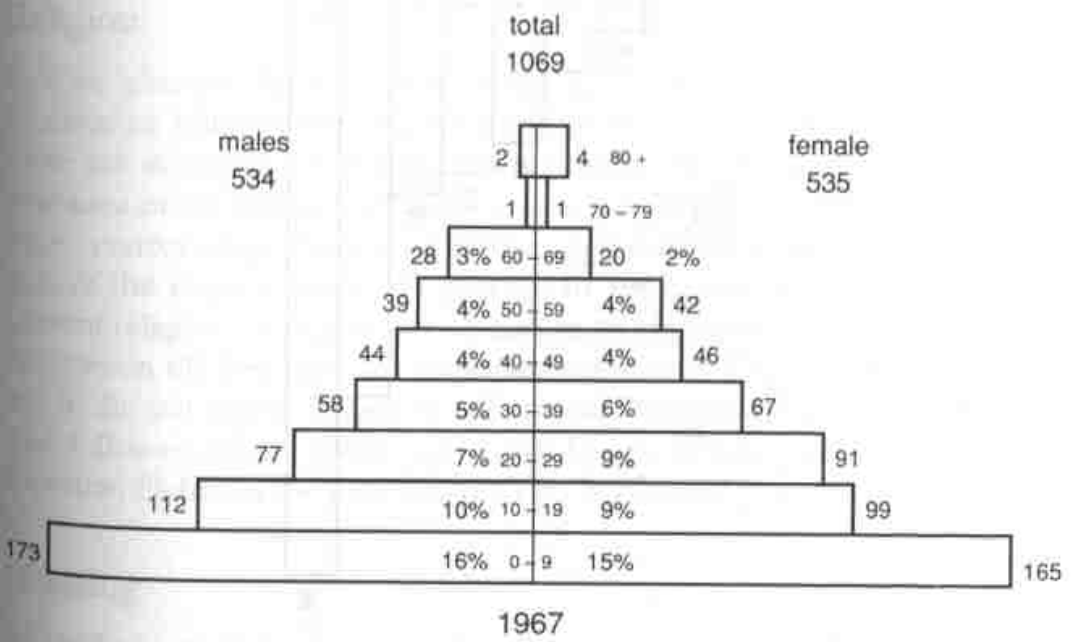
"Occasional laboring" means normally working on own agricultural holdings, but working for a payment whenever there is an opportunity.

"Not economically active" includes schooling and housekeeping activities.

Fig. 1 Population pyramids of Pichin for 1962, 1967, and 1972

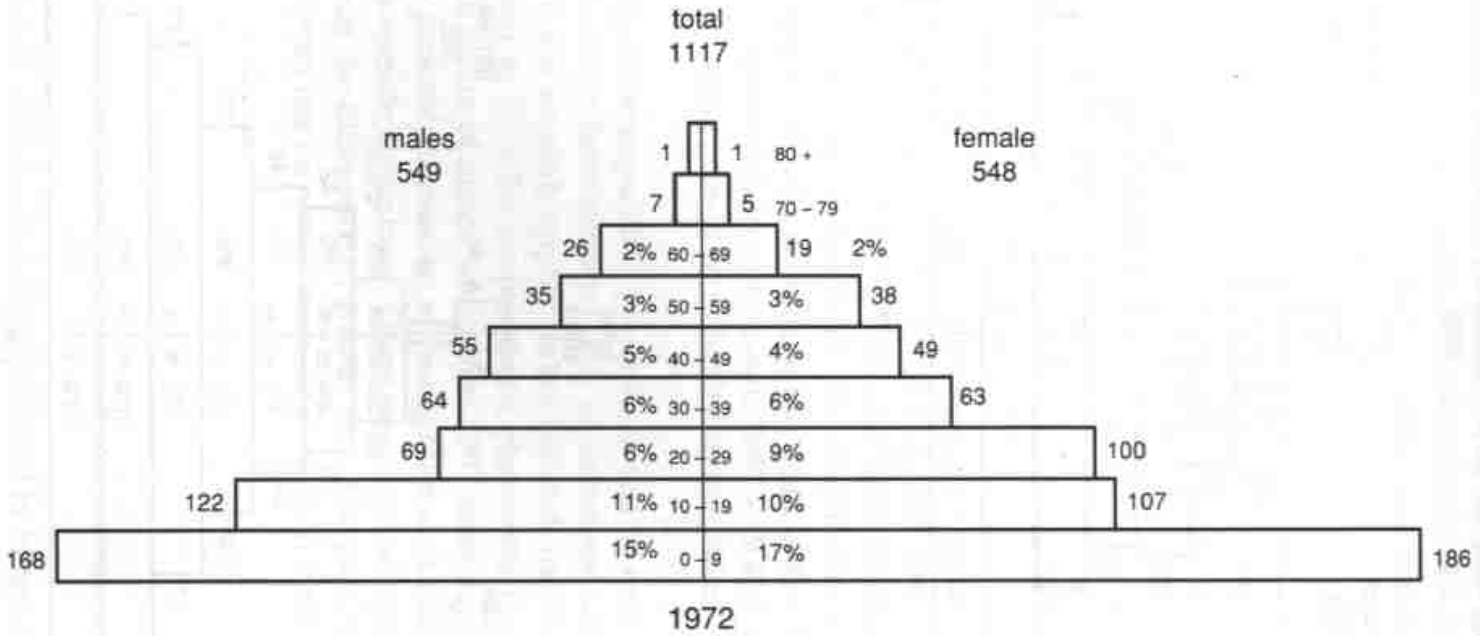


1962



1967

1972 on next page


total
1117
males
549
female
548
1
1
80 +
7
5
70 – 79
26
2%
60 – 69
19
2%
35
3%
50 – 59
3%
38
55
5%
40 – 49
4%
49
64
6%
30 – 39
6%
63
69
6%
20 – 29
9%
100
122
11%
10 – 19
10%
107
168
15%
0 – 9
17%
186
1972

which are common among the people of old age and among youngsters who have left the school recently.

The most striking changes that have taken place between 1962 and 1972 are: the large decrease of the number of occasional laborers. Because there is no information that the opportunities for additional income are very few nowadays, it can be concluded that at the moment the people are fully occupied with their own enterprises which provide a sufficient income. The other interesting feature is that the tendency of girls being engaged in agriculture at a younger age than boys has disappeared almost completely.

Education

Table 2 shows clearly the increased importance attached to education. The fraction of the population in the age group 6 – 9 years engaged in education has grown from half to three-quarters. This means that still 25 percent of the boys and girls do not receive regular education and are left free to roam in the village. The tendency that prevailed in 1962 to think that education was something important for boys only had vanished by 1972, boys and girls being represented equally among the pupils. In the future this will lead to equal standards of education among the males and females. The low percentages in the 6 – 9 years age group in 1972 are due to the fact that the enumeration was done a few week before the annual intake of 6 - years - old.

Religion

In 1962 after the Roman Catholic Mission had built a school in the village, Christianity's first followers in Pichin received a great deal of opposition from those still adhering to the traditional religion. The modern and well-to-do appearance of the Christian's houses, as well as the Christian religion's lack of time - consuming ceremonies have caused a steady growth of the Christian part of the population, to 21 percent in 1967, and 39 percent in 1972. At present religion is not a matter of discussion any more. The young delay their conversion till they have left their parents' home. The traditional religion is left to die out together with its adherents. Young and old, Roman Catholics and followers of the traditional Land Dayak religion, all see a completely Christian Pichin in the near future (Van Berkel and Nottelman 1973).

Housing

In 1962 nearly all the households (95) were living in five longhouses, with an average size of 18 doors per longhouse. The longhouses were connected by plank walks, which resulted in the whole community living close together, raised several feet from the earth, as can be seen in the photographs in Lee

Table 1: Occupation for three age groups in 1962, 1967, and 1972

Sex	Age Group	Farming			Permanent Work			Occasional Labouring			Not Economically active		
		'62	'67	'72	'62	'67	'72	'62	'67	'72	'62	'67	'72
Males	10 – 19 yrs	24.1	39.3	43.3	3.6	0.9	1.6	18.1	0.9	2.5	54.2	58.9	52.5
	20 – 59 yrs	39.2	74.8	87.0	1.0	7.8	8.1	55.7	12.4	3.1	4.1	5.0	1.8
	60+ yrs	9.5	51.6	67.6	–	–	–	9.5	–	–	81.0	48.4	32.4
Females	10 – 19 yrs	64.5	43.4	56.1	–	–	–	–	1.0	0.9	35.5	55.6	43.0
	20 – 59 yrs	83.9	77.6	87.2	–	0.4	–	–	0.8	–	16.1	21.1	12.8
	60+ yrs	11.8	12.0	44.0	–	–	–	–	–	–	88.2	88.0	56.0

Table 2: Engagement in education as a percentage of age groups in 1962, 1967, and 1972

Sex	Age Group	$P_1 - P_4$			$P_5 - P_6$			$F_1 - F_2$			F_3^+			Percentage of Age Groups Engaged in Education		
		'62	'67	'72	'62	'67	'72	'62	'67	'72	'62	'67	'72	'62	'67	'72
Males	6 – 9 yrs	54.2	74.6	60.0	–	–	–	–	–	–	–	–	–	54.	74.6	60.0
	10 – 19 yrs	14.5	14.3	12.3	9.6	17.9	18.0	3.6	–	4.9	–	0.9	0.8	27.7	33.0	36.1
	20+ yrs	–	-	–	-	-	-	–	–	–	–	0.4	0.4	–	0.4	0.4
Females	6 – 9 yrs	39.5	67.7	56.6	–	–	–	–	–	–	–	–	–	39.5	67.7	56.6
	10 – 19 yrs	16.1	8.1	15.0	–	20.2	15.9	–	–	5.6	–	–	0.9	16.1	28.3	37.4
	20+ yrs	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Yong Leng (1970). This situation had changed considerably by 1972, when only half of the households were living in 12 longhouses, with an average size of 7 doors per longhouse.

The old village, being very crowded and dirty after a long period of use, needed reconstruction. After a long period of discussion a start was made when the government promised to undertake the leveling of the village site free of charge. The old longhouses were torn down and temporary ones were built with earthen floors. This occurred around 1967. In 1972 a start was made on building the new permanent longhouses. These are two-story buildings made from concrete and wood. Lacking verandahs, the main characteristic of the traditional longhouse, they resemble the urban terrace houses more.

Although the promise made by the government to level the village site made the people of Pichin decide to rebuild their village, it financed only a minor part of the total costs of the reconstruction. The greater part had to be provided by the people themselves, which they were able to meet from their increasing pepper harvests. But at the time they made the decision they could not guess their future incomes with any certainty. After the demolishing of the old village, the Christians preferred to live in a separate part of the village, where they built detached houses. These houses were designed after their own ideas, needs, and welfare. Also people who wanted more privacy and a house according to their own style became Christian in order to move to this section of the village. The reconstruction of the village has also had an impact on the size of the household group. The average size decreased from 9.1 persons in 1962 to 7.4 in 1967 and 6.9 in 1972. The median and mode have remained stable at 7 persons per household throughout these years. See also the frequency distribution in Figure 2.

Concluding, we can say that in 1962 lack of space for the extension of longhouses resulted in overcrowded doors. Also there is an increasing tendency among young couples (very often Christians) to build a small separate house for themselves. However, the basic family pattern of two generations living together, sometimes with a third generation added, had not changed.

AGRICULTURE

Subsistence Crops, Hill and Swamp Rice

In 1962 all households did plant hill and swamp rice for home consumption with the aim of complete self-sufficiency. Figure 3 shows how this situation has since altered. Without any special encouragement by the government in this village, the cultivation of hill rice has gradually become less important compared with the cultivation of wet rice in small valleys. Total production of hill rice in 1971/1972 was approximately 58,000 lbs. from 160 acres and of swamp rice 123,000 lbs. from 230 acres. For 1962 these figures are hill rice 106,500

Fig. 2 Size of Households in 1962, 1967 and 1972

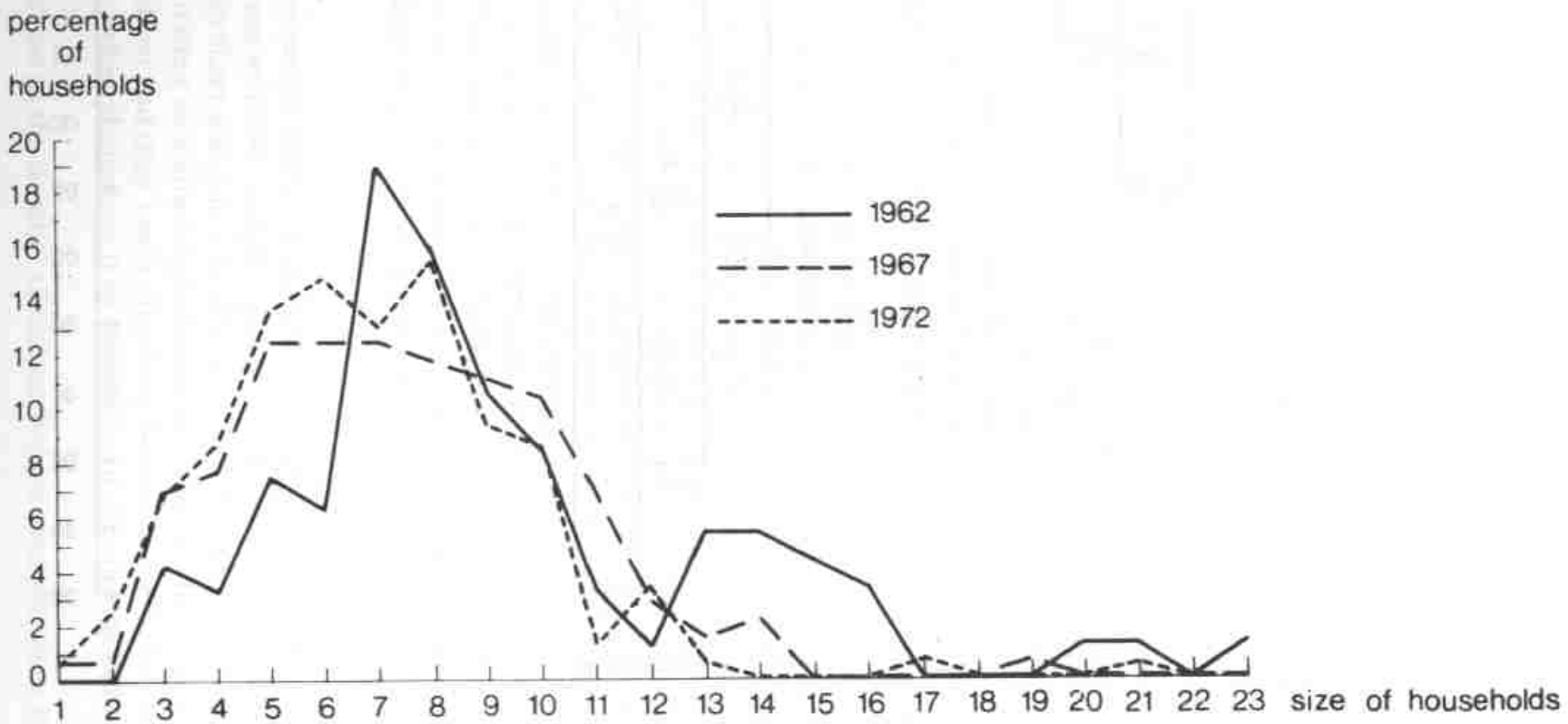
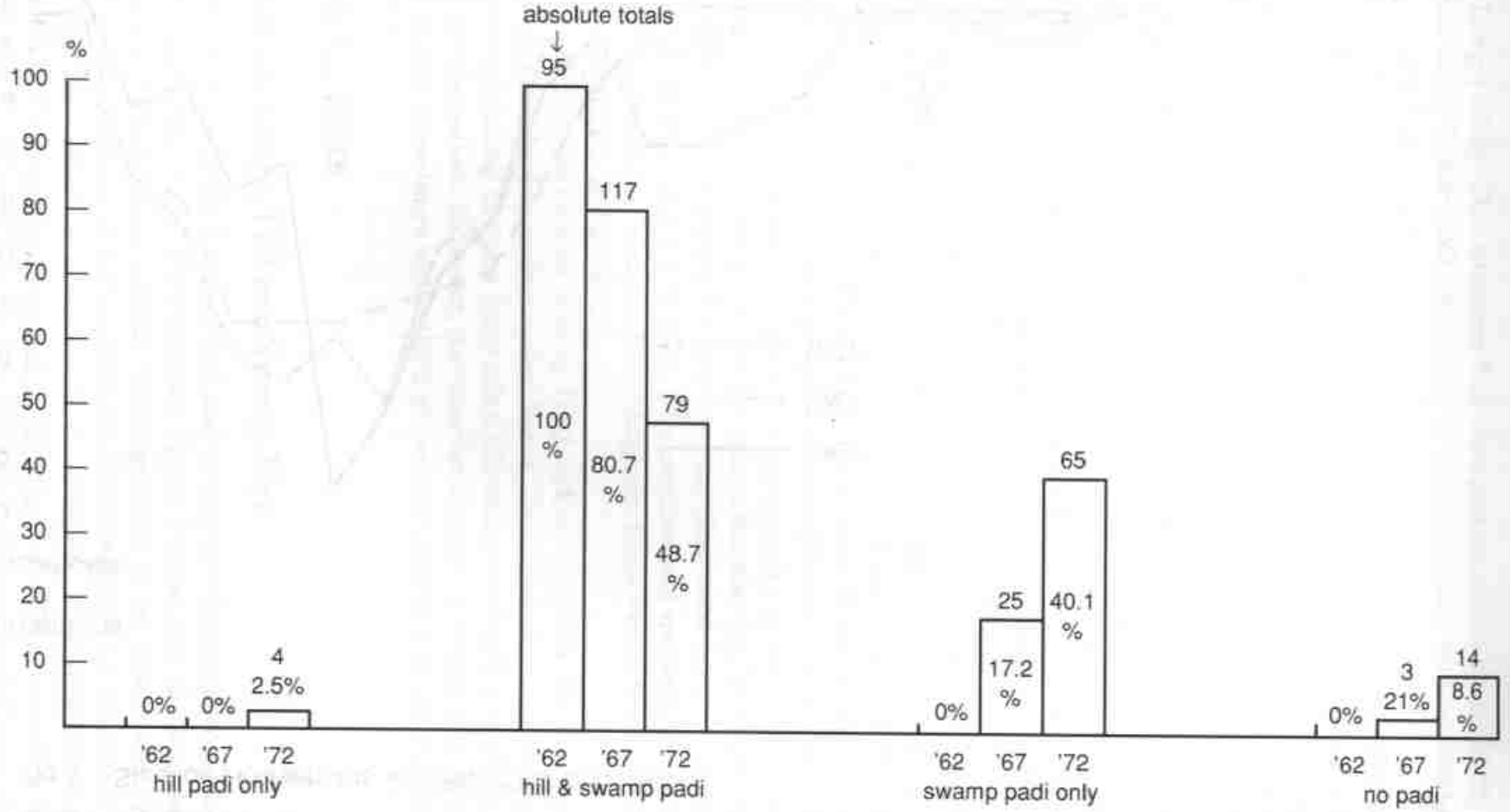


Fig. 3: The cultivation of padi in percentages in 1962, 1967, and 1972



lbs. from 506 acres and swamp rice 98,700 lbs. from 230 acres.

In light of the fact that self - sufficiency in rice was not the ultimate goal of many households in 1972, the drop in the percentage of the households attaining that self-sufficiency from 56 percent in 1962 to 33 percent in 1972 cannot be regarded as a disastrous food shortage situation.

Cash Crops

The extent to which the cash crops rubber and pepper are present in Pichin can be seen in Figure. 4.

Rubber

For a long time there was a taboo on the planting of rubber. The possible origins of it have been discussed earlier in this article. The first rubber plantings tolerated in Pichin were made after 1956 under the subsidized Rubber Planting Scheme. The encouragement of the government --demonstrated in the form of subsidies distributed -- has broken the taboo very easily and already in 1962 92 percent of the households owned some acres of rubber. The total acreage in the village was 212, which averages slightly more than two acres per household.

Since then the acreage under rubber has increased steadily, because most of the households also planted rubber from home - cultivated seedlings. In 1967 379 acres were planted with rubber and in 1972 the total acreage was 505, consisting of 265 acres of subsidized and 240 acres of unsubsidized rubber. In 1962 the trees were still too young to be tapped. But in 1967, when the price of rubber at village level was around $M0.55 per kati, 306 acres were tapped by 110 households. The total average yield per day was about 800 katis, or 2 2/3 kati per acre, which is still only a quarter of the possible production per acre in a well maintained and manured plantation.

