

## INFORMATION FOR AUTHORS

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

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

Bibliographic Section. A bibliography of recent publications will appear in each issue of the Bulletin, and, consequently, reprints or other notices of recent publications would be gratefully received by the Editor.

Other Items: Personal news, brief summaries of research activities, recent publications, and other brief items will appear without the source specifically indicated. The Editor urges those contributing such news items to send them in the form and style in which the contributor wishes them to appear rather than leaving this to the discretion of the Editor.

All contributions should be sent to the Editor, Borneo Research Bulletin, Phillips, Maine 04966, U.S.A.

## STYLE FOR CONTRIBUTIONS

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

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

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NOTES FROM THE EDITOR

Contributions Received. Without the many individual contributions made, it would be impossible to continue publishing the BRB. I would like to express my deepest appreciation and thanks to the following individuals who have made significant contributions since the last issue of the BRB: D. E. Brown; J. Cobbe; W. L. Collier; C. Crisswell; O. Doering; F. Dunn; Georgia-Pacific Corp.; B. G. Grijpstra; R. Pringle; B. W. Sandilands; W. M. Schneider; M. Singarimbun.

Replies to Problems Raised by the Editor. In the last issue of the BRB the Editor raised several problems with regard to the publication of the BRB, particularly with regard to finding funds to continue publication, and asked for guidance from the Fellows and readers. I would like to express my deep appreciation to those who have taken the time and thought to write me to offer their support and give helpful suggestions: F. L. Dunn; J. D. Freeman; Lord Medway; G. Rixhon; S. Morris; J. Rousseau; B. M. Sandilands; W. Schneider; J. O. Sutter; E. M. Unlenbeck.

New Publication Schedule. This issue is the last one that will be published on the old June and December schedule. Starting with Volume 5, 1973, the BRB will be published in April and September each year. This change was necessitated by a number of factors, but particularly because of the large number of requests from institutional subscribers as to the status of their subscription. The delay time of six months from the start of the year to the publication of the first issue for that year apparently was causing some confusion in these quarters.

THE BORNEO RESEARCH COUNCIL

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

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

(Continued on page 63)

RESEARCH NOTES

A NOTE ON SELAKO SOCIAL ORGANIZATION

William M. Schneider  
University of Arkansas

The social organization of villages and long-house communities was the focus of research carried out among the Selako Dayaks of Lundu District in the First Division of Sarawak. The field study involved sixteen months of actual residence among the Selako carried out over a period of twenty-one months from the end of October, 1969, until mid-July, 1971. Some research was conducted at the Sarawak Museum in Kuching.\* The period of reference in the following description is prior to the Japanese Occupation which commenced in 1942 unless otherwise stated. Most of the social structure presented remains important today.

Selako villages are composed of from one to three large long-houses (five to twenty doors), several smaller long-houses and a number of single family houses. Residence in single-family houses is not simply a recent development evidencing the decay of the long-house as a social institution. It is rather a recurring part of the domestic and political cycle of the Selako and has been such for at least the past century. From the perspective of the individual household a single-family dwelling is a temporary expedient, a hiatus between the disintegration of an old long-house and the building of a new dwelling onto a new long-house.

Selako have four types of groups which serve important social and ritual functions: the biik family, a corporate group represented at any one point in time by the household; corporate ambilineages which have rights in some dry rice land; the long-house which during its life span of a generation or so performs important social and ritual functions; and the village, a corporate unit carrying out many important functions. The bilateral kindred provides a pool of persons from which relatively impermanent task groups are constantly being drawn.

The biik family (see Freeman 1970 for a cognate group among the Iban) is conceptualized by Selako as a three-generation stem family, holding rights in items of personal property such as jars, special strains of rice, jewelry and fruit trees, as well as household ritual passed in the female line. Marital residence is in theory uxorilocal, and thus the biik family is theoretically matrilineal. However, virilocal marriage residence is not uncommon among politically active families. Only one married child remains permanently a member of the biik family into which he or she is born, and thus new biik families are continually being created. The biik family is the subsistence unit of Selako society and also bears most of the responsibility for child rearing.