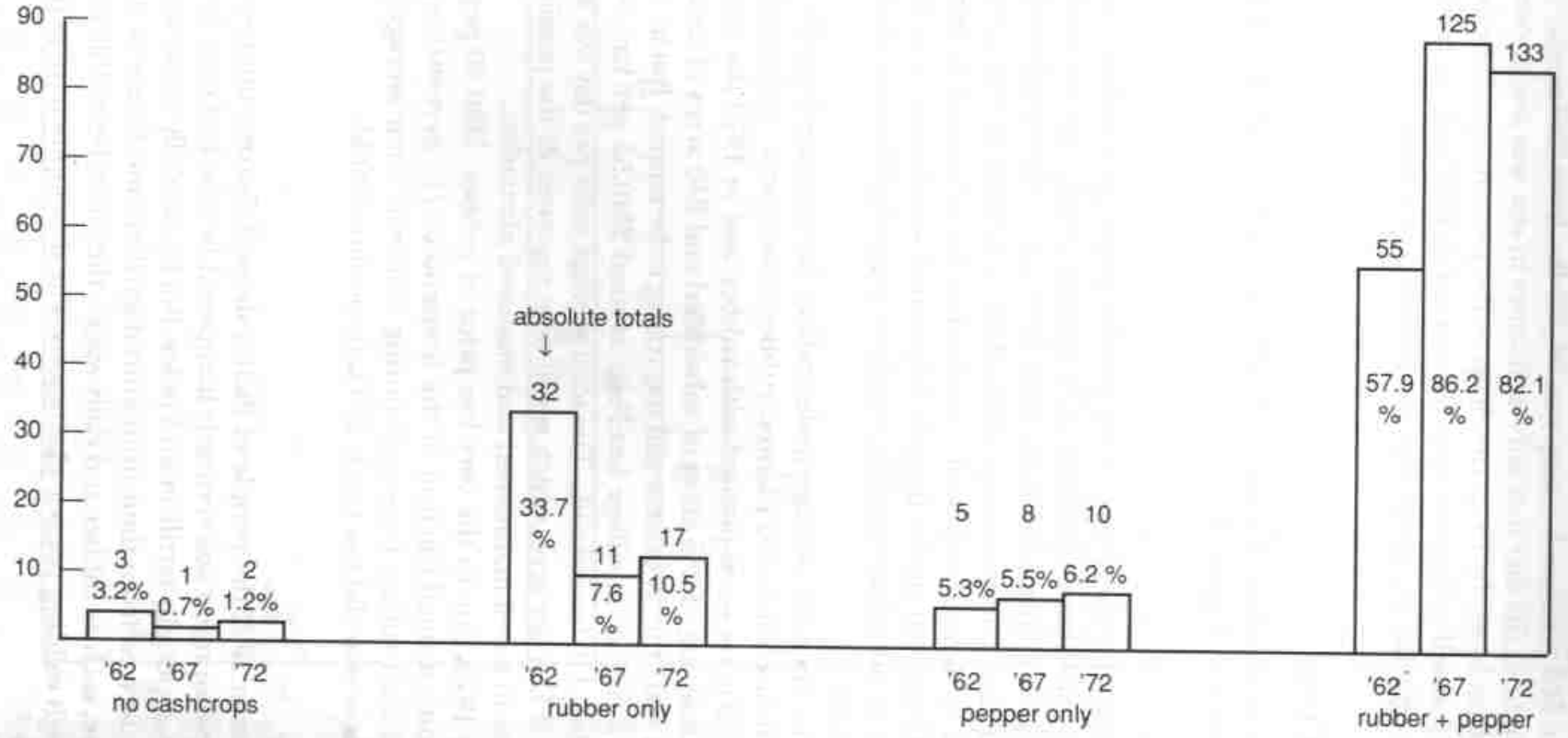
In 1972, due to the very low price of rubber, M$0.30 per kati at village level, only a small fraction of the households (15 percent) reported having tapped their rubber trees at all during that year. Their average production for the whole year did not reach 250 katis per household.

Pepper

Already in 1962 the people of Pichin showed a strong interest in pepper, but the development was seriously hampered by a lack of cash for the necessary inputs, especially fertilizer and poles. But by carefully reinvesting whatever income derived from their unmanured gardens and by use of other sources of income, such as rubber and daily wages, they have been able to establish large and high yielding pepper plantations. The development of pepper is shown in Figure 5.

The small increase in the number of mature pepper vines between 1967

Fig. 4: Percentage of households cultivating no cashcrops, rubber only, pepper only and both rubber and pepper in 1962, 1967, and 1972



and 1972 is due to a large number of vines 6 to 9 years old that died. Also footrot had been introduced, an infection that cannot be cured and about whose prevention little is known and even less is done in the village. In 1972 already 70 percent of the households reported to have lost at least some pepper vines totalling 25,000 vines, which equals an area of 41 acres. Within this group seven households had not started with any replanting.

The yields of the pepper plantations have increased considerably along with the higher investments in fertilizer. While in 1962 the average production per vine was slightly above one kati of black pepper, this had increased to 2.8 kati in 1967 and 3.6 kati in 1972. However, harvests of 5 kati per vine should well be possible in Pichin when the gardens are properly looked after. Nearly all the produce is sold as black pepper. In 1972 only 1 1/2 percent of the total harvest was processed into white pepper.

The total input of fertilizer amounted in 1972 to 43,250 kgs., with a value of M$12,110.-. Of those farmers with fruit-bearing pepper vines 90 percent gave them at least some fertilizer, while most of the farmers also applied fertilizer on their immature pepper vines. The average application of fertilizer with fruit bearing vines is a little more than 3 lbs. per vine, which is fewer than the 4 1/2 lbs. recommended by the Department of Agriculture.

Livestock

The part of the population engaged in the rearing of livestock, either pigs or fowls, or both, is presented in Figure 6. The average number of birds among the households who raised fowl remained reasonably stable at 7.5 birds between 1962 and 1967. The decline in the number of pigs is remarkable. In 1962 nearly 90 percent of the households raised pigs, the average size of their stock was 4.9 animals. In 1967 these numbers had dropped to 28 percent and 1.25 animals, this level still being the same in 1972.

The decrease in the number of pigs reared in the village must be attributed mainly to a new regulation that pigs had to be kept in sties. The traditional way of pig keeping is that the pigs roam free around the longhouses and find the greater part of their food themselves. After the leveling of the village site the pig fencing regulation was made in order to keep the village clean. The people finding themselves unable to feed more than one pig twice a day thereafter reduced their stock. It should be noticed that Christians, unlike the adherents of the traditional religion, do not need pork for their religious ceremonies.

Vegetables and Fruit Trees

In 1962 only two households were actively growing vegetables, which had increased to 24 (15 percent) in 1972. The most popular vegetable was *changkok*

Fig. 5: Total number of vines in 1962, 1967, and 1972
(number of households engaged in pepper
cultivation in 1962 = 60, households
1967 = 133 "
1972 = 143 ")

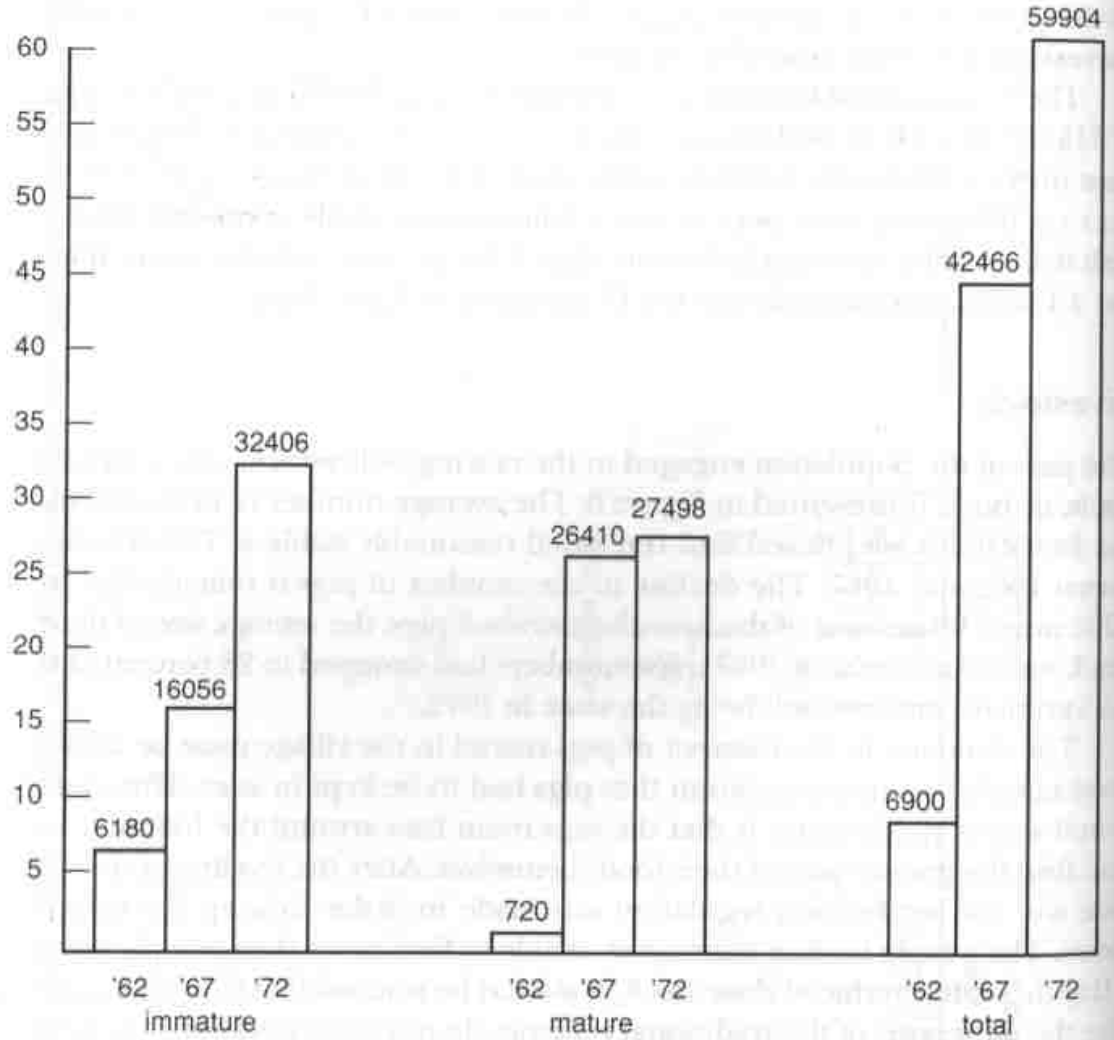
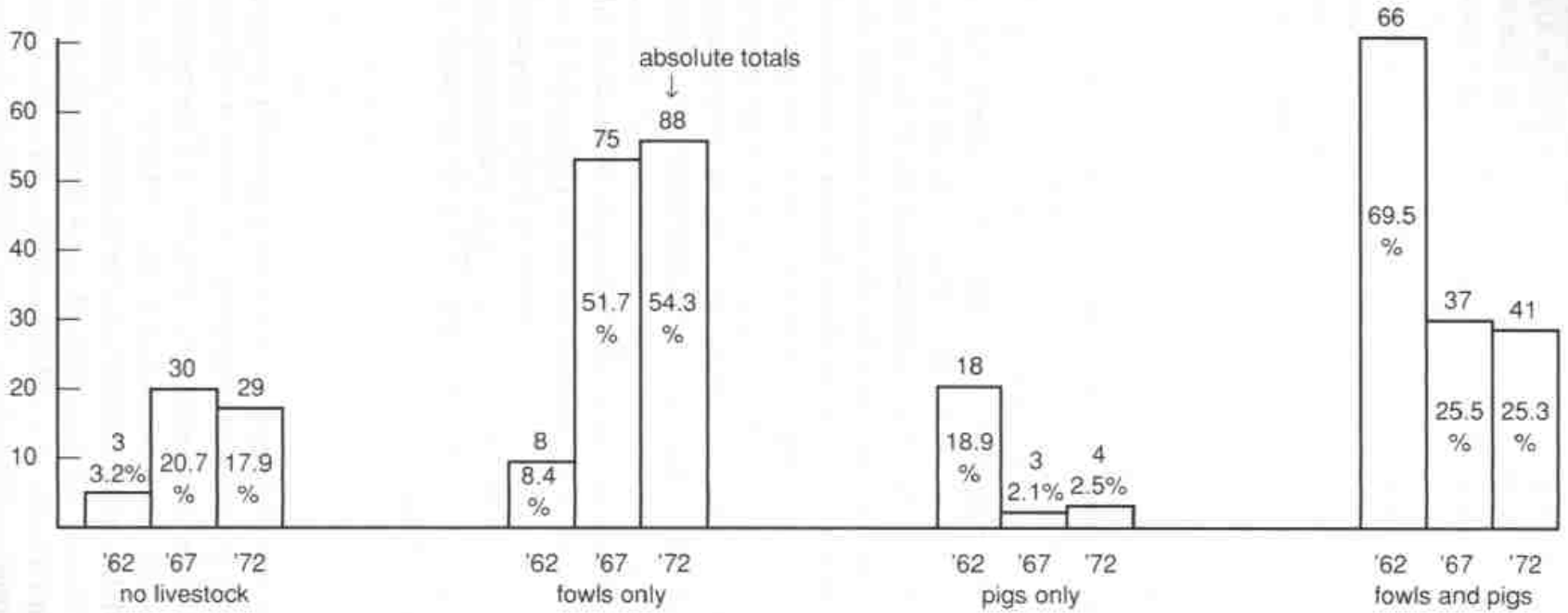


Fig. 6: Rearing of livestock in 1962, 1967, and 1972



manis. The remainder of the population was still relying on collecting edible plants from the jungle, or not eating any vegetable at all. It should be remarked that Land Dayaks call "vegetables" any dish that is eaten together with rice, be it either meat, fish, snails, fruits, etc. of which they think one at a time to be enough.

Throughout the years the ratio of the households in possession of some fruit tree has remained at more than 90 percent. The most popular kinds are *rambutan* and *durian*, with *langsat* being a good third. The number of households having kinds like orange, mangosteen, papaya, and soursop has not surpassed the 5 percent level yet.

Fallow Period

From the previous discussion it can be seen that in a ten-year period the population increased by 29 percent and the cultivation of cash crops has become a major activity. Both factors must have had an impact on the demand for land suitable for agriculture. It has already been shown that the acreage of swamp rice remained stable, while the acreage of hill rice decreased.

How far have these factors influenced the fallow period between two cultivation cycles of hill rice? In 1962 the area under hill rice was approximately 506 acres, while in 1972 it was about 160 acres. In the same period the area of land, not liable to flooding under cash crops increased from 222 to 645 acres. To know the effect of these changes on the fallow period the total acreage of land suitable for hill rice and cash crops should be known. From Andriesse (1964) we know the total area of Pichin to be 5,909 acres, of which 3,300 acres are suitable for hill rice, pepper, and/or rubber. If it is assumed that of this area about 500 acres are in use by people from other villages, it follows that the fallow period changed from 5 years in 1962 to 13 1/2 in 1972. The conclusion may be that the way the people of Pichin responded to an increasing population and new opportunities in agriculture was that it has lengthened the fallow period. In 1972 we even see four households growing hill rice only, in a sufficient quantity.

Income

The people have been asked about their monthly incomes. Only those with a permanent occupation and occasional laborers could supply reliable information. In 1972 the average monthly income of 15 persons with a permanent job was M$200.-, and of 9 occasional laborers M$130.-. The average income of the farmers can be calculated from the production of pepper and rubber. The total production in 1972 was 960 pikuls of black pepper and 20 pikuls of white pepper, with a total value of M$100,000.-, and only a few hundred katis of rubber amounting to M$1,750.-. About M$12,000.- was spent on fertilizer. This

results in an average income from agriculture of M$617.- for 162 households (net M$543.-).

The figures for 1967 are M$44,000.- derived from rubber and M$52,000.- from pepper, with an average income of M$662.- for 145 households. Owing to extensive pepper plantations the absolute average income from agriculture was in 1972 not very much lower compared with 1967, though the price of rubber had fallen by 50 percent in this period. But it is also clear that even in a village with hardworking and progressive farmers their incomes lag behind the incomes of those villagers who have been able to secure a permanent, or even an occasional job.

Conclusions

Here are presented the major conclusions from the comparison between 1962, 1967, and 1972.

1. The birthrate in Pichin has not changed very much in the last ten years, and is still close to the maximum.
2. In 1972 the men of Pichin were profitably and fully employed on their own agricultural holdings.
3. In 1972 all children of 6 – 9 years were still not going to school regularly. The marked difference in school attendance between boys and girls in 1962 had disappeared by 1972.
4. The traditional Land Dayak religion in Pichin is vanishing quickly. Young people choose Christianity, while the elders stay passive, not adhering actively to either religion.
5. There is a tendency among young married couples to build a house for themselves early after marriage. This tendency has reduced the number of very large households.
6. The importance of food crops has decreased. The area under hill rice in 1972 was only one quarter of that in 1962, while the area under swamp rice remained constant.
7. The response to the Rubber Planting Scheme has been satisfactory, 265 acres for the whole village. Nearly the same acreage has been planted with home - grown rubber seedlings.
8. Pepper had become an important cash crop by 1972, its total produce having a value of M$100,000.- or M$600.- per household. About three-quarters of the growers have lost an average number of 250 old or diseased vines.
9. From 1962 to 1972 the quantity of poultry remained stable, while that of pigs dropped to one - quarter of its original size.
10. By abandoning the cultivation of hill rice, and an increased reliance on cash crops, the fallow period has changed between 1962 and 1972 from 5

to 13 1/2 years.

11. The average income from farming has not changed substantially between 1967 and 1972. However in 1967, 45 percent was derived from rubber and 55 percent from pepper, while in 1972, due to the low price of rubber, more than 90 percent came from pepper.

Some further interpretations of the developments in Pichin during the ten-year period are added:

a. When circumstances are favorable, taboos based on the idea of limited goods cannot prevent the introduction of cash crops for a very long time.
b. The role of population pressure and of the availability of new crops as conditions for agricultural growth can hardly be disentangled. Normally in third world communities they are both the result of the introduction of new techniques (medical and agricultural) simultaneously by the same type of agents.
c. The changes in the agricultural pattern in Pichin were not primarily caused by subsidies. Besides the rubber gardens under the Rubber Planting Scheme, the people have planted the same acreage with home-cultivated rubber seedlings on their own initiative. The planting of 140 acres with 85,000 pepper vines before 1973 has been done without any encouragement by way of subsidies. The gradual abandoning of the cultivation of hill rice, and the concentration on rain-dependent rice in small paddies has also taken place without the Assistance to Padi Planters Scheme being implemented in the village.
d. The number of pepper vines that have died, 25,000 vines, equal to 41 acres, shows the precariousness of the prosperity in Pichin. Because hardly any knowledge about the prevention of footrot exists in the village, a few severe attacks of this contagious disease can eliminate all the prosperity existing in Pichin.
e. The campaign to keep the village clean by fencing pigs has reduced the stock by three-quarters of its original size. Because no alternative sources of protein have been introduced, and prices of canned meat and fish are rising constantly, this must have resulted in a poorer standard of diet.

Notes

1. J.P. Andriesse, Senior Officer Soil Survey with the Sarawak government from 1960 until 1971; at present with the Royal Tropical Institute in Amsterdam. I should like to express my gratitude to him for supplying me with the results of his studies and his valuable advice. Of course, I am fully responsible for the interpretations and conclusions presented in this article. For more information about the Land Dayaks in 1972, the interested reader is referred to the author's thesis, which is in preparation and based

on a fairly representative sample of the Land Dayak population in the Upper Sadong District.

2. In 1971 the governor of Sarawak bestowed on him a datuship for his many merits.

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THE *BIIK* FAMILY OF THE SELAKO DAYAK OF WESTERN BORNEO[1]

WILLIAM M. SCHNEIDER
University of Arkansas

The Selako Dayak are an ethnic group of traditionally longhouse - dwelling swidden-farming people. Their villages appear to be confined to the eastern and western flanks of the Pueh Range, which forms the international border between Sarawak (Malaysia) and West Kalimantan (Indonesia) at its western extremity. Preliminary reports of the 1970 census estimated the Sarawak Selako population at 4,207 individuals in twenty-two villages (Unting 1971). The exact numbers of their Indonesian brethren are unknown, but Selako informants indicated there are probably five thousand Selako in West Kalimantan, all on the western flank of the Pueh Range.[2]

The *biik* is the elemental unit of Selako society. (See Freeman 1958 and 1970 for a cognate concept among the Iban). In Selako usage *biik* is a complex term with several different referents depending upon the context of discourse. The three primary referents for the term are the Selako house, the household that occupies the house, and the descent group that includes the present household members and the ancestors from whom the house and other descent - group property have descended to the current household members. The focus of concern here is the *biik* as a social group, a household of living members and a descent group enduring over many generations.

The *Biik* as Household

The *biik* is the group of people entitled to reside in the house. These people operate together as a corporate economic unit. This *biik* family together owns rights in land and certain items of personal property such as gongs, jars, and heirloom jewelry. The *biik* family is a unit of both production and consumption, its members drawing on a common rice store for food and contributing their joint efforts in the production of rice and other foodstuffs. Rubber, pepper, and coconut gardens may also be joint enterprises. The *biik* members usually, but not always, sleep and eat together in the *biik*.

The *biik* family acts together as a ritual unit in giving festivals, offering sac-

rifices, and receiving blessings. Most festivals are given and sacrifices offered by the *biik* family. The various festivals and offerings related to the planting, growing, harvesting and storage of rice are *biik* affairs as, of course, is the production and consumption of rice. Life-cycle rites (birth, puberty, marriage, and death) as well as curing rituals are sponsored by the *biik*.

Selako conceive their ideal *biik* family as a stem – family of three generations comprising a senior couple, one married child with spouse and children, and perhaps the unmarried siblings of the married child. (As will be demonstrated below, only a minority of households are actually of this form). Sometimes in a household of this form the senior couple spends most of its time in a separate hut located at a coconut garden a mile or two away from the *biik*; but even in this situation the senior couple is considered a part of the *biik* family, drawing on the household rice stock and rituals for its sustenance and contributing its efforts to the *biik* labor pool. This separate residence appears to occur only after the senior couple has ritually relinquished the leadership of the *biik* to its child and his or her spouse. Frequently this separate residence does not occur even then.

Leadership

Leadership of the *biik* is ritually vested in the senior couple resident in the *biik* so long as that couple is capable of directing the economic activities of the *biik*. As the couple approaches economic senility (usually around age sixty), leadership is ritually passed to the child and his or her spouse permanently resident in the *biik*. The male leader of the *biik* is customarily referred to as *Tuha Biik* (*Biik* Elder). Where the senior male in the *biik* has died, but leadership has not yet passed to a junior couple, the *Tuha Biik* is a female.

Household Size and Structure

While Selako conceive of their ideal household as a stem-family of the form noted above, actual household form as well as size varies considerably in the two contiguous villages studied. In 1971 there were eighty - six *biik* in the two villages. The census of households comprises data on sixty - five *biik* families.

Household size varies widely. There are from one to fifteen persons in a single *biik* family. The median size is seven, and the arithmetic mean is 6.9. Thirty-one of the *biik* (48 percent) have between six and eight members. Table 1 below presents the range of household size.

Household structure varies as widely as household size. Forty of the sixty-five *biik* (63 percent) are two generations deep, twenty-one (32 percent) three generations, two (3 percent) four generations, and a single aberrant case only one generation. Twenty-one (32 percent) of the *biik* have attached unmarried siblings of the married individuals in the *biik*. Two of the two - generation *biik*

include recently married individuals with no children. Figure 1 summarizes the data on household form.

Post-Marital Residence

Uxorilocal preference

Selako conceive of post-marital residence as uxorilocal. A newly married couple should take up residence in the natal *biik* of the woman. In actual fact there are a substantial minority of virilocal marriages. In a sample of ninety-eight marriages collected in the census, 77 percent (75 marriages) were uxorilocal, and 23 percent (23 marriages) were virilocal. Neolocal marriage residence does not occur among Selako. Two factors in addition to the uxorilocal preference appear to strongly influence postmarital residence choices.

Biik Continuity

Biik continuity is a consideration of overriding importance in marital residence choices although it affects only a small percentage of residence decisions. It is absolutely necessary that one child remain in the *biik* with spouse and children in order to continue the *biik* for future generations. Thus, in the situation where there is only one child available to carry on the *biik*, that child, whether a son or a daughter, must remain. The necessity for *biik* continuity accounts for a small proportion of the virilocal marriages.

TABLE 1. Range of *Biik* Family Size

Number of Persons in *Biik*	Number of *Biik*
1	1
2	0
3	6
4	7
5	5
6	8
7	14
8	9
9	4
10	2
11	4
12	2
13	2
14	0
15	1

HOUSEHOLD STRUCTURES
(BY CENSUS OF HOUSEHOLDS)

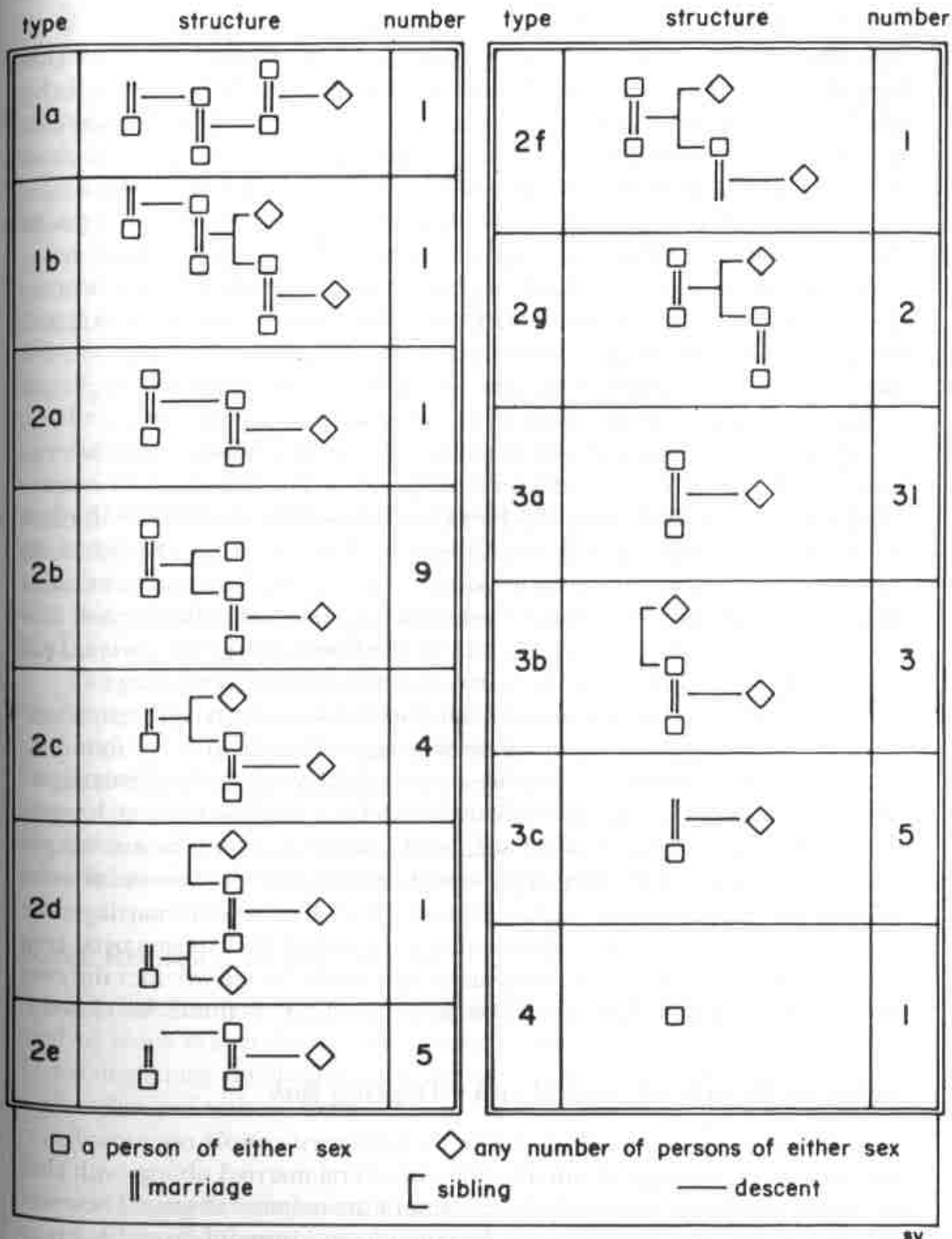

Figure 1

Relative Wealth

Relative wealth in rice land and gardens of the natal *biik* of the partners to the marriage is another consideration of great importance.

Related to relative wealth is the matter of relative political power in the village. A few descent groups within the village own large quantities of land. This land not only generates a relatively high standard of living but is the vehicle by which members of the descent group acquire and retain political power. *Biik* that are associated with such descent groups retain a greater proportion of their married children, both male and female, than other *biik*. This factor accounts for the largest proportion of virilocal marriages in the two villages. In the sample of ninety-eight marriages, thirty-one (32 percent) involved males from these descent groups, and 45 percent of these males (fourteen marriages) resided virilocally after marriage. Thus, relative wealth and political strength account for 61 percent of the twenty-three virilocal marriages in the sample. Presumably most of the remaining 39 percent (nine marriages) of virilocal marriages were the result of the necessity for *biik* continuity.

Only one married child may remain permanently to inherit his or her natal *biik*. Other children who remain in natal *biik* after marriage must eventually leave to set up their own *biik*. However, the period of residence in natal *biik* for such children is usually several years, and the parental *biik* of immediate postmarital residence continues to assist its offspring *biik* in economic and ritual matters for some years after the establishment of the offspring *biik*. The new *biik* is usually simply attached to the *biik* or longhouse of the parental *biik* from which it is separating or is constructed but a short distance away.

Thirty - eight (54 percent) of a sample of seventy marriages extracted[3] from the main sample of ninety - eight marriages eventuated in the founding of new *biik* after a period of immediate postmarital residence in the natal *biik* of one of the married pair (parentolocal residence). In these thirty-eight cases the mean period of parentolocal residence was 4.2 years and the median period was four years. The range of parentolocal residence was from six months to fourteen years. In twenty - eight (40 percent) of these seventy marriages the couples remained permanently to inherit the *biik* of their postmarital residence. In the other four cases it was as yet impossible to tell whether the couples would remain to inherit the *biik* or would establish their own *biik* close by.

Relations Between Parental and Offspring *Biik*

This period of parentolocal residence for a married couple occasionally results in *biik* comprising extended families of several married siblings with children and spouses together with the parents of the married siblings. There are no cases of such *biik* in the census, but the recent history of several *biik* provided examples. In two cases there were four married couples all with children

(a senior couple with three married children with spouses) resident at one time in a single *biik*. In every case of this kind all of the married siblings save one leave to found their own *biik* close by under the sponsorship of the parental *biik*.

The ties established during the period of parentolocal residence do not simply evaporate upon the founding of a new *biik*. On the contrary, they provide the basis for a continuing economic cooperation between parental and offspring *biik*, and they may provide an avenue for the inheritance of rights to land. Furthermore, they may result in the residential nucleus of a new longhouse or hamlet in the village. These are particularly true of ties between relatively wealthy parental *biik* and their offspring *biik*.

A newly established *biik* is unlikely to have enough agricultural land for its own support. The sponsoring parental *biik* allows its offspring continuing access to its plots of secondary forest. Often the offspring *biik* and the sponsoring *biik* will clear and cultivate contiguous swidden plots, thus allowing easier pooling of manpower in the arduous tasks of clearing and burning, planting, weeding, and harvesting. Rights to some of the secondary forest land owned by a *biik* are distributed among the offspring *biik*, if there are substantial quantities of land owned by the sponsoring *biik*. This distribution takes place by actually dividing the land among the offspring *biik* and the sponsoring parental *biik* before or immediately following the death of parents in the parental *biik*, or by retaining joint ownership in the land. The point here is that children who have resided parentolocally after marriage do not lose their rights in the land of their natal by establishing separate *biik*.

The practice of building the new *biik* close by or attached to the sponsoring *biik* results in clusters of *biik* related by sibling and parental ties. These clusters are the small longhouses and hamlets and the sections of larger longhouses and hamlets that are found scattered over the village lands. These clusters may disperse after a few years and usually do disperse in the case of poorer *biik*. However, they may grow into larger aggregations of politically powerful hamlets and longhouses as they often do in the case of wealthier *biik*.

Social Relations Within the *Biik*

A Selako *biik* family is both bound and divided by the creative tension generated by three internal structural cleavages: sex, affinality, and generation. These determine much of the internal dynamics of inter-personal relations both within and without the *biik*.

Sex

The very strong tension between the sexes among Selako is felt and exhibited in a number of different ways. Premarital sexual relations are strongly disapproved and severely punished. There is little public expression of interest or

affection between men and women (save between the aged and the very young). Men and women keep mostly to unisexual social groupings and even in those settings (such as cooperative labor groups and festivals) where men and women are thrown together, intercourse is limited. In cooperative labor parties for planting or harvest, unmarried young adults who comprise most of the work force do not laugh and joke together, but work separately and gather in groups of their own sex. They even perform sexually typed tasks in the planting of dry rice, men wielding the heavy dibble sticks and women putting seeds in the holes made by the men. During festivals and the large, public curing cermonies there is more opportunity for socializing between the sexes, but the young people tend to gather in pairs or small groups away from the older people. Even conversation between young unmarrieds is the occasion for much strained giggling.

Premarital sex is considered stealing and receives severe penalities. Pregnancy outside of marriage is heavily fined and results in public disgrace for the families of the parties even where a hastily contrived marriage is the result. The couple in such cases is brought before a tribunal of the elders in front of the whole village, and the ritual expiation of the transgression is carried out in an atmosphere heavy with hostility and absolutely conducive to bloodshed. A mock war party is, in fact, part of the ritual.

The division between the sexes is expressed symbolically and acted out in numerous ways. The architecture of the Selako house itself provides many examples. (The major division in the house is between male and female areas.) Suffice it to say that there is appreciable social distance between the sexes, and that this affects the viability of new marriages and determines to some extent the quality of interaction within the *biik*.

Affinality

Relations between affinal relatives among Selako are not easy. The potential for conflict between the in-marrying spouse and the other members of the household is so great that interaction follows rigidly prescribed rules in order to minimize areas of choice in interaction and thereby also minimize opportunities for conflict. *Datu'* ("parents-in-law") supervise the activities of *minantu* ("child-in-law") in economic and ritual activities. They address *minantu* by name or with the familiar personal pronoun, *kau*. *Minantu* avoids direct interaction with spouse's parents, at least in the early period of the marriage. He seldom directly addresses them but must employ the honorific second person plural pronoun, *kita'*, when he does. *Minantu* employs the formal kin terms for siblings in addressing spouse's elder siblings, although he would never do so for his own elder siblings. These too must be addressed with the honorific personal pronoun, although own siblings are addressed with the familiar pronoun.

Tensions between siblings-in-law are exacerbated by competitiveness of the circumtances of adult siblings only one of whom may inherit the *biik*. These circumstances in the case of siblings-in-law are unmitigated by the habits its of cooperation and ideals of familial behavior instilled in siblings reared together. Envy and jealously between siblings-in-law and the uncertainty of inheritance do much to structure interaction within *biik* that include adult siblings-in-law.

A powerful motivation to integration into the affinal *biik* is the economic interest in the production of the *biik*. This, however, is relatively weak in the beginning, as investment is low and the possibility exists of returning to one's natal *biik* without having lost a great deal by abandoning the affinal *biik*. The emotional identity of the *minantu* is in his or her natal *biik*, and the early identification with the affinal *biik* is a matter of prescription only with no emotional underpinnings except perhaps in the relationship with spouse.

If proximity allows, much of the leisure time of the recently in-marrying *minantu* is spent in his or her natal *biik*. And, if proximity does not allow, the marriage is so much the more fragile, as contacts with the anchor points of an older identity not yet fully relinquished are helpful to the acquisition of a new identity in a new *biik*. If this process of gradual transition to a new social person -- a new constellation of statuses in a new context -- comes to successful fruition, a strong bond is forged between affinally related through the ties maintained by *minantu*. This is an important part of the skein of Selako social relations.

This picture of affinal relations within the *biik* is bleak, as it should be for the initial period of marriage, but falls short of a complete picture. A successful marriage entails the merging of interests and identities of husband and wife. The birth of children encourages this as well as creating an area of congruence of interest between *minantu* and *datu'*. The prescriptive formality of relations between *minantu* and *datu'* does not change, but the effective status relationships of those remaining in the *biik* are altered by the radically changing composition of the household as spouse's siblings marry out and establish their own *biik*. The processes of age inevitably cause the role of *datu'* in *biik* and village affairs to decrease in scope as that of *minantu* increases. Since only one child remains permanently in the *biik* following marriage, after a few years the *biik* includes no married siblings of spouse. Unmarried siblings who remain will be considerably junior to *minantu* or will have little conflict of interest with the parent of their sibling's children upon whose good will his own residence in the *biik* depends. Thus, after a time of years there does flower a community of interest among affinal and natal members of the *biik*. While social distance between affinals is institutionalized, the existence and continuity of the *biik*, not to speak of the physical and economic well-being of the senior couple as they enter old age, depend upon the establishment of close bonds between affinals.

Generation and Age

Generation and age, of all personal characteristics with the possible exception of sex, are the most important in structuring interpersonal relations within the Selako *biik* and in the society at large. *Biik* ordinarily include persons of two or three generations. Junior generations defer to senior, at least symbolically. Persons are ranked by age within generations. Senior generations maintain their actual authority only so long as their greater experience and knowledge of the economic, political, and ritual realms renders the junior generation dependent. In some degree superiority in the ritual realm remains with the elders until death, knowledge of the spirit world increasing rather than waning with the onset of old age. However, as physical and mental powers decrease, actual authority in the economic and political realms is transferred to the next senior generation, and the eldest generation may, in fact, if not formally and symbolically, become dependent and, to some extent, subject to the *de facto* authority of juniors. The headship of the household (discussed above) and the guardianship of the household ritual (see below) is formally passed to the younger generation when it becomes clear that effective leadership has shifted into their hands.

These distinctions of generation and relative age are apparent in the systems of kin terminology and address. Parents are *bapa'* ("father") and *inu'* ("mother") in the system of reference; *apa'* and *indu'*, respectively in the context of address. Children never address their parents by name and employ *kita'*, the honorific second person pronoun, in address. A child is *anak* in reference and occasionally in address to a young child. Usually name only or a set of special address terms (*tadeatn*) are used in address. Parents give *kau* (the familiar second person pronoun) to their children.

Siblings and cousins may be referred to and addressed with kin terms which denote relative age. *Kaka'*, in now archaic usage, denotes an elder sibling or cousin of either sex. In modern usage *kaka'* is restricted to elder sisters or female cousins and the Malay term *abang* denotes elder brother or male cousin. *Adi'* is the term for younger sibling or cousin of either sex. These terms are used in address only among the youngest children, name only and the familiar pronoun, *kau*, being the ordinary forms of address among siblings and same generation cousins. There is some feeling, however, that younger siblings should use the more respectful *kita'* to their elder siblings, but in actual practice this occurs infrequently, if ever.

The age structuring of kin terms among siblings does reflect the allocation of authority to a limited extent. Elder siblings may legitimately direct younger, although this authority soon evaporates if it is exercised often or insistently among adults. Older siblings maintain their authority into the physical maturity of the younger, more through superior knowledge and experience than through age status. The superior knowledge of elder male siblings is particularly relevant with respect to control over dry rice land, and in this

area the authority has been institutionalized in the custom law.

Parent's siblings may also be present in the *biik*, most probably while children are young. Parent's siblings are differentiated in the systems of address and reference by birth order relative to the articulating parent born into the *biik* and by sex. Elder sisters of parent are *ma' tuha* or *ma' uha;* younger sisters are *ma' uda. Uha* is an occasionally used term for elder siblings of parent. These terms are seldom used for real siblings or first cousins of parent. Instead, for these categories of relative, special terms are employed which denote personal characteristics of the named relative such as physical features or birth order in the sibling set, as well as status as parent's sibling. These special terms are formed by conjoining a descriptive element to the kin terms, *pa'* and *ma'*, just as *tuha* and *uda'* are affixed to form the more general kin terms for this group of relatives. Examples of these special terms are *pa' usu* (form *kabunsuatn*, "youngest of his sibling set") and *pa' indek* ("short uncle"). Similar terms are employed for female siblings of parent in conjunction with *ma'*. These terms are also taken up by the following generations with a simple change in the preceding kin morpheme. Thus, one individual is known as *pa' usu* to his siblings' and first cousins' children and *ne' usu* to their children. (*Ne'* is a contraction of *nene'*, the term of grandparent). *Kita'*, of course, is given to all these senior individuals and *kau* is received in return.