\* This research was sponsored by the University of North Carolina at Chapel Hill and the Sarawak Museum with funding provided by the National Science Foundation, U.S.A.

A particular long-house is best conceived from the perspective of the biik family (a "perpetual" unit) as a temporary grouping of biik families linked by ties of affinity and consanguinity in this generation. However, temporary as the long-house may be, it performs many vital community functions. Particular long-houses are ephemeral, but the long-house institution itself is central to the structure of the society.

A long-house is a political and ritual unit as well as a residential unit. It also serves some economic functions. Long-houses coalesce around a group of closely related households in the process of acquiring political power and office. This coalescence is a visible evidence and necessary part of the acquisition of village power and office. Each long-house has its tuha rumah, "house elder," who settles internal problems, represents the long-house in village councils and is the local ritual authority.

The identity of particular long-houses as social units is explicitly marked in ritual terms every time a domestic pig is killed, as well as in the organization and celebration of certain festivals. Calendrical festivals are celebrated by individual households, but all the households within a long-house celebrate a given feast on the same day, a day explicitly scheduled to be different from the feast day of other long-houses in the village. Much the same is true of life-cycle festivals. Thus, in 1970, all the households (three) within a single long-house celebrating the ear-piercings of pre-pubescent girls celebrated on the same day. Other ear-piercings were carried out on a different date in another long-house in the same village.

Some activities to do with the cultivation of rice are customarily carried out by cooperative labor units drawn from a number of different households. These units are usually drawn from within a single long-house.

Only a few Selako households belong to an effective land-holding ambilineage, but this institution is of economic and political importance for all. All the descendants of the person who first clears rice land own in common prior use rights in that land, provided that the land is not otherwise disposed of by the original clearer, or divided by mutual agreement among his heirs. In most cases the land is split up. A few families, however, have made a conscious effort over several generations to clear a great deal of new land and to keep this land intact as an undivided resource. This land is thus available to all the descendants of the original clearers, and, more importantly for political purposes, provides a pool of secondary jungle (much easier to clear than primary or virgin forest) which others may plant with the permission of those who control the land, subject to the prior rights of actual descendants of the clearer. Control, or rights of disposition of the land, rests in the senior male in the senior line of descent from the original clearer. It is this individual who increases the pool of land every generation by clearing new land, control over which will eventually pass to his eldest son together with the other ambilineage lands.

The result of this process is to create an hereditary, political aristocracy of sorts. The key individual in the ambilineage is enabled to build up a great deal of social credit in the village

which, if he is otherwise qualified by personality, results in political power and the acquisition of office. This is by no means an economic aristocracy as there is little distinction in life styles among Selako.

The Selako village is a corporate unit which carries out many political, ritual, and today, economic functions. Villages exercise exclusive rights to a bounded area of virgin and cleared land. Certain lands (the graveyard, other ritual sites, and paths) are held by the village rather than individuals, households or ambilineages. The wet rice land and its irrigation works which have recently been developed with Malaysian government assistance, are owned by a corporation which in membership and leadership is virtually identical with the village (this last refers to Kampong Pueh). Selako interact with the Sarawak and Malaysian governments primarily through the village and its officers.

There are eight ritually defined village-wide offices in a village with a full complement of offices. The binua or internal chief is ritually defined as the highest officer. He is charged with the management of all village activities, organization and direction of village cooperative labor projects, the sponsorship of certain important rituals, and is, in a very limited sense, the village executive. The number two post is the tuha kampo'ng, charged with the spiritual well-being of the village. He is the chief judicial officer. The number three position is the tuha baiatn who is the primary actor and the director in the most important Selako curing, funerary and political rite, a performance requiring the participation of most of the village for a period of thirty-six hours and involving a very dangerous trip to the spirit world by the tuha baiatn. Tuha laut conducts the relations of the village to the State Government and its representatives. This officer is the government tua kampong and in actual fact is the senior officer in the village.

The four remaining village offices are primarily of ritual significance. The bidan is the midwife. Tukang sunat is the ritual circumcisor (actually superincisor). Tukang tampa' is the blacksmith and pangarah uma conducts rituals to do with the health of the rice fields.