To some extent parent's siblings have the same kind of authority over nieces and nephews as have their real parents, most especially if they live in the same *biik* and thus are part of the same commensal and work unit. Nieces and nephews are referred to as *kamanakatn.* Usually children of real siblings are referred to as *anak kamanakatn.* These, of course, are the *kamanakatn* most likely to be present in the same *biik. Dakan* is the address form for *kamanakatn*, although name only is the most likely form of address.

Sibling Sets

Sibling sets are large with often as much as twenty years or more age gap between oldest and youngest siblings. This accounts, to some extent, for the partial equation of elder siblings with parents in the exercise of authority. A ten-year - old child may be resident in a household where his eldest sibling at age thirty is head of the *biik* (*Tuha Biik*), and his parents at age fifty-five or sixty operate effectively only in the ritual and political domains.

There is data available sufficient to attempt a simple statistical analysis of the structure of sibling sets, but these data must be approached with great caution. The sample of fifty - one sibling sets is neither randomly drawn nor rationally constructed by any criteria of stratification.[5] The arithmetic mean size of the sibling sets in the sample is 5.4 persons. The median and mode are 5. The range of size of sibling sets in the sample is indicated in Table 2.

A further subsample of twenty-four sibling sets, all included in the larger

sample of fifty - one, provides sufficient data to approximate the age structure of the sibling set. The arithmetic mean size of this subsample is six persons; the median and the mode are five persons.

TABLE 2. Range of Size of Fifty-One Complete Sibling Sets from Kampong Pueh

Number of Persons in Sibling Sets	Number of Sibling sets
2	3
3	4
4	11
5	14
6	4
7	6
8	6
9	3

TABLE 3. Age Differential Between Oldest and Youngest Siblings in Twenty-Four Complete Sibling Sets From Kampong Pueh

Age Differential in Years	Number of Sibling Sets
4	1
5	1
6	1
7	0
8	1
9	3
10	0
11	0
12	0
13	0
14	2
15	3
16	1
17	1
18	1
19	2
20	1
21	1
22	2
23	1
24	1
25	1

The arithmetic mean difference between oldest and youngest siblings is 15.4 years in the subsample of twenty - four sibling sets. The median difference is 15.5 years. The two modes are 15 and 9 years. The range of age differential between oldest and youngest siblings is set out in Table 3.

The size and age distribution of sibling sets in any society have important structural consequences both within and without the household. The importance of relative age in structuring relations among siblings in Selako society becomes intelligible in the light of the data on the size and age distribution of sibling sets. There are obvious differences in the capabilities and contributions of siblings separated by fifteen or more years in age. Selako have simply institutionalized these age differentials into permanent status differentials that continue to have relevance even into the adulthood of the youngest of a sibling set.

The consideration of older siblings as junior parents makes sense if one realizes the age differential between oldest and youngest child is sometimes as great as that between parent and oldest child. There is, however, the ameliorative effect among siblings of a mean age differential of only 2.5 years between adjacent siblings who can serve as linked bridges through the sibling set, and thereby reduce the effect of the age differential between oldest and youngest.

The *Biik* as Corporate Descent Group

Thus far the *biik* has been presented only as a household, a group of individuals living together. In Selako eyes, however, the *biik* comprises far more than just its living members. The household is only the representation at one point in time of a corporate descent group, a social entity that endures over time to provide reference points to society, much as an ironwood housepost is used for centuries as the *biik* house is built and rebuilt.

Property and Soul

The identity of the *biik* as corporate descent group becomes clear in the handling of certain property rights. Land, rice, and rice - associated ritual and paraphernalia are the property of the *biik*. While rights in land pass easily out of the *biik* to others (most particularly to offspring *biik* as discussed above), rights in *biik* ritual (*rukun*) and special strains of rice remain with the *biik* throughout its existence over generations (although they may be shared out to furnish offspring *biik*). Moreover, certain indivisible items such as the rice jar (*kabarasatn*) and rice scoop (*aling*) remain permanently in one *biik*. In a very real sense these elements constitute the *biik* as descent group and have a personality and soul (*samangat*) apart from that of the individual persons who are the residents and guardians of the *biik*. It even happens at times that the *biik* is put on a par with high village officers or ritual officiants by receiving the

hindlegs (*babuk*) of a domestic pig sacrificed at a festival.

There is a sense in which the spirit of the *biik* can be said to inhere in the physical structure of the *biik* house. The house is understood as having physical and spiritual continuity over time, even though it be torn down and reconstructed any number of times at different sites, even in different villages. The main houseposts particularly are likely to be used and reused through many generations, cut as they are from particularly durable species of very hard wood (*bilian*). Several of the houses in the villages studied incorporate main posts which were cut over a century ago. Within the house the spirit of the *biik* is explicitly associated with two particular posts.

Reference to such and such a *biik* as the *biik* of X, an individual dead fifty or seventy-five years, is another demonstration of the conception of the *biik* as descent group and as social entity beyond the individual members of the household. *Biik* maintain their identity in Selako minds over many generations. Thus the elders in the villages studied can identify which *biik* presently existing in these villages are original *biik* established when the area was first settled by Selako a century ago (although they have been torn down and reconstructed many times at different sites). In one case this involves two *biik* occupying a single *biik* house through an amalgamation that occurred before the turn of this century. (Amalgamation is further discussed below).

Mechanisms for Perpetuation of *Biik* Threatened with Extinction

Once a *biik* comes into existence it should not be allowed to die out. Selako resort to a number of mechanisms to prevent the extinction of a *biik*; adoption, amalgamation (fusion of two *biik*), and a special kind of temporary amalgamation or quasi-amalgamation are all employed to perpetuate *biik* under the threat of extinction.

True adoption, incorporation of an individual into a *biik* into which he/she does not marry and was not born, with the same rights and duties as a natal member while he/she at the same time discards all rights and duties in a natal *biik*, is rare. Two cases were recorded in the census in which the only child of a woman who died in childbirth was taken in by the woman's sibling. This is true adoption, but these two cases were to provide for the needs of the children involved rather than in order to perpetuate a *biik*. Another case was recorded wherein a Chinese child was adopted by a couple childless after ten years of marriage and parentolocal residence. This may be assumed to be an effort to perpetuate the *biik* as there were no siblings of the childless woman available to carry on the *biik*.

Amalgamation of *biik* may occur where all of a couple's children have left, none remaining to perpetuate the *biik*. Presumably this occurs only by accident or through miscalculation. It might be expected that occasionally a family quarrel would leave a *biik* with no heirs. Sudden deaths might have the

same effect. Where a *biik* is left with no child with spouse or the prospect of spouse, an aged couple may join forces with a *biik* into which one of their children has married, physically moving into the *biik* house of the other *biik* and pooling assets. This amounts to a permanent fusion of the two *biik* so that the junior couple in the *biik* is seen as perpetuating two *biik*, both of their natal *biik*. Henceforth the heirs of this *biik* are conceived as representing both *biik*. Selako do, however, say in cases of this kind that the *biik* which averts extinction in this fashion is borrowing or bumming a ride from the other *biik* (*numpang*).

A kind of quasi-amalgamation of *biik* sometimes occurs as a result of the death while there are only minor children, of the partner in the marriage who articulates the *biik* to its ancestry, and the subsequent remarriage of the widowed spouse. In every *biik*, in every generation, there is one individual who articulates the generations to preceding and succeeding generations. (For limited periods, during their minority and often for a few years after marriage, it may be impossible to determine which of several siblings is that one individual.) This is the person with whose parents parentolocal residence is taken up following marriage, the individual whose natal *biik* provides the couple access to the minimal items of corporeal and incorporeal property necessary to a *biik*.

Where this individual dies after the birth of children and his/her spouse subsequently remarries with an individual who, for whatever reason, is also obligated to perpetuate a *biik*, then what might appropriately be called a temporary amalgamation of the two *biik* occurs. The *Biik* Rabu provides a fascinating example of this process occurring twice in consecutive generations.

Ano was a young Iban who came to the area with a group of comrades to hunt for forest produce around the turn of the century. Ano broke his leg, and his friends left him to convalesce. Ano met and married Rabu, but after several years of marriage Rabu died in giving birth to a first child, Ngomong, a son. Ano then married another local girl, Nyundam, by whom he had two more children, Tengkeh and Jaelan. After several years of uxorilocal residence in Nyundam's natal *biik*, Ano and Nyundam built their own *biik* house and set up their own household and *biik*. At the same time or shortly thereafter Ano built a second *biik* house for the *biik* of Rabu. Thus Ano was involved in two *biik* simultaneously. When Ngomong, the son of Rabu and Ano, married Jaenun in the early thirties, he took over and carried on the *Biik* Rabu, Jaenun and Ngomong residing virilocally in the *Biik* of his mother. Ano relinquished his role in the *Biik* Rabu at this time although presumably continuing some interest in the affairs of the assisting his son whose house was close to his own.

Ngomong and Jaenun had three girl children before Ngomong's death in the mid-forties. In 1949 Jaenun married Masir whose own wife, Dalok, had died in 1946. Masir and Dalok had resided uxorilocally before constructing

their own *biik* house and establishing their own household and *biik* in 1940. Masir and Dalok had two boys.

Thus, when Masir and Jaenun married in 1949 each was involved through their children in maintaining the *biik* of a dead spouse. Jaenun and her girls left the house where they had lived with Ngomong to move in with Masir. Masir built another *biik* house attached to his own with no intervening wall. This was to house the *biik* of Ngomong (Rabu). The members of the two *biik*, however, lived in one household, one commensal and work unit. This state of affairs continued for three years until Jita, the eldest daughter of Ngomong and Jaenun, married Milos. Milos and Jita then took over the *biik* of Ngomong and Rabu. Sometime thereafter the intervening wall between the two *biik* was built. Jaenun now lives with her husband, Masir, in the *biik* of Dalok, his first wife.

Another of Ano's children is involved in a case which further illustrates the status of the *biik* as descent group. Tengkeh, married Rindai, daughter of Balon and Pato. Immediately following marriage Tengkeh, Rindai, and Pato, Rindai's aged, widowed mother, set up housekeeping at Jangut where Ano and Ngomong lived, Tengkeh building a separate *biik* house attached to Ano's. Tengkeh and Rindai followed the *rukun* of Pato rather than that of Tengkeh's mother, Nyundam.

It is very clear that the motivating force for all of these rather peculiar (in Selako terms) housing arrangements is the desire and need to perpetuate existing *biik*. Ano, Jaenun, and Masir were all affinally residing spouses in their initial marriages. They thus participated in establishing *biik* under the sponsorship of dead spouse's natal *biik*. The death of spouse in these circumstances, leaving children, obligated them to maintain a *biik* house to house the *biik* established with dead spouse. Their subsequent second marriages did not relieve them of this responsibility. Thus, whatever the actual household arrangements involved, all three were obliged to participate in the perpetuation of two *biik*, those of dead wife and new wife in the case of Ano, those of dead spouse and spouse's dead spouse in the cases of Masir and Jaenun. This obligation remained until their children by dead spouse married and were able to relieve them of the *biik* of dead spouse. It is worthy of note that Masir and Jaenun now live in the *biik* established by Masir and Dalok with Milim, the only child of Masir and Jaenun together, their children by their other spouses having all married out. Thus, it seems that Milim, who is only affinally related to Dalok from whom the *rukun* and other property of the *biik* of Masir and Dalok issue, wil perpetuate that *biik*. The equivalence of consanguineal and affinal connection for purposes of transmittal of *biik* between generations is discussed below.

The case of Pato, Tengkeh, and Rindai demonstrates the principle of *biik* continuity operating under different adverse circumstances. Marriage residence ordinarily supports *biik* continuity. Indeed one might say that *biik* conti-

nuity is rooted in parentolocal marriage residence since it is this pattern which creates the succession of households that is the expression of as descent group. But in the case of Tengkeh, we find a man presented with the prospect of allying himself and moving in with a poor, weak *biik* whose membership consists of only an aged woman and her daughter. Tengkeh elected instead to build a separate *biik* house onto that of his father, thus receiving most of the economic and political assistance (not to speak of social support) that he might have received had he resided virilocally actually **in** his natal *biik*. In this case then the principle of *biik* continuity prevails even over the very strong countervailing influence of postmarital residence. Tengkeh technically resided uxorilocally through the simple device of reconstructing his mother-in-law's *biik* house right next door to his father's, his own natal *biik*. His actions were a way around the difficulties imposed by the necessity to carry on the *biik* of Pato, but they were clearly not a disavowal of his obligations to Pato.

The possibility of *biik* extinction does exist, however rarely it might occur. One case with the names of the actual participants changed, will serve to illustrate how this might occur.

Robert, his brother James, and his sister Shirley, together with Shirley's husband William, lived in the *biik* of their dead father, Alexander. Robert, the eldest, quarreled with the others, and within a year of their marriage Shirley and William moved out of the house, taking with them brother James and leaving Robert alone in their natal *biik*. William, Shirley, and James first moved in with William's natal *biik;* then built their own *biik* house next and attached to the *biik* house of William's parents. There are two interpretations of this state of affairs advanced by other people. Some say that Shirley and William are in their own newly established *biik*, under the sponsorship of the natal *biik* of William, even though James, Shirley's brother, is resident in the same *biik*. This interpretation would have it that Robert, living alone, is heir to his natal *biik* which will disappear upon his death unless there is a reconciliation with James who could move back in and marry. (Robert is a bachelor of over forty and unlikely to marry.) The other interpretation, favored by the elders of the village, is that Shirley and William have inherited the *biik* of Alexander, Shirley's and James' natal *biik* even though the corporeal property, including the *biik* house itself, remains with Robert.

Matrilineal Descent

It should have become apparent in the foregoing illustrative cases that *biik* are usually passed on from mother to daughter, just as postmarital residence is normally uxorilocal. In fact, the predominance of uxorilocal residence is closely intertwined with the matrilineal bias in the *biik* as descent group. *Biik* are not simply ambilineal descent groups with a matrilineal bias and frequent patrilineal exceptions. They are, rather, groups held together by a core of

women in which inheres a property interest in rice and associated *impedimenta*. This property interest is in the women, never the men, but may be passed from husband's mother to son's wife, as well as from mother to daughter. It may be that the term "descent group" is not entirely appropriate in such a case, but considering the confusion inevitably caused by the coining of new terms, and the arguments which can be made for assimilating the daughter-in-law to daughter in cases of virilocal marriage residence (see below), this usage is justifiable.

Rice belongs to women. Only women should handle the rice once it has been husked before it has been cooked. Men are not permitted to even remove the husked rice from the storage jars, although they may do the actual cooking of the rice in the pot (presumably after it has been placed in the pot by a female). Men perform the rituals, say the chants, address the prayers, but the minimally sufficient elements of all offerings (at least offerings in the house) and thus all prayers are the *bonto'ng*, small leaf-wrapped packages of steamed rice which are folded by the women in ways distinctive according to *rukun*. Only women pound the husked rice into rice flour. Only women cut the new rice the first three days of the harvest (when only a ritual few heads are cut, sufficient to prepare *bonto'ng*, rice cakes, and confections). Only women prepare the offerings of rice for presentation at the *pabuisatn* (a special altar in a clearing close to the main longhouse) twice a year. It is rice and things associated with rice that are the ideological as well as subsistence core of the *biik* and these are women's things, passed from woman to woman through the generations, usually from mother to daughter but quite frequently from husband's mother to son's wife.

Selako do not always speak in these terms themselves. Oftentimes they speak of the *Biik* Ngomong, for instance, or the *Biik* Mina, the *biik* identified by its male head of household. But in these cases they have in mind that it is a male who heads, has chief authority in, the **household**. They are fully aware that the *biik* is peculiarly the *biik* of the individual who articulates the household to the previous generation, the child who brought home a spouse to permanently reside in the natal *biik*. Difficulty arises in speaking of the *biik* as passing from husband's mother to son's wife, particularly when common usage so often is that the *biik* passes from male head of household to male head of household. But rice, in the restricted and enlarged sense explained above, is controlled by women and thus must pass from woman to woman. The *biik* therefore so passes.

There is a sense in which marriage can be conceived as an adoption of the *minantu* by his/her spouse's parent. Spouses are assimilated to each others' kin statuses. A spouse's older brother is addressed and referred to as "older brother". All terms of reference to the kindred of spouse living outside spouse's household are the same as those employed by spouse (except for siblings as noted above). Often elaborate ritual procedures are employed to en-

able spouses to use the same kin terms in reference and address to persons who are related to both but in different ways to each. The unity of spouses is made apparent in the distribution of ritual shares of meat at a festival where either party to a marriage suffices to receive the share, rights to which derive from the consanguineal kin connections of the one. The *biik* is a unit which submerges the identity of all of its members and, most importantly, equates internal affinal connections with consanguineal connections, at least in interactions with outsiders. It is the *biik* undifferentiated that performs rituals, makes offerings. Individuals do not. The equal status of all in the *biik* is clear in the rituals when all touch the sacrifice, when all receive the daub of sacred powder on the forehead. Conceived in this light there is no difficulty in speaking of the *biik* as being passed from generation to generation by women whether related by consanguinity or marriage.

Be that as it may, it is still enlightening to examine the actual biological links employed in the perpetuation of the *biik* through the generations. Statistically speaking, in biological rather than social terms, the *biik* is an ambilineal descent group with a matrilineal bias. Of eighty - three recorded cases of transferral of *biik* headship to living persons at Kampong Pueh (the sample here includes, but is slightly larger than the sample in the census of households), fifty - two (62 percent) involved transfer to a daughter and her husband and thirty - one (38 percent) transfer to a son and his wife. Transferral of the headship of the *biik* usually is not performed until the older couple in the *biik* is approaching sixty years of age. Thus the inheritance of many *biik* covered in the census of households is as yet indeterminate although there may in fact be three generations resident in many of them.

Some few data are available on the inheritance of a *biik* over a time span of a century. Twelve of the original sixteen *biik* that settled the area in 1875 are still resident there. The links of parent and child which have perpetuated these *biik* biologically have been reconstructed. In one case it is possible to take the linkages back six generations (including one generation in *Kalimantan*). In all of the other cases the *biik* is only four generations deep.

In these twelve *biik* there are thirty - eight tranfers of *biik* headship, inheritances of *biik*. Twenty - eight of these (74 percent) are to a daughter and her husband; nine (26 pecent) are to a son and his wife. In four of the twelve *biik* (including one six generations old), inheritance has been only by daughters and their spouses. There are no sons in these chains of inheritance. In none of the twelve *biik* is there an instance of an unbroken line of sons and spouses inheriting. Table 4 summarizes the data on sex of the links articulating inheritance of the twelve *biik*.

Finally, the sum of all recorded transfers of *biik* headship, in the two villages studied, those involving both living persons and the dead, is 109. Of these 109 successions, seventy - one (65 percent) are to daughters and their husbands, and thirty - eight (35 percent) are to sons and their wives.

TABLE 4. Mix of Male and Female Links of Biological Descent in Twelve *Biik* over a Century

1 female and 2 males	2
2 females and 1 male	5
3 females and 1 male	1
3 females	3
5 females	1

Summation

The *biik* as a corporate group persisting over the generations must be considered from three different perspectives if its relation to common anthropological concepts such as the descent group, matrilineage, and ambilineage is to be at all plain. In an etic sense the *biik* is an ambilineage with a statistical preponderance of female links connecting back to the apical couple. It is restricted in membership in that only one child with children permanently remains a member in each generation. It is enlarged in membership through the incorporation of the spouse of that child, and thus is, strictly speaking, not entirely a descent group. The selection of the child who remains in the *biik* with spouse and children and perpetuates the *biik* is according to certain partially ordered rules that overlap with those determining postmarital residence: if there is only one child available, that child remains regardless of other factors; the child and spouse who show most promise to be able to care for the senior couple in their old age with minimal difficulty are preferred; the child who marries first and thus first establishes residence with spouse and children is preferred; if the family is politically active and/or has wealth in secondary forest and gardens, an older male child is preferred; other things being equal, a female is preferred.

The Selako model of the *biik* is not clear - cut. Selako say people should marry uxorilocally. They are inclined to minimize the occurence of virilocal marriage, although the most prominent among them partake in it. They conceive of the *biik* as a descent group, but do not really trouble themselves about such concepts as matrilineality or patrilineality.

Only if we discard the straitjacket of biological descent can we arrive at what is probably the most satisfactory model for understanding the *biik* as part of the Selako social system. Kinship is, after all is said and done, a matter of ideology and not biology (or not **only** biology). If we ignore the distinction between recruitment to the *biik* by birth and recruitment by marriage, then it can be said that the *biik* passes each generation to one woman who guards the rice, household ritual, and associated paraphernalia. She is the core of the *biik*, and the membership of all others is derivative.