There are approximately twenty Selako villages in Lundu District and in the contiguous area of West Kalimantan (village defined as a residential unit with tuha kampo'ng). Each Village comprises several sub-units of long-houses or their increasingly common modern equivalent, hamlets, and a number of scattered single-family houses. The Sarawak Selako population numbered 4207 according to the 1970 government census. The number of Indonesian Selako is probably on the same order.

The Selako are split into two "adat groups" with small ritual but large political differences. Each village comprises members of both groups but is traditionally controlled by one. These are of small significance today but in mythic times probably represented the political units in a tenuous confederacy (there were at one time nine of these groups).

In recent years changes have occurred in the subsistence system and the external political context which have had and will continue to have important effects on Selako society. The change from dry rice to cultivation of irrigated wet rice negates the

importance of the ambilineage. Cash cropping is effecting the quality and intensity of certain social ties: the household as an economic unit appears to be increasing in importance and the extra-household links embodied in traditional cooperative labor and in long-house groupings may be decreasing in importance. Hamlets of single family dwellings are replacing long-houses. Ties to state and national government are also exerting structural pressure at the village level. New social groups and roles have appeared: committees to handle the irrigated rice scheme and other agricultural cooperatives under government sponsorship; village-wide cooperative labor battalions; committee chairmen; school teachers; policemen. Simultaneously some traditional roles and groups are being drained of their importance. The tuha baiatn has competition from the government dresser. Important judicial functions are handled by government officials rather than within the village. School teachers compete with parents for influence over children.

Bibliography: Freeman, Derek, 1970, Report on the Iban, London, Athlone Press.

BAJAU COMMUNITIES IN SOUTHEASTERN SULAWESI, INDONESIA

H. Arlo Nimmo  
California State University, Hayward

C. A. Sather reports in the Borneo Research Bulletin (June, 1971) the existence of Bajau villages in the Lesser Sunda Islands, specifically the island of Roti. This note is intended to add additional information on Bajau communities of that general area.

During my second field trip among the Bajau of southern Sulu (1965-67), I wrote to Sister M. Pauline Benden, of the Medical Mission Sisters at Makassar, to inquire about the possible existence of boat-dwelling people in that part of Sulawesi. She kindly extended the inquiry to students in her hospital classes and learned that boat-dwelling peoples, known locally as Orang Badjo, are found off the southeastern coast of Sulawesi near the islands of Butung, Bone, Salajar, and Muna. These boat-dwellers are primarily fishermen who trade their fish for the agricultural produce of the land-dwelling peoples. They speak a language distinct from that of the land-dwellers, but they are frequently bilingual since the land languages are the lingua franca in the areas where they are found. They are generally taller and bigger than the neighboring Sulawesi peoples, have darker skin (probably sun-darkened), and their hair is frequently "yellow or a bit red" (probably sun-bleached). Marriage is usually endogamous, and they have low status among the land-dwellers. Virtually all of this brief description also pertains to the boat-dwelling Bajau of southern Sulu.

Sister Benden reports two local stories about the Bajau which are also widespread in southern Sulu. The first claims that if the boat-dwellers go to land, they become ill because they are accustomed to living only on the sea. The second maintains that as soon as a Bajau infant is born, it is thrown into the sea by its parents. If the child floats, it is rescued; if the child sinks, it is allowed to drown since it would otherwise

bring misfortune to the family. Both stories are untrue in Sulu, and I suspect also in Sulawesi. A local legend recounted by Sister Benden claims that all the Bajau once lived at a place called Badjoe near Bone, but because of a war in that area they fled along the Sulawesi coasts where they are presently found. Their name still reflects their place of origin.

These Bajau communities are considerably north of those reported by Sather, but additional knowledge of the ethnography of the intervening islands may reveal further links in the chain of Bajau distribution throughout insular Southeast Asia.