Notes

1. The research on which this paper is based was carried out under the sponsorship of the University of North Carolina at Chapel Hill and the Sarawak Museum during eighteen months residence among the Selako (between October 1969 and July 1971). Funding was provided by the National Science Foundation.
2. There are a number of problems involved in defining precisely what is a "Selako Dayak" and what are the linguistic and cultural relations between the Selako and other Dayak (or Malay) groups. Hudson (1970) examines this from a linguistic perspective. Suffice it to say that while Hudson finds very close linguistic connections with other Dayak groups, particularly in West Kalimantan, he does not find any similarly close linkage with the other Land Dayak groups such as Jagoi and Sadong with whom the government has traditionally lumped the Selako for census and other administrative purposes. Hudson does group the Selako with the so-called "Sea Dayak" or Iban groups of Sarawak and West Kalimantan on the basis of obvious and very close linguistic affinities, but the differences from the Iban groups are sufficient to clearly distinguish Selako from Iban.
3. This sample was constructed from the main sample of ninety-eight marriages by excluding all marriages which ended where there were no children (if there were children the postmarital residence could continue after death), all second marriages where the first marriage ended by the death of one party and there were children by the first marriage, and all marriages to Chinese (who are prone to switch to virilocal or neolocal residence as soon as possible).
4. Unmarried females over thirty are extremely rare among Selako, there being only one in the census of sixty - five households and, according to informants, only two among all the Selako in Sarawak. There were six unmarried males over thirty in the sixty – give households covered in the census.
5. Fifty-one complete sibling sets born of women now over age forty-five or dead were culled from field notes. Of these seventeen were constructed almost entirely from genealogical materials and are thus suspect in their completeness. On the other hand, large sibling sets may be over-represented in the sibling sets drawn from genealogies as they may be much more likely to be remembered. The criterion for selection here was completeness and not size, but extremely small sibling sets (of one or two persons) from several generations in the past were presumed to be incomplete and thus not included in the sample.

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RELIGION AND FESTIVALS IN A MULTICULTURAL BAZAAR TOWN

RICHARD C. FIDLER
Northern Arizona University

The most dramatic and influential development in the recent history of the Third World countries has been the decline of colonialism and the rise of national independence during the two decades following the Second World War. The Republic of the Philippines was established in 1946; India and Pakistan achieved independence in 1947; the Union of Burma and the Republic of Indonesia followed in 1948. Throughout the 1950s and early 1960s other independent nations arose in South America, Africa, Asia, and the Pacific. On August 31, 1957, the nine states and two crown colonies of the Malay Peninsula formed the Federation of Malaya; on August 31, 1963, the crown colony of Sarawak, the former British-protected raj of the Brooke family became a self - governing state, and two weeks later, on September 16th, joined with the Federation of Malaysia.

Among the legacies of the colonial era was the multicultural or "plural" society, defined by Kuper (1969: 3) as "...societies with sharp cleavages between different population groups brought together within the same political unit." Some of these plural societies resulted from the colonial practice of drawing political boundaries with regard for the contemporary necessities of the European political situation, rather than to conform to the culture areas inhabited by differing ethnic groups; Nigeria is a prime example of the political union of many culturally differing peoples. Other plural societies were the result of economic motivations the encouragement or direct support by the colonial government of the immigration of foreign workers into the colonial state. The tacit understanding that these immigrants eventually were to return to the nation of their birth was never realized; their descendants continue to live among the indigenous populations of their adopted countries. In some of the new nations, the non-indigenous populations remain small - - between 2 and 4 percent in the Philippines, Thailand, and Indonesia, for example; in these countries assimilation of these nonindigenous groups is proceeding with varying results. The Federation of Malaysia and its states on the island of Borneo illustrate a more extreme problem: the immigrant peoples and their de-

scendants now outnumber the indigenous ethnic groups. In Sarawak, no one ethnic group has sufficient numbers of people to culturally dominate the society; the largest group, the Iban tribe, included (1960) only 31.9 percent of the state's population. In Sarawak, everyone is a member of a minority group. These people are undergoing culture change, but rather than assimilating to an already - existing dominant culture, they are contributing to the development of a plural society.

The academic study of plural societies in the political, behavioral, and social sciences parallels the rise of national independence among Third World nations. J.S. Furnivall's pioneering work, *Netherlands India - - A Study in Plural Economy* (1944), introduced the term as a subject of study, and in *Colonial Policy and Practises* (1948). Furnivall further refined this topic with a historical and contemporary comparison of the colonies of the Netherlands Indies and British India. Other early essays on the subject, such as J. Clyde Mitchell's "Tribalism and the Plural Society" (1960) and M.G. Smith's "Social and Cultural Pluralism" (1965) show nearly as much concern for the semantics of their definitions as for the structure and content of these plural systems. Since the publication of Kuper and Smith's *Pluralism in Africa* in 1969, the study of plural societies has been dominated by two opposing models, the "conflict model" and the "equilibrium model".

The conflict model, supported by Smith, Kuper, and Van den Berghe, states that nonhomogeneous societies, lacking a common set of social values and goal, are highly unstable, and can be held together only by force. Such force is usually applied by one of the constituent subgroups upon the members of all the other subgroups. As Smith states it (1965: 86): "Given the fundamental differences of belief, value, and organization that connote pluralism, the monopoly of power by one cultural section is the essential precondition for the maintenance of the total society in its current form." The conflict model does not describe the pluralism of Sarawak, for in that state no one ethnic group or *bangsa* (race) has sufficient power or numbers to control the entire system. Neither does the alternative theory, the equilibrium model, as described by Kornhauser (1960) and Shils (1956) satisfactorily explain the Sarawak situation. Their model tends to equate pluralism with democracy, and vice versa. Liberty and democracy tend to be strong where social pluralism is strong, and conversely, they are seen to be vital prerequisites for a plural society.

Sarawak has the mixture of racial and ethnic groups described in the conflict model; it does not have a dominant ethnic group regulating the total society by force. Sarawak has the balance of systems and spheres, the overlapping plurality of structures as described in the equilibrium model; it is not a paragon of liberalism and democracy. Sarawak is neither the despotic armed camp nor the idealized social democracy that these models would make of it. The state survives on a balance of powers, a balance of tensions, and a balance of

individual and ethnic-group desires with the necessities of communal existence.

For an understanding of the structure of the plural society in Sarawak, it is much more enlightening and constructive to look to the concepts presented in 1956 by Fredrik Barth in his article, "Ecologic Relationships of Ethnic Groups in Swat, North Pakistan". While this essay is concerned with the relationships of Pathans, Kohistanis, and Gujars with their environment and with each other, it presents many parallels to the Sarawak situation, and many useful ideas for the study of such systems. The concept of a niche -- the place of a group of people in the total environment and its relations to its resources and competitors -- is especially applicable, for as Barth states (1956:1088): "Different ethnic groups will establish themselves in stable co-residence in an area if they exploit different ecologic niches, and especially if they can thus establish symbiotic economic relationships, as those between Pathans and Gujars in Swat."

It is too early to propose a model, theorem, or complete analysis of the structure of the plural society in Sarawak; at best a working hypothesis, influenced by Barth's concept of niches, can be used to order the limited amounts of data currently available and to guide the investigator in his research and study of this theoretical problem. This article presents a description of the ways in which three ethnic groups in one small market town in Sarawak "establish themselves in stable co-residence "with regard to their differing religious beliefs by exploiting different aspects of that niche. Stable co-residence in the religious sphere is not sufficient for the development of a plural society, nor does it alone provide sufficient data for the formulation of a general model of behavior; it does provide an interesting case study, however; for while one of the basic and fundamental elements of any cultural heritage is its religious beliefs, one of the basic and fundamental requirements for any successful multicultural community is its tolerance for the religious differences of its members.

Kanowit is a bazaar, a market town, on the central Rejang River in Sarawak's Third Division. The population of Kanowit Bazaar in 1970-71 was 1,720. Residents of Chinese descent form the largest unit of the population, 72.7 percent. They are divided among seven different dialect groups, all originating in the South China provinces of Kwangtung and Fukien. The most populous of the seven is the Hokkien (35.5 percent of the town's population), followed by the Cantonese (15.5 percent) and the Foochow (14.6 percent). In addition to the Chinese residents, the population of Kanowit Bazaar includes Malays (18.1 percent), Iban natives (6.5 percent) and individuals representing a variety of Sarawak and European ethnic groups.

Kanowit Bazaar is a multiracial and multicultural community. While its population has more Chinese than any other race, the dialect subgroups do not often act in unison, and consequently, no one ethnic group dominates

the town. At the same time, Chinese culture does not dominate either, as the experience of the Chinese in Sarawak has led them to adopt many non-Chinese customs, while the non-Chinese members of the community continue to practice many of their own traditional cultural patterns. Over both of these segments of the community, and affecting both equally, was laid the government of the Brooke raj and, later, the colonial civil service, bringing Western culture and Western education to the diverse peoples of the community.

Religion is always a highly personal matter; in Kanowit Bazaar it is also a highly individualistic one. The citizens of Kanowit may all have ideas and opinions on the subjects of economics, race, politics, morals, values, and ideology, but they do not force them upon others; they may all have ideas and opinions on religion, philosophy, and belief systems, but they are neither dogmatic nor evangelistic. This is especially true among the Chinese of Kanowit. Chinese religion has always been more eclectic, more open to modification, and less rigidly dogmatic than the major religions of the West.

Likewise, the Chinese, at least as seen through their literature and philosophy, do not view the universe as a spiritual bureaucarcy, initially created, then organized and operated, by a Supreme Being, but as "a harmoniously functioning organism consisting of an orderly hierarchy of interrelated parts and forces, which, though unequal in their status, are all equally essential for the total process" (Bodde 1953: 67). One of these parts is the individual; he interrelates with his universe through a hierarchy, and that hierarchy is the family. The individual exists as a member of his family; the family exists as an aggregate of individuals. The individual and the family, in "traditional China", are but two separate aspects of the same social entity. This entity is not limited to the present, to the living; it has roots in the past, in the members of the family without whom the present individual, or the present collective aggregate, would not exist, in the ancestors. Whatever the trimmings of rite or philosophy that history has added to Chinese religious belief, this harmony of individual/family/universe, individual/family/ancestors, has remained at the core of Chinese thought.

The Chinese of Kanowit Bazaar in the 1970s are certainly not living embodiments of Chinese spiritual philosophy, but the desire for harmony remains. Like all Chinese, those in Kanowit do not "worship" their ancestors; most recognize the traditional rites and rituals honoring their forebears as simply that - - symbolic gestures - - of the harmony, the interrelationships of the organism, the linking of the individual with his universe. Perhaps this desire for harmony is a reason why the Chinese of Kanowit are so tolerant of differing religious beliefs among the various races of the community, and tolerant, too, of the wide variation of belief within the family itself; as long as the harmony of the total is not endangered, the true ideology of the particular is of no special consequence.

The Chinese of Kanowit Bazaar are not very well informed about the de-

tails of their own traditional practices. Even though many individuals are able to go through the motions correctly, only a few are able to explain what they are really doing and why. Within any particular group of Chinese worshipers, therefore, no two individual participants may actually have the same set of beliefs. Any publicly performed Chinese religious ritual or ceremony in Kanowit Bazaar will have far more curious spectators than devout and informed practitioners, and the majority of these observers will have only an elementary knowledge of what is going on.

In contrast to communities with unified and organized religious institutions and establishments, there appears to be very little religious activity in Kanowit Bazaar. The appearance is highly misleading, however; because of their independence and individualism in religion the people of Kanowit give only casual attention to the **forms** of worship, and place all importance on the **feelings**. This article will discuss some of these forms, these cultural artifacts, and how they operate on a phenomenological level in a multicultural atmosphere; it will describe some of the rituals and ceremonies, the behavior and the actions, what is known about them and what people say about them. It does not attempt to determine what people actually **believe** or **feel**.

THE RELIGIONS OF KANOWIT BAZAAR

The government of the Federation of Malaysia, recognizing the difficulties of building a just and democratic multi-ethnic society, has summarized the basic aims and attitudes it desires for the nation in a five-point statement of national principles, called the *Rukunegara*. The first of these principles concerns religion:

> Belief in God (*Kepercayaan kepada Tuhan*)
>
> Islam is the official religion of the Federation. Other religions and beliefs may be practised in peace and harmony and there shall be no discrimination against any citizen on the ground of religion.

In Kanowit, this principle is carried out in spirit as well as in law. Western missionaries have been permitted, and usually encouraged, to work in Sarawak since the earliest days of the Brooke raj. While they are free to convert the residents to their faith, they have never used their powers of land, education, or social services to force or require any large-scale conversions. The majority of the native peoples in Sarawak retain their traditional animistic folk religions, and they are permitted to do so without any interference. The Chinese, too, are free to worship as they choose, and to build temples for their ceremonies as they desire. Kanowit does not have any Chinese temples, but many communities of Chinese elsewhere in Sarawak have built them, and the

large city temples of Kuching and Sibu are elaborate and active in their religious rites. Permits are routinely granted to the temples and religious associations for parades, public ceremonies, and open - air religious and cultural activities.

A census of religion in Sarawak or Kanowit Bazaar is very difficult to obtain, and any results are of highly questionable reliability. The intensely personal nature of religion is one cause for this vagueness; the necessity to create categories of religious belief, and offer them to informants in a multiple-choice format, as the censuses are conducted, further complicates the issue. The strong associations of religion with ethnic groups create a third difficulty. Using a simple tripartite classification, the 1960 census of Sarawak found that the 744,529 inhabitants of the state were divided among 15.8 percent Christians, 23.4 percent Moslems, and 60.8 percent "Other Religions". In his report on the 1960 Census, Jones (1962 : 96) summarized the data on religion as follows:

> A fairly clear picture of the religious composition of the population is then presented. The Muslims are the people of the coastal areas; they comprise nearly one - quarter of the population and it seems that their numbers are growing only in accordance with natural increase. The Christians are to be found in the neighborhood of the Christian missions which are widely scattered throughout the country; their number is about one-seventh of the populations and is growing rapidly. Nearly half of the Christians are Chinese and rather more than half are indigenous peoples. About three-quarters of the Chinese adhere to the Chinese religion; and the remainder of the country's population hold the pagan beliefs of the indigenous peoples. The proportion of pagans in the indigenous population is declining and will probably continue to decline under the positive influence of Christianity and the less positive but still effective influence of Islam. It remains perhaps to add that all the peoples of whatever creed live side by side in amity and with no trace of religious intolerance.

There is no similar census of religion for Kanowit Bazaar from the 1970 Census. The standard Personal Data Forms were replaced in Kanowit District by an abbreviated form which did not ask for the religious affiliation of the informant. By combining the patterns of the 1960 Census with data from informants in the bazaar, however, it is possible to make the following estimates of religious affiliation in Kanowit Bazaar in 1970 – 71:

Christians: about 360 people, about 21 percent of the town population.

The priests of the Roman Catholic mission estimate that there are about 200 Chinese Catholics living in the bazaar. It can be assumed that most of the 64 people living in the mission compound, and a few of the Ibans in the government quarters, are Catholic. In addition, there are some Methodists, especially among the Foochow Chinese, and a few other Christian Chinese of various denominations.

Moslems: about 325 people, about 19 percent of the population. The 312 Malays are all classified as Moslems, the other 13 being Melanaus, Land Dayaks, and a few Ibans living in the *kampongs*, the Malay sections of the town.

Other religions: about 1,035 people, about 60 percent of the total population. They are mainly Chinese, but also include Ibans who are not Christian, the members of other native groups in the bazaar, and the handful of Sikh Indians resident in the community.

Christians

While the Roman Catholic mission and its staff are most familiar to, and have the greatest contact with, the people of Kanowit Bazaar as a whole through its social services, these services are (or were originally intended to be) secondary to the religious activities of the church.

The church conducts mass three times every Sunday morning. The first service is in English and the second in Mandarin Chinese. The last mass, at 9:30 a.m., is conducted in Iban: that is, the hymns, prayers, and sermon are in the Iban language. A vesper service is held each evening, and there are additional masses on holy days. Special services are conducted at Christmas and Easter, and marriages, baptisms, and funerals are performed as requested throughout the year. The church maintains a Christian cemetery on its property, and a few of the European staff members of past years are buried within the mission compound itself.

The Roman Catholic mission concentrates its evangelistic work among the Ibans, and the priests make frequent visits to the longhouses in the area, where they are aided by trained catechists resident in the longhouses. The attitude of the Catholic priests in Kanowit (two of them Europeans) is casual, and they are as popular and as respected among the non-Christians as they are among their own parishioners, and are consulted for advice and aid by members of all ethnic groups. The church, like-wise, does not attempt to obliterate native culture, ever when it is in partial conflict with Christian theology. Rather, the Catholic church fits itself into the patterns of Iban culture, and uses their media for its message. One example is the Iban custom of holding a special *gawai* (festival) a year or more after the death of an adult family member. At that time a *manang* (ritual specialist) conducts rites and collects offer-

ings for the spirit of the deceased. The family holds an all - night wake for the departed spirit, then places the offerings on his grave, which is cleaned and maintained. In modern times, a cement cover is frequently added to the grave at this time. In Catholic areas, where a priest is available, the ceremony is conducted as Iban custom dictates, except that the Catholic priest takes the place of the *manang*, and a cross is placed over the grave.

The Christian churches of Kanowit - - the Roman Catholic mission and the less-active Methodist church - - are the most multiracial religious bodies in the town at the present time.

Moslems

The Moslems of Sarawak are members of the Shafi'a school of the Sunni sect of Islam. The Sunni sect is the larger of the two sects of Islam, and is considered to be more orthodox than the Shia branch; their differences lie in their attitudes toward the successors of the Prophet. The Shafi'a school is one of the four schools of the Sunni sect, and it encompasses, and is limited to, the Southeast Asian Moslems of Malaysia, Indonesia, and the southern Philippines. Like all Moslems, they profess to the Five Pillars of Islam as contained in the Koran: the profession of faith that there is one god, and Mohamad is his prophet, the five daily prayers at dawn, noon, afternoon, sunset and nightfall, the month of fasting during Ramadan, the pilgrimage to Mecca, and the obligation to give alms to the poor. The Moslem traditions of male (and frequently female) circumcision are followed in Sarawak; many Sarawak Moslems are lax about the prohibitions against eating pork and drinking alcohol.

Since "Moslem" and "Malay" are virtually synonomous in Sarawak, any converts to the faith also adopting the concomitant culture, there are aspects of Moslem behavior and custom in Sarawak that have their origins in Malay historical and cultural traditions, predating the arrival of Islam in the fifteenth century, rather than in the philosophy of the religion itself. The concepts of a *semangat* (vital force), the role of the *bomah* (shaman), and the belief in *hantus* (spirit or ghosts), are all survivals of the Malays' animistic past; Hindu influences are seen in Malay language, art and ritual, especially in the traditional marriage ceremony called *bersanding*. Male and female circumcision, while in accord with Moslem culture, are also indigenous to the Malay people (LeBar, Hickey, and Musgrave 1964: 261).

Details of Malay/Moslem culture, beliefs, rituals, and religious activities can be found elsewhere in the literature (Zainal Abidin 1949, Winstedt 1950 and 1951); a brief but concise summary appears in N.J. Ryan's *The Cultural Background of the Peoples of Malaya* (1962: 28-73). There is no need to repeat these details here, for the Moslems of Kanowit Bazaar are neither sophisticated about nor intensely devout in following all the rituals and ceremonies of their faith, and the few members of the Malay community who are aware of

the details go unnoticed by the town as a whole.

There are only three festivals in the annual Moslem cycle that come to the attention of all Kanowit residents, two of them only in a perfunctory way. *Hari Raya Haji*, the tenth day of the last month of the Islamic lunar year, is held in celebration of the Pilgrimage. Returning pilgrims are honored, and can begin using the title *Haji* at that time. The Prophet's Birthday, the twelfth day of the third month, is celebrated in the *surau* (prayer house) by special prayers and services. These two occasions are known to the non - Moslem community only because they are recognized as public holidays by the Sarawak government. Few non-Malays are fully aware of the fasting during Ramadan (called in Malaysia *Bulan Puasa*) either, but all the people of the bazaar know, and look forward to, the holiday that ends the fast, *Hari Raya Puasa*. It is the major Moslem holiday of the year, and it will be discussed in a later section describing those religious festivals in Kanowit Bazaar that involves the community as a multiracial whole.

Iban Religion

Iban religion has also been described in the literature, and accounts of it may be found in Roth 1896, Gomes 1930, Richards 1963, and in innumerable articles in the *Sarawak Museum Journal*. It recognizes a pantheon of several hundred anthropomorphic gods and goddesses who intervene in human affairs. Rituals held on behalf of an individual or *bilek* family propitiate these gods through offerings and request their aid in practical problems. Rituals fall into four major categories - - those dealing with the cultivation of rice, those concerned with health and longevity, those concerning the acquisition of wealth, and those associated with warfare, headhunting, and prestige. None of these rituals is ever performed in Kanowit Bazaar; they are longhouse events, and few residents of the town have ever witnessed them (though they are, for the most part, open to attendance by any interested party). The Iban, too, have one major holiday of which everyone in the town is aware - - *Gawai Dayak*. *Gawai Dayak*, the first day of June, is not truly a religious aspects. It is a harvest festival, combining offerings of thanksgiving to the gods with secular celebrations of a good harvest. In former times, each longhouse held a *gawai* of thanksgiving at the termination of its harvest, and the religious aspects were a major element in the festivities. In recent years, however, the Sarawak government has set aside two days at the beginning of June for all natives in all parts of Sarawak to celebrate the harvest, and their "Dayakness", together, and it has taken on a more secular attitude than the earlier celebrations. Each major ethnic group in Sarawak has its "big holiday", and *Gawai Dayak* was created by the government from an amalgam of traditional local festivals to represent the culture of the native peoples; it will be discussed in more detail in a later section of the article.

Chinese Religion

Chinese religion, wherever it is practiced, has three major foci of orientation: the organized theologies of Buddhism, Taoism, and the nonreligious moral philosophy of Confucius; the "folk religion" of super natural powers, gods, spirits, and deities; and the cult of family ancestors. These three foci are not mutually exclusive; in fact, they are rarely practiced indepedently of each other. Whichever of the three is dominant in any specific ritual, belief, or function, the other two are integral subsystems supporting it. These three aspects of belief operate, as all Chinese relationships should, in harmony with each other. In the temple, at permanent or temporary shrines, in the home, at the graveyard, all three orientations mutually reinforce the fundamental relationship of the individual to his universe.

The organized theologies, Buddhism and Taoism, are never the dominant sector of religious activity in Kanowit Bazaar. No purely Buddhist rituals or Taoist ceremonies are ever performed. Buddha is included in the pantheon of folk gods, but is never elevated to a supreme position; the sutras, the legends, and the myths are all assumed as part of Chinese literature and custom, not as religious dogma. The same is true of the principles of the *Tao*--they are known, and subscribed to, as elements of traditional Chinese culture, not as a religious concept. Much the same is true of the Confucian philosophy; its ideals and precepts are known to the Chinese of Kanowit as elements in their Chinese heritage, and not through scholarship. Few members of the community have ever read the traditional books of Confucian scholarship, the classics; most cannot even name them all. A large percentage of the Sarawak-born residents -- the vast majority of the young -- have received English - language education; they have studied Confucius as a historical figure in their social studies classes, not as the foundation of their system of knowledge. And what they have learned about his ideas they have learned in English. Confucian concepts are only as strong in Kanowit Bazaar as Chinese culture itself is.

Folk religion is the primary focus of orientation of public religious activity among the Chinese of Kanowit, superceding even the ancestor cult. "Folk religion" is a Western name for this amalgam of beliefs; there is no term for these activities in the Chinese languages, as recorded Chinese history and literature were written by the scholarly Mandarin class, educated in the Confucian tradition, who did not wish to dignify these beliefs by admitting to their existence in print. As Kristopher Schipper (MS) has described it,

> But the term is interesting because it reflects, perhaps unwittingly, the disdain of the Chinese literati (whose outlook has been so often shared by our Sinologues) for all religious practises, in particular those of their own people. For the Confucian schoolmaster (as for the Protestant missionary and the 19th Century scholar), this religious system was in general nothing more than a shameful and disgusting set of

> superstitions, practised by the ignorant masses, the vulgus, with the exception of the peasants of Chu-fu (birthplace of Confucius) who liked nothing better, if we want to believe the school - masters, than reciting the classics.

Basic to the structure of folk religion is the belief in a direct and reciprocal relationship between this world and the "other world", and between man and the various gods and spirits generally. Gods, ancestors, and other spirits share a mutual dependence with human beings, bestowing aid in return for worship and honor. The "other world" is a shadowy, but real, counterpart of life here on earth, and is the home of both the departed ancestors of the family and the members of the diverse pantheon of deities -- dragons, ghosts, demons, animal spirits, gods and goddesses, deified culture heroes -- a jumble of spiritual beings. Folk religion focuses attention on the soul, the bridge between this world and the other, and the charms, rituals, and ceremonies to communicate with it. Some of the rites concern specific requests, asking a resident of the other world to intervene on one's behalf in the events of this world; others are conducted with the desire to maintain a good relationship, a harmony, with the other world, so that it will neither bring harm to the individual nor allow demon spirits to do so. Since the ancestors as well as the deified spirits are residents of the other world, one can ask the ancestors to help the individual by interceding with the gods on behalf of the living descendants, and one can also ask the gods to give comfort and care to deceased members of the patrilineage living in the other world. As in so much of Chinese religious thought, the harmony of the various parts of the organism is the fundamental concern. Many Chinese in Kanowit Bazaar today do not literally believe that the spirits are capable of affecting everyday life (though there are some who do); it is always wise, however, to keep the relationship harmonious.

"Ancestors worship", maintaining close and warm relationships with the souls of the departed members of the family, is not nearly so dominant in Kanowit Chinese religion as it once was in traditional Chinese culture. In his study of the sociological aspects of Chinese religion, C.K. Yang (1967: 46) discusses the role of the ancestor cult in family integration:

> In the routine existence of the individual, his social contacts were not very broad, but rather limited to a small circle. Meanwhile, as the members multiplied over several generations, the kinship group grew fairly large, contact between members became infrequent, and the strength of relationship between them was reduced in reverse proportion to the size of the group. On the other hand, there were occasions that demanded effective relationships among the members in the larger kinship group. In the traditional Chinese social order, where the individual relied heavily upon the size of

> the family and clan for social and economic assistance, such occasions were frequent. One way to keep the larger group alive in the consciousness of the individual, even in his socially restricted routine existence, was by constantly reminding him of the common origin of the group and the resultant biological relatedness of all the descendants of the same ancestors, and by keeping alive the social obligations imposed by such relatedness.

The traditional social order does not exist in Kanowit Bazaar in the 1970s; the individual is not required to rely entirely upon the size of the family and the clan for social and economic assistance, and the family is frequently too small to help anyone other than its nuclear members. The clan, as known in traditional South China, has not survived the migration to Kanowit Bazaar, and there are no practical economic inducements to remember it. The nuclear family is of dominant importance to the Chinese individual of Kanowit, and his ties to it are strong; veneration of deceased members of this nuclear group are retained in Kanowit today. The larger group, whose existence was once so important to the individual, is largely ignored. Ancestor worship is still an integral part of Chinese religious activity in Kanowit Bazaar, but when it passes beyond the limits of known nuclear or extended family members, it is regarded, as are Buddhism, Taoism, and the Confucian ideals, as an aspect of Chinese cultural heritage, rather than as a vital religious belief.

In traditional South China, and in Taiwan today, virtually every household --nuclear, joint, or extended -- has a household shrine in honor of the ancestors of the group placed in a prominent position in the home. Only 28 of the 186 Chinese households in Kanowit Bazaar (15 percent) have such shrines. Not one of these shrines even approaches the degree of dominance, elaboration, or centrality accorded to these objects in other Chinese areas, and a visitor from rural Taiwan would have difficulty recognizing the rude shelf with its plaster Buddha and faded photographs as the parallel of his elaborate home altar.

The Chinese Festivals

It is in a truncated manner, therefore, that the cycle of traditional Chinese festivals is celebrated in Kanowit Bazaar. Only a small portion of the Chinese population has sufficient knowledge about, or interest in, religious activities to celebrate any but the most important festival days. The secular aspects of Chinese festivals receive the widest support; the religious aspects have a limited following.

Kanowit does not have any community temples, clan or family temples, ancestral halls, roadside or street-corner shrines, sacred locations, full-time re-

ligious meeting halls. There is only one structure outside of the private households that serves a religious function for the Chinese, the pavilion at the Chinese cemetery, and that is used only during funerals and at *Ch'ing*[1] *Ming*[2] (Pure, Bright), the annual grave - cleaning ceremony during the Festival of the Dead. Chinese folk religion in Kanowit Bazaar is, therefore, a domestic affair. Maurice Freedman has stated (1970: 176 – 77) that Chinese rituals for the ancestors that are centered upon a temple or ancestral hall are usually an activity involving men, while women are more prominent in domestic rites:

> The ancestral hall is not merely the site of agnation; it is the locus of the political life of the agnatic community, and in that life women can have no public place. The contrast with domestic worship is sharp: that sphere belongs above all to the women; the ancestors are capable of some immediate intervention in the lives of their descendants; it is a realm of personal relationships between the living and dead. In the halls the ancestors are raised by men to a plane from which notions of punitive behavior are excluded, whence only pride and generalized benignity flow.
>
> The very same systematic difference is to be seen between the rites performed at the graves of recent forebears and those at structurally significant tombs and remoter ancestors. When family parties go out to the graves (ideally sited in the hills) to care for and make offerings at them - - which they do at least at Ch'ing Ming - - they enter into the same kind of relationship with individual forebears as we find in domestic worship. The women are prominent; personal appeals to the dead may be made; the delicacies offered are likely to be adjusted to the tastes of the departed.

Chen Chung-Min (1967: 192) has noted the same sexual role behavior in rural Taiwan, and it is equally true for Kanowit Bazaar. The festivals described below, being located in and directed toward the domestic unit, and appealing in a personal way to immediate forebears, are planned, organized, and executed by the women of the household. The men participate in the rituals, but the women made all the preparations. This is also true of the activities conducted at the family grave sites during the *Ch'ing*[1] *Ming*[2] Festival. The ceremonies performed at the cemetery pavilion, the only parallel to an ancestral hall, however, are more formal, more honorific, and are directed toward generalized ancestors rather than to recently deceased and well - remembered nuclear family members; they are planned, prepared, and executed solely by men.

Chinese New Year, the first day of the first month of the Chinese calendar, is the most outstanding of the Chinese festivals in Kanowit. It is the only

one of the cycle of festivals which Chinese of all dialect groups, all ages, all occupations and backgrounds, all social and educational levels celebrate. It is one of the four big holidays in Sarawak, and since it is the only Chinese festival that directly involves the non-Chinese of the town, it will be discussed together with New Year, *Hari Raya Puasa*, and *Gawai Dayak* below.

Nine days after Chinese New Year is *Pai*^{3} *Ti'en*^{1} *Kung*^{1}, the birthday of the King of Heaven. It is a night festival; the ceremonies of prayer and offering should begin at midnight, the beginning of the ninth day. In Kanowit, it is the Hokkien residents who are the chief observers of *Pai*^{3} *Ti'en*^{1} *Kung*^{1} (and all of the Chinese festivals), though only a small percentage of the Hokkien families in the town -- generally the same ones who also have household shrines -- participate in this, or any of the festivals.

In the evening of the eighth day of the first month, after the shops have closed for the day (about 9 p.m.), the participating families begin to erect their household altars. In old China, and in those parts of Malaysia (Penang, Singapore) where Chinese religious behavior is more traditional, special altars are used for *Pai*^{3} *Ti'en*^{1} *Kung*^{1} (Wong 1967: 50f). When they are erected for the festival, outdoors under the sky, great care is taken to see that they are not soiled, and the legs are raised off the ground on wooden stools to prevent their defilement by touching the earth. In Kanowit, there are no special altars; normal household tables are used instead, and are hung with cloth -- special embroidered altar cloths, if the family owns them, otherwise with any clean and colorful print. They are placed in the doorway of the home or shophouse, extending into the main room of the household. Only one of the fifteen *Pai*^{3} *Ti'en*^{1} *Kung*^{1} altars in Kanowit Bazaar in 1971 was raised off the ground -- on 7-Up crates. The most common of the altar cloths, bought in Sibu, portrays the Eight Immortals of Buddhist legend across the top and a large, fuzzy animal in the center, identified by some as a lion, by others as a griffin, or perhaps some other creature. On either side of the altar a stalk of sugar cane is fastened to the legs of the table, with the fronds bowed together to form an arch. Yellow crepe-paper streamers hang from the stalks of cane.

The altar is filled with offerings of food, and incense sticks are placed both in a censer at the front of the altar and in the food itself. By late evening the preparations have been completed, and everyone has had an opportunity to walk through the town to view the various altar on display. At midnight the family members gather behind the altar for the brief ritual. Each member lights an incense stick, kowtows to the censer (the focal point of any Chinese ceremony) and places his incense in the burner. As in most Chinese rituals, the burning of incense is the basic symbol of communication with the spirit world. The *Pai*^{3} *Ti'en*^{1} *Kung*^{1} ceremony concludes by having the oldest member of the family, male or female, take the two stalks of sugar cane from the altar and carry them into the street. There a small bonfire of paper spirit money has been lighted. The elder holds the stalks over the fire until the yel-

low paper tassles have been burned (Wong suggests [1967: 51] that this is symbolic of offering gold to heaven, as well as representing longevity, inherent in the evergreen sugar cane). The fronds are then broken from the stalk and added to the fire.

The *Ch'ing* [1] *Ming* [2] Festival is celebrated throughout China, and is second only to Chinese New Year in its preparation by the Chinese residents of Kanowit Bazaar. Its date is determined on the Western calendar, April 5th; this is very close to the traditional custom of holding *Ch'ing* [1] *Ming* [2] 106 days after the winter solstice, or as the Chinese residents of Kanowit say, "sometime around Easter". It is the only one of the Chinese festivals in Kanowit Bazaar in which there is a distinct separation of dialect groups. April 5th is the date for the Hokkien *Ch'ing* [1] *Ming* [2] called by them *Cheng Beng*; the peoples of Kwangtung Province, the Cantonese and those who follow their rituals, perform their rites the day before the Hokkien, and the Foochow the day after. The *Ch'ing*[1] *Ming*[2] rituals of the three groups are virtually identical (with one exception); the Hokkien rites, which are the more extensive and involve the largest number of residents, will be described here as the standard. But despite these similarities, and even complete duplications of effort, the Chinese of Kanowit retain the separate identities of their distinctive dialect or regional origins. In no other public behavior (except spoken language) are these dialectic differences so obviously displayed. Perhaps it is because *Ch'ing* [1] *Ming* [2] honors the ancestors that the differences or origin are highlighted.

There are two levels of participation in the *Ch'ing* [1] *Ming* [2] activities, the individual family and the *Ch'ing* [1] *Ming* [2] Society. A few days before the *Ch'ing*[1] *Ming*[2] the Chinese cemeteries are burned over to clear off all of the grass and weeds that have grown there during the past year. At this time also the *Ch'ing* [1] *Ming* [2] Society begins its preparations. The societies are ad-hoc groups -- their membership is open to any member of the dialect group who makes a financial contribution to support the festival -- and the society is active only for the few days preceding *Ch'ing* [1] *Ming* [2]. On the evening of *Ch'ing* [1] *Ming* [2], after a banquet of the members of the society, the group is dissolved until the following year. The *Ch'ing* [1] *Ming* [2] Society has a chairman who is chosen by lot during the banquet to serve the following year. He is aided by four assistants, and is responsible for collecting the financial contributions, purchasing the food and paraphernalia, organizing the activities of the society, and leading the rituals. The few ceremonial items that are used every year -- drums, cymbals, carrying trays and baskets -- are owned by the society and are stored in the clubhouse of the Hokkien Association, though the only connection between the two groups is a considerable overlapping of their memberships.

On the morning of *Ch'ing* [1] *Ming* [2] the members of the *Ch'ing* [1] *Ming* [2] Society gather on a corner of Main Bazaar Road. They bring out their drums, cymbals, and food offerings, and assign members to utilize them during the

ceremonies. The procession of members marches to the pavilion at the cemetery. There a low stone platform serves as an altar, and the food offerings are laid out upon it. The group gathers around the altar, burning incense and kowtowing to the gods. The pavilion contains two engraved stone tablets, one dedicated to the "Good Brother God", and the other to *T'u*[3] *Ti*[4] *Kung*[1], an earth god who also represents wealth; the inscriptions on these markers are repainted with red paint (even though the other *Ch'ing* [1] *Ming* [2] Societies have already done so on previous days). A prayer, especially composed for use during the *Ch'ing* [1] *Ming* [2] ceremonies, and written in fine calligraphy on red paper, is read and then burned. When the ceremony is completed, the procession reassembles and walks to the new Chinese cemetery outside of the town, where the ritual is repeated. The food offerings and paraphernalia are then returned to the Hokkien Association clubhouse. There the latter are stored away until the next *Ch'ing* [1] *Ming* [2]and the food is given to the cook to be used for the evening banquet. Any man who has contributed more than five dollars to the *Ch'ing* [1] *Ming* [2] Society is invited to attend the banquet; any elderly men who are judged to be too poor to contribute money are asked to come as guests. After the dinner is over, all those who are interested in helping with the next year's celebration write their names on a slip of paper, and a drawing is held to select the chairmen and four assistants for the following year.

In 1971 the Hokkien *Cheng Beng* Society had about one hundred members, about twenty of whom actually participated in the ceremonies at the cemetery pavilion. The membership was, and always is, limited to males. The total expenditures of the society were over $1,200: $70 spent for a goat, $120 for two pigs, $50 for cakes, $100 for spirit money, incense, and so forth, and $20 for fruit. There were twelve tables set for dinner (over one hundred guests), and the cook was paid $600 to cover his expenses and buy additional food for the banquet. Only $1,000 was collected by the society, and the cost overruns, which are common, were met by the chairman and his four assistants.

Concurrent with, and completely independent from, the ceremonies of the *Ch'ing*[1] *Ming*[2] Society are the personal activities of individual families at the graves of their relatives. The grave site is cleared of weeds and dirt, and paper spirit money is pinned to the ground over the grave; additional spirit money is burned, as is incense. The inscriptions on the tombstones are repainted, if necessary, and food offerings are placed on the grave. The degree of religious involvement, as opposed to simple grave maintenance, is variable with each family; Christian families participate in *Ch'ing* [1] *Ming* [2] in ways not visibly different form their non-Christian neighbors.

One of the customs associated with *Ch'ing* [1] *Ming* [2] is found only among the Cantonese of Kanowit. On the third *Ch'ing* [1] *Ming* [2] after the death and burial of a Cantonese (or followers of Cantonese custom), the members of his

family reopen his grave. The bones, usually all that remains of the body, are carefully removed and cleaned, one by one, then spread out on a mat in the sun to dry. When all the bones have been cleaned, they are placed in a large ceramic jar, which is then reburied near the original grave site. The abandoned coffin is left to rot away. This practice of secondary burial is unique to the Cantonese among the Chinese of Kanowit, but it is not limited to the non-Christian. The custom is also practiced in the Cantonese areas of China and Hong Kong (though there the jar is not always reburied) and was brought to Sarawak by the original immigrant families. It is interesting to note that secondary burial in jars -- Chinese jars -- is a traditional custom of several indigenous tribes of northern Borneo. While the Cantonese and the native peoples have different origins for their customs, and the similarities are coincidental, the parallel is fascinating nonetheless.

The Fifth Moon Festival (*Tuan*[1] *Wu*[3] *Chieh*[2]), often called the Dragon Boat Festival, is recognized and celebrated by only a few families in Kanowit. The date is marked chiefly by the preparation of a special food associated with the occasion, the *tsung* [4] *tzu* [3], triangular rice cakes filled with chestnuts, bean paste, or pork, and steamed in banana-leaf wrappers. The traditional variety prepared with a lye, which is then dried and ground into powder for medicine, is not made in Kanowit. The festival is a minor one in Kanowit, and only those non-Chinese visitors to a Chinese home who are offered some *tsung*[4] *tzu*[3] to be eat would be aware of the celebration.

The seventh month of the Chinese calendar is traditionally devoted to the spirit world, especially to those spirits (the "Hungry Ghosts") who have no living descendants to honor them throughout the year. Wong (1967: 136) states that these celebrations are second only to Chinese New Year in importance and observation in West Malaysia, and the most important day of the month, the fifteenth, is celebrated elsewhere in Borneo by elaborate public festivals. The month in general and the fifteenth day in particular receive very little attention in Kanowit Bazaar. A few of the Chinese residents, primarily those same Hokkien families who follow all the festivals in the annual cycle, observe the occasion, but there are no extensive preparations. The people of Kanowit offer only small amounts of incense and spirit money. Lighted candles may be placed at the doorway and steps of the home to guide the spirits out of the house, but some residents do this on the first and fifteenth days of every month, and only a few additional people do it especially for the "Hungry Ghosts". The seventh day of the seventh month, the Festival of the Cowherd and the Spinning Girl, now immortalized in the Milky Way, is completely ignored.