TAMUS IN SABAH

Josephine Boenisch Burrough

Sabah has an interesting indigenous system of periodic markets, or tamus, held at more or less regular intervals, particularly along the west coast. Very little work has been done on the history and modern aspects of these tamus, and I am currently engaged in a research project which involves producing a map showing where tamus are held today and describing the different types of tamu that are found in Sabah. In addition, with the help of local school children I have conducted two surveys of the vendors at Tuaran and Kota Belud tamus. The data obtained have so far provided interesting information on the range of goods sold, the ethnic groups selling at the tamu, the distance the vendors travel to the tamu, how often they come to sell and, for the Tuaran sample, the mode of transport used to reach the tamu, the day on which the vendor reaches the tamu, and the source of the goods sold.

Literature concerning tamus

References to tamus in the general literature on North Borneo and Sabah are few and far between and a search in the State Central Archives has not produced any additional material. Of the references cited in the attached bibliography, the works by Evans, Rutter, and Glyn Jones have proved the most useful. Both Evans (1923:129-133) and Rutter (1929:132-134) give valuable information about the tamus around Tuaran and Kota Belud, while Glyn Jones (1953:58-63) has a good account of the tamus around Penampang.

Mapping the present day tamus

At the time of writing, I am still awaiting information about tamus in the Ranau and Bandau Districts. However, the information obtained so far shows an interesting pattern. Tamus are most common on the west coast, particularly in Kota Belud District which has 22 tamus. There are few tamus in the interior and none on the east coast.

Types of tamus

A. Traditional Tamus:

1. Dusun-Bajau tamus. These traditional tamus originated in the zone of culture contact between the hill people (Dusun) and



coastal tribes (Bajau, Illanun, Suluk). The pagan Dusun traded their tobacco, rotan, rice, poultry, and fruits for the fish, powdered shells (used when chewing betel nut), salt and woven headcloths of the Islamic Bajau and Illanun. Trading took place on "neutral" ground. The neutrality of the tamu ground was established during an inaugural ceremony at which an oath-stone, batu sumpah\*, was erected and oaths, guaranteeing peaceful trading, were sworn by the tribal chiefs and sealed with the blood of a sacrifice (usually a buffalo). The biggest of these Dusun-Bajau tamus was formerly held at Tamu Darat (8 miles from Kota Belud on the banks of the Tempassuk). Other tamus of this type were held at Inobong, Berunggis and Timbang and the Tuaran and Kota Belud tamus are contemporary examples.

2. Tamus of the Dusun-speaking peoples. A second type of traditional tamu evolved further inland, where Dusun-speaking peoples from different kampongs met to trade. The hill Dusuns who travelled down to the coast to trade at the lowland Dusun-Bajau tamus would return with coastal produce which they would then trade with other hill Dusuns. Rutter (1929:134) gives as an example of this type of tamu the one at Gerunting, which used to be held every 30 days on the banks of the Koriyau River. Contemporary examples of exclusively Dusun tamus are held at Kiulu and Mile 28, Penampang-Sinsuron Road.

It is difficult to say which of the two types of tamu described above is the older. As tamus are found wherever there are Dusuns but not, wherever there are Bajau (i.e. not at all on the east coast), it seems reasonable to hypothesize that this system of markets originated among the Dusun-speaking peoples, and indeed the present day distribution of tamus in Sabah coincides closely with the distribution of Dusuns. However, it is obvious that tamus flourished best in areas of Dusun-coastal tribe contact. There were few (if any) tamus held in Murut country. In 1922 Rutter wrote: "strangely enough no tamus are ever held by the Muruts" (p. 353), but in his later book (1929) he quotes a Mr. Lease as saying that tamus were held at one time in the interior, especially around Galumbang. To date I have been unable to verify this, nor have I been able to locate Galumbang.

Many of the traditional tamus survive today, but with modifications. In the past, tamus usually seem to have been held at intervals of 5, 10, 20 or 30 days (e.g. Sugud, Inobong, Tamu Darat and Geruntung respectively)\*\* Regular participants in these tamus kept track of the number of days between each

\* Batu sumpah were also erected to mark meeting places on neutral ground in parts of the country where tamus were not traditional, e.g. Sapulot. (See Harrisson and Harrisson 1971:131-2.)

\*\* Evans (1923:130) noted that "up country markets such as Tamu Darat are held once in twenty days in view of the fact that some Indonesians have a week of five days" and "the markets in the coastal regions are held every seven days, for the Mohammedans, like the Christians, have a week of that number of days." However, this is not strictly true, as certain coastal tamus (e.g. Inanam, Menggatal) are still held every ten days.

tamu by using a tembagos (Rutter calls it a tembuku), which is a rotan tally with as many knots tied in it as there were days between successive tamus. Most of the tamus held in modern Sabah take place at more regular calendar intervals (e.g. weekly, or once a month on a particular day), and this suggests that there has been an effort to bring the tamu dates in line with the European calendar. However, a much more important change in the traditional tamus has been the infiltration by Chinese traders. Chinese probably began to attend the Dusun-Bajau tamus quite early on. Evans mentions the Chinese traders at Tamu Timbong obtaining tobacco from the Ranau Dusuns and eventually exporting it to Brunei. Now Chinese vendors are a familiar feature at most lowland tamus and at some of those further inland which are easily accessible (e.g. Kundasang, Simpangan, Apin<sup>2</sup>).

Over the years, certain tamus became associated with other activities such as cock-fighting, horse racing (now no longer a feature at Tuaran tamu), sessions of the Native Courts, and the regular visits of Government dressers. Most of these subsidiary activities have now lapsed, though cock-fighting holds its own, and some tamus which have died out as trading events are still commemorated as regular cock-fighting sessions, e.g. Berunggis, Putatan.

#### B. Government-sponsored Tamus:

1. Tamus introduced into new areas. In the last thirty years or so, tamus have been introduced into areas where these markets are not indigenous, e.g. Labuan, Lahad Datu, Bingkor (Keningau District). These have met with varying success. A significant proportion of vendors at these newly-established tamus are Chinese selling manufactured goods.

2. Tamu Besar Tahunan. This type of tamu is held annually in most Districts under the sponsorship of the District Officer with funds provided by the District Council. It can best be described as a cross between an agricultural fair and a cultural festival. Various exhibitions are organized by local and government bodies; there are competitions involving local dances, skill in blow-pipe shooting or buffalo riding, sports, and many other events.

#### The tamu surveys at Tuaran and Kota Belud

At Tuaran a nine-question questionnaire was used and 230 vendors (approximately 30% of the vendors at the tamu) were interviewed on 27th August 1972. The process of interviewing was hampered because although there is an official tamu ground at Tuaran, most vendors prefer to sell in the market forecourt, and there is therefore a drift of people towards the center of town as the morning wears on. However, the sample interviewed does seem to be representative. A preliminary study of some of the data has revealed that Dusun formed the largest groups of vendors (49%), while about 29% were Bajau, and 18% were Chinese. Most of the vendors (72%) were women. Not surprisingly, the fish and shellfish vendors were almost exclusively Bajau. Fruit and vegetable vendors (the largest group of vendors, forming 85% of the sample) were predominantly Dusun (67%) with a significant proportion of Chinese (27%) and only a few Bajau. In most of the categories of goods sold, women predominated as vendors, except in the

selling of tobacco, poultry, and medicine (the latter being sold by itinerant medicine men).

The Kota Belud tamu is a much larger weekly tamu, and on the day of the survey (10th September 1972) there were about 1,000 people selling goods. The tamu is held about one mile from the shop-houses, and this has encouraged people from the town to run refreshment stalls and stalls stocked with shop goods at the tamu every week.

A sample of 716 vendors was interviewed, using a shorter six-question questionnaire. Of this sample, 46% were Bajau, 26% were Dusun, 16% were Chinese, and 9% were Illanun. As at Tuaran, female vendors predominated (62% of the total sample). The variety of goods sold at Kota Belud was much greater than at Tuaran. The largest category comprised fruit and vegetable vendors (15%), but also significant were sellers of tobacco and cigarette wrappers (11%), cakes and biscuits (10%), and betel nuts with their accoutrements (i.e. slaked lime and leaf wrapper--9%). Cakes were sold almost exclusively by Bajau women, and although most of the tobacco and cigarette wrapper sellers were Dusun, about 20% were Bajau. The Chinese (who came from as far away as Tuaran and Kota Kinabalu District) were selling clothing and materials and also general goods, and with the Bajau, were responsible for the refreshment stalls. Adjacent to the tamu ground is a buffalo mart. Not surprisingly, all the buffalo vendors were male, the majority being Dusun and the remainder Illanun and Bajau. One of the most interesting groups at the tamu was comprised of itinerant Pakistani men (there were 10 at the tamu on the day of the survey) selling jewelry and trinkets.