Another of the most popular and well-known Chinese festivals, the *Chung*[1] *Ch'iu*[1] *Chieh*[2], or Mid-Autumn Festival, also receives scant attention in Kanowit Bazaar. The holiday, which falls on the fifteenth day of the eighth lunar month, is usually called the Moon Festival, or simply Mooncake Day, for it is

believed that the moon never shines brighter than on this night. It has been celebrated in China since the T'ang Dynasty (618 – 907), and was associated with harvest festivals. Mooncakes are the sole remnant of *Chung*[1] *Ch'iu*[1] *Chieh*[2] in Kanowit. These cakes come in several varieties and qualities. All measure about four inches in diameter and are about two inches thick, and are filled with sweet bean paste (the least expensive), brownish seed paste, sweetmeats, and nuts; the most expensive cakes are not prepared in Kanowit, but are purchased from bakers and importers in Sibu. Almost all of the Chinese in Kanowit are familiar with the festival, but few celebrate it.

The last holiday of the annual cycle that receives any attention at all in Kanowit is the Winter Solstice Festival (*Tung* [1] *Chih* [4]). It falls on the twenty-first and twenty-second of December on the solar calendar, the shortest day of the year, and was traditionally associated with family ancestors and domestic gods. It features the preparation of small, marble-sized gummy rice balls, some colored red, some with a nut-like flavor, that are both eaten and used in ceremonies. Several of these sticky spheres are attached to the door jambs within the house, as offerings to the door gods. The day concludes with a family reunion banquet. The only family known to observe this festival in Kanowit in 1970-71 probably did so for the benefit of its anthropologist, but it was reported that the festival is well-known among those households that observe the annual cycle, and that they celebrate it "from time to time".

Several other types of Chinese religious activity in Kanowit Bazaar are not regulated by the annual cycle of festivals. Some families burn incense and paper spirit money on the monthly anniversaries of the death of a family member for a year after the funeral, utilizing special shrines consisting of a photograph of the deceased and a censer, placed on a shelf or table. As previously mentioned, a few families (all Hokkien) light candles and incense in their doorways on the first and fifteenth evenings of every lunar month to guide the spirits from their homes. Most shophouse families mark the death of a family member by pasting a strip of paper diagonally across the shop's signboard, leaving it in place for one year. Most Chinese wear a mourning patch, a small square of dark - colored cloth pinned to the shirt sleeve, after the death of a close relative, but neither the colors used nor the length of time they are worn conform to the formalities of traditional custom (as described in Freedman 1958: 44).

To some Kanowit Chinese, belief in the power of spirits and demons is a reality. One Chinese woman in Kanowit is especially skilled in dealing with evil spirits, though she does so only on an occasional and part-time basis. She is called upon as needed by families who share her beliefs, and was successful in exorcising the ghost of a former boyfriend from one shophouse in late 1970. She realizes that many, especially the young, scoff at those beliefs, and she does not discuss her powers, or allow any observers during her rituals. Not so shy was a professional spirit medium, a male, imported in 1971 to cure the

daughter of a prominent family who had been driven mad by a tree spirit. His rites of exorcism were open to all who were interested, and his audience numbered over one hundred people of all races. In addition to going into a trance, being possessed by his familiar spirit, and preparing many personal and household good luck charms, he also astounded the crowd by piercing his cheek with a large metal pin, which he then wore as he continued his curing rites. He successfully located and neutralized the offending spirit, residing in a tree behind the shophouses, and the girl, in time, returned to normal. A number of previously cynical young men were seen carrying his good luck charms in their wallets thereafter.

Funerals, especially those of elder male members of the family, are highly religious events in Kanowit Bazaar, as elsewhere in Chinese society. They have been well reported in the literature in the past, with Freedman 1958 and C.K. Yang 1967 discussing their general role in Chinese culture and their associations with the cult of the ancestors, and Fei 1939 and Gallin 1966, among others, providing accounts of specific funeral rituals and activities. They need not be described here except to note that funerals in Kanowit are rarely as elaborate, formal, or well-attended as those described from China and Taiwan.

THE FOUR BIG HOLIDAYS

Four holidays dominate the annual cycle of festivals in Kanowit Bazaar (Table 1). Each one represents one of the racial/ethnic groups of Sarawak; each is recognized by the Sarawak government as being symbolic of those cultures; each involves some degree of interracial activity and community-wide celebration. Religion plays a varying role in these festivities; secular enjoyment dominates them. During three of the holidays, Chinese New Year, *Gawai Dayak*, and *Hari Raya Puasa*, members of one of the major ethnic groups play host to each other, and to their friends and neighbors of the other *bangsa* ("races"); on the fourth, Western New Year, all of the young and/or Westernized members of the community combine to socialize together.

Hari Raya Puasa is the greatest celebration of the year among the Malays and other Moslems of Sarawak. For the previous month they have been observing the Great Fast of Ramadan, avoiding all food and drink from sunrise till sunset each day. When the new moon of the month of Syawal is sighted, the fast is over, and the celebrations begin. Each family has bought as much new clothing as it can afford, and everyone dresses in his best to go visiting and to entertain his guests; *Hari Raya Puasa* is the only time that the traditional Malay costume is seen in Kanowit Bazaar. The families go through the town, stopping to visit the homes of their friends. Everyone tries to go home for *Hari Raya Puasa*, and reunions are warm and old friendships are revived.

Gifts are exchanged with family members and close friends. Each family has prepared innumerable cookies and sweet biscuits, pop corn, prawn chips,

TABLE 1. The Cycle of Festivals in Kanowit Bazaar 1971

Date On Western Calendar	Festival Date On Chinese or Islamic Calendar
January 1, 1971	WESTERN NEW YEAR'S DAY*
January 27, 1971	CHINESE NEW YEAR 1st day of the 1st lunar month
February 4, 1971	*PAI [4] T'IEN [1] KUNG [1]* Birthday of the King of Heaven; 9th day of the 1st lunar month
February 6, 1971	*HARI RAYA HAJI* Festival of the Pilgrimage; 10th day of Dhulkaidah (12th lunar month)
April 4, 1971	Kwangtung *CH'ING [1] MING [2]*
April 5, 1971	Hokkien *CH'ING [1] MING [2] (CHENG BENG)* Festival of the Dead; 3rd lunar month; about 106 days after the Winter Solstice
April 6, 1971	Foochow *CH'ING [1] MING [2]*
April 11, 1971	EASTER SUNDAY
May 8, 1971	MOHAMAD'S BIRTHDAY 12th day of Rabi-ul-Awal (3rd lunar month)
May 28, 1971	*TUAN [1] WU [3] CHIEH [2]* 5th Moon Festival (Dragon Boat Festival); 5th day of the 5th lunar month
June 1, 1971	*GAWAI DAYAK* Native Harvest Festival
August 31, 1971	*HARI KEBANGSA'AN** National Day
September 4, 1971	*KUEI [3] CHIEH [2]* Hungry Ghosts Festival; 15th day of the 7th lunar month
October 3, 1971	*CHUNG [1] CH'IU [1] CHIEH [2]* Mid-Autumn Festival (Moon Festival); 15th day of the 8th lunar
October 21, 1971	*BULAN PUASA* The Month of Fasting begins; 1st day of Ramadan (9th lunar month)
November 20, 1971	*HARI RAYA PUASA* Celebration of the end of the Month of Fasting; sighting of the new moon of Shawal (10th lunar month)
December 22,1971	*TUNG [1] CHIH [4]* Winter Solstice Festival
December 25, 1971	CHRISTMAS

* nonreligious festival

curries, and snacks; the holiday is especially known for its large variety of cakes. Hot and iced drinks are ready to be served; more liberal families offer beer to their visitors. As with *Gawai Dayak* and Chinese New Year, all are welcome to the home, and strangers are frequently invited in from the street to celebrate the holiday with the family and its guests. Harrisson (1970: 168f), in his accounts of Malay household finances, cites several examples of the expenditures of typical Malay families for *Hari Raya Puasa*; a family with an average income of $120 per month (the basic salary for an unskilled government laborer) that spent $102.70 for clothing, food, cigarettes, and household items is given as an example. Even in the small Malay community of Kanowit; *Hari Raya Puasa* is a lavish and hectic event, and Malays are generous in sharing their celebration with the others in the town.

Gawai Dayak, the holiday on June first in honor of the native peoples of the state and celebrating their recent harvests, is an affair of the longhouse rather than of the bazaar. It is, however, a two - day public holiday, and many of the residents of Kanowit take this opportunity to visit their Iban friends, and many Ibans come into the town during the festivities. Ibans living in the town try to return to their longhouses for the occasion, and the boarding students at the local schools are given a holiday to join their families for the *gawai*.

Gawai Dayak, like all longhouse life, is more casual and informal than the festivities of the bazaar. Some extra activities may be organized for the holiday -- cockfights, dancing on the *ruai* (veranda) in the evening, a wild-pig hunt -- but these are typical entertainments for the Iban and are not limited to *Gawai Dayak*. *Tuak*, the Iban rice beer, is brewed in large amounts, as the rice is plentiful so soon after the harvest. A few special events may be prepared, such as dressing up in the finest old traditional costumes and heirloom jewelry but the major distinction between *Gawai Dayak* and the usual Iban party is in its quantity rather than its content.

The *Gawai Dayak* visitors to the longhouse -- Iban relatives and friends from other longhouses, Chinese towkays come to visit their clients, Catholic priests, government civil servants and officials, Western travellers or volunteer workers, groups of students from the local schools, male and female, Chinese, Malay, and Iban, on holiday together -- enter the longhouse by ascending the notched-log *tangga* ladder and are greeted by a woman with a glass of *tuak* that must be consumed on the spot. It is the first of many, and if the visitor refuses to drink more, a gang of older women may wrestle him to the floor and literally pour it down his throat. *Tuak* flows on the *ruai*, center for all social activities, and in the *bileks* of each family as well. It is customary to visit each *bilek* to wish them well, and at each a new glass of *tuak* is produced. As evening falls the gongs are brought out, and each visitor is called upon to dance for the group, and any effort receives a warm response and another glass of *tuak*. Skilled dancers, male and female, are urged to come forth to display their abilities. The celebrations frequently go on all night. Iban hospitality at *Gawai*

Dayak is as sincere as it is overwhelming, and it is displayed equally to visitors of all racial groups.

Chinese New Year is unquestionably the biggest event in the annual cycle of Chinese life in Kanowit. It is the only time during the whole year that all of the shophouses in the bazaar close for the day; no other occasion is sufficiently important for all business to stop. Traditionally, Chinese celebrated New Year over a fifteen day period during the first lunar month, but today the celebrations center around the two days of public holidays granted by the government. As with the Malays and the Ibans, students return home for the festival, and families try to plan reunions and visits at this time. Everyone dresses in his best clothing to visit his friends and neighbors, and all are welcome guests in the home.

Religion plays virtually no role in New Year celebrations in Kanowit Bazaar. There are no rituals, services, or special events; secular entertainment dominates completely. There are special film shows, talent contests, and sporting events, and life among the Chinese is a two-day party. Outstanding for this occasion is the food, available in quantities and quality not usual at other times of the year. Evening feasts of ten or twelve courses, with a dozen or more guests at the table, are not unusual, and an individual may be invited to several such banquets in one day. In addition, he has been offered food and drink at each home he has visited since he began his round of greetings in the early morning. Each dialect group prepares its special foods, each housewife cooks her best recipes, and everyone is urged to try them. Beer, the most popular alcoholic drink among the Chinese of Kanowit, flows freely and is supplemented by their favorite beverage for more elegant occasions, brandy.

Elder members of the family give gifts of money wrapped in red paper envelopes to their younger relatives, calling these presents by their Hokkien name, *ang pow.* If the family is large, these *ang pow* can total several hundred dollars. Every home is open, and passersby are often called in from the street to have a glass of beer and some snacks. People come in from the rural farms to visit in the town, and boatloads of families and friends ply the river visiting the gardens along the banks. Everyone is welcome, and hospitality is not limited to Chinese alone; Ibans visit their towkays, students their teachers, employees their employers, and neighbors one another.

Nothing of great importance or substance happens in Kanowit Bazaar during the days of Chinese New Year in government, in business, in education, or in any of the routine activities of life. Its significance for anthropology lies not in its socioligical patterns but in its human emotions.

Western New Year is a holiday in Sarawak as well. In Kanowit, it is celebrated by the least number of people of all the four big holidays, but it is the most multiracial of the festivals, as it is not sponsored by any one single ethnic group. A New Year's Eve party is held each year, organized by members of the young, Western-educated civil servant class, but open to anyone who pays the

admission fee. Drinks are served, a band plays, there is dancing, both Western and Malay, and group games and contests, such as musical chairs, are played. Local talent is asked to perform for the group. In 1970-71 there was a contest to pick a "Batik Queen", and a prize was awarded.

It is the degree of racial mixture that makes the New Year's Eve party significant to the development of a multicultural community in Kanowit. It was attended by several hundred citizens of all racial groups, and they were all at ease with the situation and comfortable in their interrelationships. For the young, this came from a long history of interracial associations, a common educational experience, and a similar set of values and goals, all deriving from their English-language education. The older members of the community are at ease because such situations are not new to them; they have become more frequent in the bazaar. Events such as the New Year's Eve party produce a body of shared experiences that tie the participants together, even if in only a trivial way, making it easier for them to bridge the gap of communication and culture in matters of more consequence.

Note

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SARAWAK RESEARCH KALEIDOSCOPE, 1923 – 75+

TOM HARRISSON

In 1932, when the present writer organized the (wholly biological) Oxford University Expedition to Mr Bulit (Baram), it was quite an operation to get permission to study **anything** inland in Sarawak. The third Rajah Brooke, an unintellectual potentate, did not welcome young outsiders among the pagans -- largely for the right reasons. Nor was the then Curator exactly enthusiastic! After 1946, under British colonial rule, we returned to the older, more open-door Brooke policy. Fifteen years later, at the suggestion of the editors of **Bijdragen** (Leiden), I went fairly thoroughly into the results of anthropological and ethnological studies in Borneo up till that time. The conclusion was mildly depressing in regard, mostly, to the uneven data published, with paucity of intensive field work by quality observers, either in depth research on selected groups or in wide, overall comparative studies seeking answers to general questions.[1]

A lot has happened, sometimes for the better, since then. An editorial invitation to re-examine this scene by reviewing these two special Sarawak issues of *Studies in Third World Societies* was, therefore, received with mixed pleasure and concern.

Much of what has happened, in social science terms, has in effect been in this south-westerly, second largest of the island's four political units. Comparatively less new work has been undertaken on the much larger and often less accessible Indonesian territory or Kalimantan -- still a total archaeological blank, too. Sabah to the north has in recent years virtually exluded non-governmental expatriate field workers, largely as the result of unfortunate earlier experiences (these happened in Sarawak, too; but we buried 'em). Brunei, despite a liberal attitude, offers less scope spacially and racially, and has certain limitations.

Sarawak, with its vivid range of nowadays largely accessible people, has preserved the "open-door" policy, post-colonially rare anywhere. These two volumes show the effect. In parallel, volume 21 of the *Sarawak Museum Journal*, in press, is a "special" on "Central Borneo", mostly anthropological and lin-

guistic (but with no overlapping authors).[2] An impressive range of research is thus involved all over. Few small countries in the world have been the subject of so much socially scientific examination, primarily by graduate students, who then disappear in search of their doctorates. Surely Sarawak has the highest per capita non-endemic D.Phil. ratio on earth? The standard of this research has been generally high -- helped by local populations conditioned to acceptance on top of a tradition of warm hospitality (part of the ecological economics of Bornean travel). In a year, here, you can get to know a people better superficially than in five elsewhere.

This short - sojourn approach does, however, determine much the greater part of all published output. Does this matter as much as one tended to feel it might (in the Leiden exposition) a decade ago? Are present standards adequate?

Since the first and much the longest contributions here comes from a friend and colleague who has not worked at all in Sarawak, the question may well be answered obliquely by considering George Appell's paper in some detail, since he aims at an overall view for Sarawak research, from the beginning. The following, field-based papers on urbanization (2), linguistic analysis (3), agricultural aspects (2), social anthropology proper (2), are then set in some closer perspective, hopefully. In the last category, a long-time neo - Sarawakian is particularly struck by the novelty -- significantly enough -- of Richard Fidler's triracial analysis of rituals in Kanowit, middle Rejang. As he aptly there observes: " In Sarawak, **everyone** is a member of a minority group".

This abundant "minoritism" has attracted massive attention, as so fully detailed by Appell. Perhaps this very plethora of groups has led to some of the problems which seem to some of us who work a little outside these disciplines to make the end result less satisfying than might be expected, especially with regard to the already indicated apparent paucity of wider perspectives.

Within the social sciences George Appell's main emphasis is on Social Anthropology, with a quarter of his text. But he commendably surveys a number of other approaches, including geography, medical and social history; curiously not physical anthropology or prehistory, both desirable in a complete overview of such a minority kalaeidoscope? However, this is far the most comprehensive account of its kind to date. We must be grateful to the editor for finding it full space. Taken along with the other, varied contributions, the result is excellent both for present reference and for overdue planning of future research on a better thought - out basis. These volumes are important...

In his appreciation of the social anthropologists and others, Appell himself earns merit marks for stressing that his colleagues have previously often "put too much emphasis on Kinship". This emphasis has led to some extravagant etymology which emerges almost incomprehensible to the uninitiated. That has been one main reason why the **results** of so much anthropological research have rarely influenced previous government officers, who started out

hoping for great things from the visiting analysts of the human matrix. When Sir Charles Arden Clarke came in to be first Governor of Sarawak (1947) as, at first, a separate Crown Colony, he arrived impressed with social achievements in Africa. Out of this interest arose the visit by Edmund Leach and his report on "Social Science Research in Sarawak" (H.M.S.O., London, 1950).[3]

Dr. Leach, then at L.S.E. (now Cambridge) made the first - - and almost the last - - attempt to cover the whole territory eye-wise and advise a program. He had insufficient time under then travel conditions; and there was little pre-existing field data for him to draw upon in support. So some of his ideas have, in the event, confused rather than clarified. Nevertheless, from this rapid, clever, serious, intense observer stemmed a series of five "socio-economic" research projects, government financed and expected (in Sarawak) to aid in necessary post-Brooke development. Three of them were of high quality.[4]

Such reports were normally then prepared by graduate students, who thenceforth became a standard feature of the Sarawak landscape. Twenty years in the curatorial chair which was supposed to handle this expatriate flow as well as seeing (as Government Ethnologist) the relevant human problem files, leaves the sad impression that all this effort was ignored by colonial administrators, beyond faint lip - service. The neglect of Stephen Morris' thoroughly practical report on Melanau sago is a striking case in point.

Such neglect was not due to bad intent. Rather it arose from a distrust of research jargons used, kinship inclusive. Behind this communications failure, too, lay a deep reservoir of local knowledge held and valued by the senior officers continuing in control from Brooke times. These non-arrogant men loved Sarawakians, commonly specializing in one or several"minorities", learning their languages and maybe living with their women.[5] They could think they know more about "real people" than some of those sometimes brash university graduates, here today, gone next monsoon, especially as regards depth of understanding on issues like social change and political development. How often one heard them make almost exactly the complaint Appell now states (belatedly?) from inside anthropology, namely against the "proliferation of terminology and classification that **insults** not only common sense but the basic premises of anthropology as well". Brooke Sarawak was firmly based on pragmatic common sense and direct experience; that tradition survived the Japanese occupation to dominate postwar rule.

None of this is, of course, to suppose that anthropological or any other research necessarily has to be "useful". But it is an aspect to which Appell devotes extensive attention, rightly. Moreover, it is increasingly important into the future, as minorities of all sorts become more and more conscious of outside study, potentially intolerant of the *voyeur* serving only a thesis cause. This has especially been a factor in rejecting research in Sabah, as widely in the Third World. Despite the continuingly liberal attitude of the present Sarawak government, the risk exists here, too. Clearly the more science can adjust to

this fact of life the better, provided integrity and objectivity are not impugned.