A considerable amount of more detailed analysis remains to be done on other data from the Tuaran and Kota Belud tamu surveys, and I hope to publish my findings in the near future.

Bibliography: Alliston, Cyril, 1961, In the Shadow of Kinabalu, London; Cook, Oscar, 1924, Borneo: The Stealer of Hearts, London; Evans, I. H. N., 1923, Studies in Religion, Folk Lore and Customs in British North Borneo and the Malay Peninsula, Cambridge; Glyn-Jones, Monica, 1953, The Dusun of the Penampang Plains in North Borneo, mimeographed, London; Harrisson, Tom and Harrisson, Barbara, 1971, The Prehistory of Sabah, Sabah Society Journal Monograph Vol. IV; Majimban, N. C., 1962, Inanam Tamu, Sabah Society Journal No. 3:15; Rutter, Owen, 1922, British North Borneo, London; and Rutter, Owen, 1929, The Pagans of North Borneo, London.

THE BORNEO ORANG-UTAN

David Agee Horr.  
Brandeis University

The orang-utan has been the most enigmatic of the apes. Despite our long knowledge of this animal's existence and its large size and spectacular appearance, very little has been known of its behavior and social organization in the wild.

Between September, 1967, and November, 1969, my wife and I undertook the first long-term study of wild orang-utans in the Segaliud-Lokan Forest Reserve in Sabah. Our overall study site was some 8 square miles of primary jungle on the Lokan River near Pintasin. This study was funded by the National Institutes of Mental Health and was done in conjunction with the Game Branch of the Sabah Forest Department. Over 1,200 hours of observation were made on some 27 orang-utans, but due to the dispersed nature of these animals, most work was done on a few animals in a 1 1/2 square mile area.

Following this initial study, the project was relocated in the Kutai Reserve in Eastern Kalimantan, Indonesian Borneo, by Mr. and Mrs. Peter S. Rodman, where they conducted a study of the synecology of all higher primate species in lowland Borneo rain forest. I spent three months in the summer of 1971 there, and observations on orangs in the Kutai confirm the findings of the Sabah study.

General Behavior Pattern. Orang-utans are primarily creatures of the lower jungle canopy. Although they do climb high in the trees, most of their time is spent between 20 and 60 feet off the ground where there are a lot of continuous tree crowns. This is not only the part of the forest canopy most abundant in food, but travel from tree to tree is easiest here where trees are small and close together.

We also found that orang-utans spend a surprising amount of time on the ground. Since their feet are so much like hands, it had been thought that orangs never came to the ground. In fact, they often come to the ground for water and to eat a wide variety of foods. I have seen them come to the ground and walk for some distance when there were breaks in the forest canopy, and when orangs really want to get away from humans, they come to the ground and run away into the undergrowth or into a swamp. This latter happened to us several times--though at first I did not believe these reports myself.

Each night, wild orangs make new nests to sleep in. Although juveniles make their own nests, they like to sleep in their mother's nest, and we have seen huge fights between mothers and juveniles over the issue of whether the juvenile would be permitted to sleep with its mother. This nest construction is very important, partly because it allows these large animals to live continuously in the trees, but also because it gives young infants a place to leave their mothers and move around without constantly clinging to her body.

The typical orang-utan day is outwardly relaxed. Orangs may get up early, but often it is 8 or 9 A.M. before the older ones leave the nest. Breakfast is first on the agenda, then a period of rest around mid-day. In the afternoon orangs either return to eating what they were feeding on in the morning, or they begin a slow amble through the canopy, snacking as they go. A leaf here, a flower there, perhaps a few termites or some bamboo shoots, and by evening they normally have settled into some larger food source, either a tree in fruit or perhaps some bark which they gnaw off the tree limbs like corn-on-the-cob. As dusk falls, a nest is built, though juvenile orangs may continue to feed after sundown. Usually orangs sleep throughout the night, though in some instances they have been

observed to move some distance through the trees before making a new nest and bedding down. Although adult males and adult females may form consort pairs for several days during breeding, adult animals apparently never occupy the same nest.

Social Behavior and Social Organization. Orang-utans do not live in large social troops as do most other higher primates. Their semi-solitary existence has often been described (Carpenter, 1938; Schaller, 1964; Harrisson, 1962; Davenport 1967; and others), but the true nature of their social organization has never been fully understood largely because orang-utans are seldom found and are difficult to follow in the jungle.

From the Sabah study it has been possible to derive a picture of the nature of normal orang-utan social organization and behavior in the wild as well as a possible explanation for their rather unique social system.

Population Units. Orang-utans are found in three kinds of basic units which usually forage independently in the jungle. (1) The only long-term social unit is the adult female and her dependent children. As many as two offspring may forage with their mother, and slightly older offspring may remain near her. These female-offspring units live in more or less permanent areas of about 1/4 square mile in size. (2) Adult males forage as solitary individuals over a much larger area, perhaps as much as two miles or more. (3) Juveniles of both sexes forage with increasing independence of their mothers, probably starting in their third year. Although this is merely a transition stage to adult patterns, nonetheless they do form independent population units.

Not only do orangs move about in these small, isolated units, but contacts between these groups are infrequent. When orangs do meet, very often they seem to ignore each other, and contacts between orang-utan units usually last from a few minutes to only a day or so.

Life Cycle. For the first year of life, orang infants cling to their mother's bodies throughout the day, leaving her only when in sleeping nests or when she is resting in a large tree crotch. By the end of the second year, young orangs are taking solid food and moving away from the female for increasing periods of time. Infants of this age are beginning to copy their mother's behavior patterns, and for example, may wave tiny twigs at an observer to threaten him. In their third year, young orangs are spending a lot of time away from their mothers and can make their own sleeping nests though they may still prefer sleeping with their mothers.

Juvenile females stay in the vicinity of their mothers for several years. They probably first breed about age 7 years and at that time they set up their own mother-offspring unit in a conservative range, perhaps overlapping that of their mother.

Juvenile males apparently range further away from their mothers at an early age, since we find solitary juvenile males in the jungle but seldom any near the adult mothers except for brief encounters.

Adult males and females assume the ranging pattern described earlier, though old adult males abandon the wide ranging pattern and live in much smaller areas. These also spend increasing times on the ground as they lose the agility required to keep their large bulk in the trees.

Basis of Orang-Utan Social Organization. What might produce this unusual isolated mode of existence in orang-utans? It is probably largely due to the character of their jungle habitat and to their breeding pattern. Orang-utans are largely vegetarian. The nutritionally important parts of their diet are fruits, but orangs eat a great amount of leaves, inner bark, and bamboo shoots, as well as orchids, termites and other insects, and even dirt from termite mounds. No direct evidence of egg or meat eating was seen in the wild. Thus some species of plant is in fruit in nearly any month, but usually there are no great quantities of fruit available at any given time. The other diet items are everywhere available throughout the year. Since orang-utans are large animals, they can soon consume most of the fruit in a particular place, and bark and leaves probably do not have all of the nutrition required for survival.

Another important aspect is the absence of any serious natural predators for orang-utans. Although clouded leopards might prey on isolated juveniles, no predators (except man) are a major threat to adult orangs--even females with babies.

In view of the above, orang social organization might easily be explained as follows: In order not to overload the food supply, orangs disperse themselves in the jungles. Females carrying infants or tending young juveniles can best survive if they don't have to move far. Young orangs could also best learn the jungle in a restricted, familiar area. Apparently 1/4 square mile can support a female with one or two dependents for an indefinite period of time. Adult males are unencumbered by young and can more easily move over wider areas. This means that they compete with females for food only for short periods of time, and thus they do not overload her food supply and force her to move over wider areas. Since there is no predator threat, males do not serve any function for females other than reproduction.