Perhaps it was "kinship" jargon which most turned off non-specialists in the fifties and sixties. Everyday and night experience plus common sense taught that this aspect had been over - emphasized in Borneo. Friendship could be much more important. Freeman eased the way out with the "*bilek*" (room) concept, now elaborated interestingly by William Schneider (Publication No. 3) for the Selako (Land) Dayak. As he sees it, we must discard the strait jacket of biological descent and see kinship as (to quote): "after all is said and done, a matter of ideology and not biology." Some years spent among the roomless Kelabits taught that affection and dislike could override all alternative links, while the in-law relationships were profoundly, vitally confused too. (It is much the same in Brussels, in 1975!).

Looked at practically, the non-result of research which seems most surprising is the lack of any real clarification on classification of Borneo peoples. We really seem no further on then when Lyle Noakes and I tried to spell out the problem in the first comprehensive Sarawak census. Indeed, I find Al Hudson's brave efforts with linguistics at some points add confusion; they do not seem to conform, in detail, to the non-verbal, common sense, human "realities".[6] Nor can I work, on the ground, with Appell's own classificatory system proposed for Sabah.[7] While Kalimantan, despite LeBar, is a sort of terminological jungle of green doubts. It is all very well to say that there can be no "true" classification, only one's useful "for the purposes at hand" (Appell). But in *all* other sciences, some kind of coherent classification is the BEGINNING of systematic reportage; without it no one can see the tree for the bark. Biological research could not even *exist* if there was no exact, agreed classification of the life observed.

Maybe there is a defect in the ground-line approach? Could we be looking the wrong way round? For example, Appell praises Clifford Sather as a pioneer student of the Bajau (though there are none in present Sarawak). But he never once mentions David Sopher (now Professor of Geography, Syracuse University), whose *The Sea Nomads* (Singapore Museum, 1965) pioneered human ecology in this area. For the first time in the region a scholar looked at a minority, the maritime boat people of the South China and Celebes seas, as an ecological unit, on an environmental, geographical and climatic base. His introduction is subtitled "The Habitat of the Sea Nomads". The first three chapters give a detailed analysis of the four main environments which the Bajau use ashore, followed by two more chapters on sea-land relationships. We have nothing comparable, a decade later, for the enormously larger majority who live 100 percent ashore. Why not?

Keeping on mentioning "ecology" is not doing it. First of all, you have to define and classify the human habitats. Only that gives the essential background for the so-called socio-economic studies *àla* Leach. To be in with current etymological fashion is patently not enough.

Until very recently, almost every one in this equatorial country was in one way or another primarily dependent on three things determining the shape of successful living: on the diversely complicated flora/fauna, itself determined largely by a combination of soil/rock and climate (cf. geographical position) in relation to altitude (cf. rainfall, health, etc.). Of these three -- other life forms, geology and climate position -- the prolific evergreen rainforest flora probably exerted the greatest problems in the past, exercising certain uniform pressures right across the region, with many local variants, helpful and obstructive to man.

Appell well observes, in characteristic language, that in this situation "we have cognatic social systems operating in a variety of ecosystems, exhibiting a range of cultural ecologies from hunting and gathering to advanced wet-rice agriculture." But until these ecosystems have themselves been identified, classified in terms of human use and adaptation, no sense can be made of "culture ecologies"; even to the extent of critically evaluating the commonly assumed simplicity and earliness of food gathering through to a supposed final stage with wet-rice. It could even be, for instance, that when so examined the nomadic Punan mode emerged as more ecologically adjusted and biologically effective than some other jungle-control systems in important long-term survival respects?

Bornean animism, the shared theology of nearly all non-Moslems, from wet-ricers to nomadics, was one early prehistoric eco-adjustment, as well as providing an intellectual framework within which the rest of forest life and death could be conceptualized, controllably. The results from this way of looking at the biotope are as ecologically expressive as any equivalent "pagan" cosmology. It goes back at least to Niah cave men and is enriched in the oldest Iban folk-lore, where six key omen-birds each married daughters of Sengalong Burong (Brahminy Kite, and top omen), himself one of six sons of the great Raja Jembu, whose offspring provide the linked higher stratum of the Iban pantheon in creation-and-conflict lore.[8]

When augury codes got too "fixed", quite small movement into an area with different faunal frequencies could quickly put an established ecoculture out of gear, as when many Kayans moved from the Apo Kajan northwest in the Baram lowlands. Another shifting difficulty was to keep in favorable harvest phase with the rain-sun climatic and pest cycle, in a highly erratic equatorial seasonality -- even for fruit-flowering, pig migrations and birds'nesting. The highland Kelabits, in particular difficulties seasonally, solved this with a padi-rhythm based on the accurately observed arrival of four species of migratory bird (wegtail, shrike, hawk and thrush) landing above 3,000 ft. from their sub-arctic breeding grounds. The Kayans adopted a solar azimuth system, the Ibans watched the Pleiades, and so on..., with characteristic minority-diversity.[9]

Such diversity stems, we must always remember, from multiple local fac-

tors operating upon a relatively simple stock. *Homo sapiens* was present in what is now Sarawak, at Niah Caves, at least 100,000 generations ago. And his then physique does not appear to have been greatly different from the "Dayak" of now. This is a salutary thought, when we come to consider cultural evolution and change, as seen simply in the present. Indeed, how can we adequately explain the present if we ignore prehistory? Or ignore **physical** parallels and differences?

However, it was not until the advent of iron that most of the things Sarawakians do to their environment **today** could be done large - scale. Control of rain-forest for grain crops and differently of coastal swamp with stone-tools must have posed fearful headaches. Once controllable time-effectively, the balance of human effort and areal potential quickly, widely changed. These and related great events are reflected in the earlier phases of Iban, Kenyah and Kelabit folk-lore geneology. It is partly against this background that we need to measure and to distinguish "ancient" from "modern", general from "minority" trends inside each properly identified ecosystem as well as across the island (e.g., the Iban, Kayan and "Murut" migrations, all north-westward).

It is against this background, also, that we can well appreciate Vinson Sutlive's vital study of Iban urbanization. Appell, a little suprised, asks what the results indicate in "the nature of Iban social organization" to make it "so unusually adaptive". Iban can (he sees) move into "all sorts of cultural-ecological niches without major cultural distortion". But is that not the story of Sarawak from Niah out and on, far before the Ibans emerged from the Kapuas (c. 400 years ago)? What must impress anyone who has lived even one generation in Sarawak is this versatility and rapid adaptability. It may have begun with the prime battle to live at all in the high forest with stone, bone, and wood technologies. It is expressed, another way, in beautifully arranged, "loving" treatments of the dead dated (accurately) up to 10,000 years ago at Niah—but with many variants. It is manifest in some of the world's finest woodcarving (Ngadju, etc.), folk-singing (Kayan), elaborated independent irrigation (Kelabit), folk-cohesion (Iban), death-rite elaborations (Berawan, Kelabit megalithic), and so on, again; with so much else!

Dr. Sutlive's lucid analysis is, in effect, a fresh, insightful report on a process essential to human survival, let alone success. Craig Lockard's work recalls another, earlier example of the urban aspect among the Malays flowing into Brooke Kuching, itself an end-product of some wide adjustments to the advent to Islam (after 1400 A.D.), a set of events which cut the Melanau-peoples in half and regrouped nearly the whole coastal plain, as well as re-shaping the interior. The emergent, new "Sarawak Malays" devised, in the process and within a few generations, a new form of shifting, slower cycle cultivation, away from grain into tree crops, and away from jungle protein into seafood, with impressive results. The same "people", equally, were able to absorb a huge

bauxite-mining operation at the fish-and-fruit village of Sematan, with little measurable effort.

Bauxite gives low profit margins, so needs to be mined cost - intensively, 24 hours a day. The bull-dozers, lorries, conveyers, chutes and launches installed, suddenly, by the company, beginning in 1957, were extracting over a quarter of a million tons by 1960. Practically the whole work-operation was undertaken by the local Malays -- who had previously barely handled a stray (for fun) bicycle -- now freshly trained on the spot, helped by a sprinkling of Dr. Schneider's Selako from the hills behind. By 1961 – 62, 50 percent of all Sematan villagers' workdays were being spent on intensively mechanized mining. But by 1965 the ore was running out, the workday effort was down to 10 percent. By 1966 the operation was finished. The community returned to careless tranquility.[10]

Both Dr. Grijpstra and Schwenk deal further with aspects of a related socio-economic mobility in these two volumes. The latter's originally conducted upper Iban land study, over some poor terrain, properly concludes that agricultural development has to be defined in terms of **locality** "before programs can be planned, executed or evaluated". Which brings us back to Appell on the unintended and unexpected social costs of **modern** development. They can be surprising. It is doubtful, too, if all of them can be fully foreseen at least with any mono-disciplinary methods, in the future as in the past. This was also behind the earlier described Brooke officers' distrust of basing action on quickie reportage, however academically expert (graduate student scale). Those administrators put acquired feel above statistical fact, intimate experience above verbal definition.

Sarawak has been seeing human change over millenia, although most of it, even recent, has gone unrecorded except in the bare hardware recoverable by archaeology. The pace is clearly accelerating, along with the urge to monitor the processes involved, both for academic and for administro-ameliorative purposes. In the past change, displacement and experiment were worked out by change, displacement and experiment were worked out by intense -- and sometimes intensely dangerous -- ecological biological experiment. The difference now is largely of consciousness and degree. Some of the experiments already conducted or planned seem equally dangerous, including virtual destruction of the whole forest biotape.[11]

The rate of change now appears to be going faster than the rate of socially scientific application, despite stout efforts to maintain a balance. As these efforts are proving inadequate even in more stabilized "developed" societies of the west, that is hardly surprising. But it would be going too far in the other, more old-fashioned direction, to continue much longer lamenting that Sarawak's "ethnographic map is far from filled in" (Appell's 'Synopsis of Sarawak ethnography'). Yes, indeed, this cultural complexity does present "fascinating socio-anthropological problems". But what doesn't? We must not

be misled into thinking we can halt any clocks to enable field work energy to "be directed towards producing full ethnographic descriptions" of special groups in traditional terms. That was still just possible post-Leach. It is no longer so. The boys are learning about Allah or Jesus.... Money has everywhere replaced barter, reciprocity, beads, jars, and generosity.

Without disrespect to existing social science research techniques and achievements, looking back over recent decades in Sarawak, one cannot feel satisfied that these continue to "modernize" widely enough to meet new moods and needs. Nor have they provided, yet, an adequate overall picture of the living human landscape in any systematic sense.

Be that as it may, the next step requires a more serious recognition of the whole context of human (and all) life under these conditions. This has to include an accurate relating of the biotope to daily behavior, along with interdisciplinary classification codes recognizing all-round ideological **and** biological influences. The recent use of anthropologists Morris and Sather in the study for the Miri-Bintulu development project is a first step in that direction. Another was the Landbouw Hogeschool mission from Wageningen, Holland, which spent some months on a regional planning study of the First Division, Sarawak (8 volumes). Grijpstra was a member of this team, and it is relevant here that in his contribution to the present symposium he pays first tribute to his countryman, Dr. J.P. Andriesse (see his paragraph two; also his footnote one and references).

Andriesse, now at the Royal Tropical Institute in Amsterdam, was a government soil scientist in Sarawak, one of several non-social scientists who have given the state, along with Brunei, a remarkable international reputation for original, widely recognized research in soil science and palynology, peats and young land, Quaternary geology, forest ecology, insect pests of rice, ecological studies of birds, reptiles, fishes and insects.[12] Social scientists mostly continue unaware of such illuminating and sometimes indispensable sources of insight.

What the Oxford University Expedition tried to do in the Baram in 1932 for zoology and botany might well be modified for other parts of a now far more widely accessible terrain in 1976. Joint, long-term, deep study operations by ecologists and other natural scientists alongside social scientists might prove one way out of the frustations here indicated.

Behind all, of course, persists the crying need for field work by many more trained Sarawakians, like Benedict Sandin, who come back into their own societies and environments with a quarter century start on the expatriates. None contribute to these two volumes, alas.

Notes

1. "Borneo Death" in *Bijdragen tot de taal - land en Volkenkunde* (Leiden) 118, 1962(1):1 – 41. Appell's generous bibliography overlooks this relevant

preview to his overview as printed here.

2. The *Sarawak Museum Journal* Special Issue is edited by Dr. Jerome Rousseau of McGill University, who has kindly provided details and his own sensible Introduction. The term "Central" Borneo is there stretched to include Sather on the Kadayans (most coastal of folk) and regrettably excludes anything on the remoter central areas where you have to walk to see.
3. The only deliberately "generalizing" paper in this double-issue is Al Hudson's attempt to classify Sarawakians linguistically (see note 6). A brave effort at "multi-racial" comparison and classification at another level has been that of Dr. Karl Schmidt, lately head of the Kucing Mental Hospital (discussed by Appell). Another exercise, completed in 1974, is the extension by Dr. J.B. Avé (Leiden), himself a Sumatran, of his Kalimantan studies on upriver rice agriculture by taking comparative samples in Sarawak, Sabah and Brunei.
4. These five studies were by Derek Freeman on the Balleh Iban, William Geddes on the Tapuh Land Dayaks, Stephen Morris on the sub-coastal Melanaus, T'ien Ju-K'ang on the Sarawak Chinese (he was regrettably expelled for political reasons before full completion), and last – as well as least -- the present reviewer's labored look at Sarawak's Malays (see note 10).
5. Among postwar senior officers held over from Brooke times were such outstanding men as Gordon Aikman and John Barcroft (both presently Chief Secretary), John Fisher, W.S. Buck, W.N.P. Ditmas, Richard Outram, A.R. Griffin and Dennis White (now Sir Dennis and the only one alive?). A younger generation of dedicated officers did not reach positions of any power until later. Many of these, influenced by the *Sarawak Museum Journal* and *Sarawak Gazette*, published useful studies, including F.Drake, I.A.N. Urquhart, A.J. Richards, Gordon Roberts, D.C. Walker, J.F. Drake-Brockman, C.B. Wilson, E. White, and Geoffrey Barnes -- as had Aikman and Buck prewar. There was also, of course, major ecological input from forestry, geology, soil and palynology specialists working in sectors essential to an understanding of the biotope (see further below). I emphasize these because Appell, like most outside analysts, underestimates the local contribution while by inference praising even some of the most superficial visitor reports. (He is better on resident missionaries). See also the joint volume, *The Peoples of Sarawak* (Kuching 1959), compiled by some of the above and as yet not replaced as an easy work of reference -- though long out of print.
6. Hudson modestly calls his an "interim" report, and introduces it with suitable honest qualifications. But at many points in his text, as it stands, his tentative conclusions or suggestions make the non-linguist feel, somehow uncomfortably, that he is not writing about ordinary people talking as a

(small) part of living, but rather of some verbal essence abstracted from long-house reality (e.g., his Table 4). Nor can I follow the reasoning behind some of his statements on PAN forms. "Ideally, then, the entry of new data into the field should require a complete reevaluation of the total system under reconstructions," he writes for instance. Such a preposition reads more like scientology than a scientific approach to theory-data-checking relationships. And so on. The re-introduction and elevation of the term Idahan (following Appell and Prentice) is another likely source of confusion, as indeed are many of the actual "ethnis terms" adopted in this type of mono - disciplinary exercise.

7. Appell seems to favor (his footnote 8) Crain's way of reclassifying the so-called "Southern Murut" (cf. LeBar's even more doubtful Kalabitic Murut). One who has spent years among these hill people in Sarawak, Sabah and Kalimantan finds such classifications no advance on older approaches and inadequate in any real overview (cf., the idiocies, started by Rodney Needham, on Punan cf. Penan discussed further in *Borneo Research Bulletin*, March 1975).
8. See also Richard Schwenk in Volume II following. Detailed geneologies are discussed in *Sarawak Museum Journal*, Special Monograph 1966: 259 – 78, by B. Sandin and T.H.
9. Calendar and other bird-human relationships are discussed in special chapters contributed by D. Freeman and this writer to B.E. Smythies, *The Birds of Borneo*, Edinburgh 1968 (2nd Edition). For an outside ornithological evaluation of this Bornean bird-watching see Austin L. Rand, *Ornithology -- an Introduction*, New York 1967, and paperback (Penguin) 1974, chapter 24. In this connection it is difficult to believe that Ian Clayre (Publication No. 3 here) has sufficiently understood the zoological background in his interesting discussion of Melanau faunal categories. He seems to have had bad information (or misunderstood it) on for example the extraordinary *swimming* "dog-tailed" tree - shrew named for a bird? Further analysis would be welcome, to sort out *yeti* from *Tupaia*.
10. For the bauxite story see *The Malays of south-west Sarawak before Malaysia*, London 1969, chapter N, which ends: "It will be fascinating to follow up and see what the future holds for these adaptable, though recently somewhat confused, people".
11. Sarawak has been showing considerable care in redevelopment (still faintly echoing traditional Brookean restraints?). Compulsory mass-displacements of populations (unknown in colonial or rajah times) are now fully accepted over the border in Kalimantan, largely to assist major destruction of their traditional environments for short-term profit. The *Indonesian Observer* of 9 September 1974 carried a long official news report from the Director General of Forestry, issued after a meeting with President Soeharto on plans "to resettle isolated tribes" to the extent of "about

one million". They are to be moved to downriver areas and "trained in farming". The first group would be in East Kalimantan at a cost of Rupias 1.7 million, all contributed "by forestry companies working in the area". Thus the tribes "will no longer inflict damage on the woodland".

Outstanding published work on the past two decades in these fields includes non-relevant Sarawak studies by P.W. Richards, Peter Ashton, John Corner and E. Brunig (plants), J.R. Anderson, F. Muller (peats and pollens), N.S. Haile, G.E. Wilford, D. Hooijer and Don Brothwell (Quaternary), G. Rothschild, M. Fogden, R. Inger, and Lord Medway (animals). Some of these spent many years on their field work. The present writer may add in conclusion that he writes about ecology and related biological matters with moderate confidence, since he started his adult life as ecologist and accompanied four significant scientific expeditions in that capacity (Arctic, St. Kilda, New Hebrides for two years, and Sarawak 1932), while his first published work was in zoology, including papers co-authored with David Lack, V.C. Wynne-Edwards, and J.R. Baker (all since Fellows of the Royal Society); and he worked closely with one of ecology's founders, C.S. Elton F.R.S. at Oxford, as well as sharing a tent with him on the aforesaid Oxford University Arctic Expedition of 1930.

NOTES ON THE CONTRIBUTORS

A.B. HUDSON is a cultural anthropologist at the University of Massachusetts, Amherst, who is currently engaged in analysis of the relationships of Bornean languages. Together with his wife Judith he has worked among the Ma'anyan of central Kalimantan.

ASMAH HAJI OMAR is an Associate Professor in the Department of Malay Studies at the University of Malaya, Kuala Lumpur. Her field of specialization is linguistics, and her field work has included the Malay, Iban, Bajau and Kentakbong languages.

IAIN F.C.S. CLAYRE became interested in the languages and cultures of the Far East during military service in Malaya in 1952-53. He worked as a civil engineer, missionary, and Senior Research Officer in Linguistics at the London School of Economics. His doctoral dissertation was on the Grammar of Melanau. He currently is responsible for Overseas Development of a large engineering concern.

BOUWE GERARD GRIJPSTRA is a research fellow with the Department of Rural Sociology of the Tropics and Subtropics, Agricultural University, Wageningen, the Netherlands, which is engaged in studies on the mobilization of and solidarity between rural populations in the Third World. His field work was among the Bidayuh (Land Dayak) of Sarawak during 1971-72.

RICHARD SCHWENK is an agricultural missionary of the United Methodist Church, under whose auspices he has worked in the Philippines as well as Sarawak. He received his doctorate from Cornell University.

WILLIAM M. SCHNEIDER is a cultural anthropologist with special interests in the social organization, languages and cultures of Insular Southeast Asia. In

addition to his field work among the Selako Dayaks of Sarawak, he has conducted research in the American legal system. At present, he is an Assistant Professor in the Department of Anthropology, University of Arkansas, Fayetteville.

RICHARD C. FIDLER is a cultural anthropologist with special interests in the areas of social structure and kinship, "plural" (multi-cultural) societies, Southeast Asia, and the Overseas Chinese. His dissertation, *Kanowit: An Overseas Chinese Community in Borneo,* is based upon fifteen months of field research in Kanowit, Sarawak, during 1970-71.

TOM HARRISSON, D.S.O., O.B.E., was Government Ethnologist and Curator of the Museum of Sarawak from 1947 to 1966. A true polymath, Harrisson was "anthropologist, war-time hero, explorer, ornithologist, archaeologist, pioneer and practitioner of social observation -- ...A truly remarkable man" (*London Times,* 21 January 1976). *A Checklist of Tom Harrisson* is available from Vinson Sutlive, who is also Editor of the *Borneo Research Bulletin.*