If orangs formed large groups, they would have to move over large areas to get enough food. In fact, MacKinnon found just such a situation in the Segama (1971), where orangs may have been crowded together due to logging activities.

The other factor which contributes to orang dispersal is their breeding pattern. Orang-utan females breed only once every 2 1/2 to 3 years. If a male is to maximize his breeding potential, he is best advised to travel over as wide an area as possible so that he will have the greatest chance of being with a female when she is sexually receptive. By moving over large distances, the male breeds more frequently than if he stayed with one female, and also he does not overload the female's food supply. Since the general location of a female is pretty predictable, males range through the jungle and to announce their presence they give a loud bellowing vocalization using their throat sacs as resonating chambers. If females

are receptive they will move towards these sounds. If they are not interested, I have observed them to move away from the male. If males persist, I have seen females threaten them away. Since receptive females are such a scarce resource, males compete for them, and this has probably resulted in the large size, heavy beards, and big cheek flanges on the males' faces. I have observed males who were with females threaten away other males by bellowing at them and making large aggressive displays.

Bibliography: Carpenter, C. R., 1938, A Survey of Wildlife Conditions in Atjeh, North Sumatra, Netherlands Comm. Internat. Pro. 12:1-33; Davenport, R. K., 1967, The Orang-utan in Sabah, Folia Primat. 5:247-263; Harrisson, B., 1962, Orang-utan, London, Collins; MacKinnon, J., 1971, The Orang-utan in Sabah Today, Oryx 12:140-191; Schaller, G. C., 1961, The Orang-utan in Sarawak, Zoologica, 46:73-82.

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

NOTES FROM THE BRUNEI MUSEUM

P. M. Shariffuddin  
Curator

1) Mr. David McDougall, a graduate student from Oxford, has been studying the proboscis monkey in Brunei's mangrove swamps. Two Oxford undergrads, Marc Collins and Andre Neighbour, have assisted McDougall through the summer months. Mr. David Attenborough, Director of Programmes for the BBC, was in Brunei to film a program on the same monkey.

2) Prof. Wolfgang Franke of the University of Hamburg and Prof. Chen Tien Fan of the University of Malaya have examined a Chinese tombstone in Brunei. The tombstone appears to date from the 12th century, and hence is very old for Southeast Asia.

3) A price list for the purchase and mailing of the various publications of the Brunei Museum, as well as the Brunei Annual Report, is now available from the Curator, Brunei Museum, Kota Batu, Brunei.

4) Persons wishing to do research in Brunei should note that permission should now be arranged at the embassy-to-embassy (Great Britain's) level.

5) Lim Jock Seng, Assistant Curator of the Brunei Museum, is in England for a year and a half of training at the British Museum's ethnographic section.

6) Awang Jaya bin Sahat has just returned from Britain where he has completed his training at Glasgow Museum, Scotland, and the British Museum (Natural History). He did his training in exhibition and preservation of Animal Life.

MUSEUM NEWS AND RESEARCH NOTES FROM BORNEO

From Tom Harrisson

The increasing mobility of students is leading to problems in west Borneo, and this arises not only from there being too many stray, impecunious hippies (mostly from the U.S.A.) appearing on the scene, but also from beginning students who want a "research" experience. Unless this difficult problem is promptly dealt with at the source, it could lead to new undesirable field work restrictions, including in Brunei.

The recent news of the Sabah Museum is that Michael Pike has retired as Curator and Mr. J. Lee has taken his place. Michael Chong remains Assistant Curator. Assistant Curator of the Sarawak Museum, Lucas Chin, has just completed a world tour of museums, and he is now back on duty in Kuching.

CONTENTS OF DR. FRIDOLIN UKUR'S DISSERTATION ENTITLED TANTANG--

DJAWAB SUKU DAJAK (CHALLENGE RESPONSE-ETHNIC DAYAKS)

Reported and Translated by F. L. Cooley

Dr. Ukur's dissertation was presented to the Faculty of the Higher Theological School (Sekolah Tinggi Theologia) in Jakarta and was successfully defended in December, 1971. It is the first doctorate in theology ever granted in Indonesia. The author is an ordained minister of the Evangelical Church of Kalimantan, and for more than ten years served as rector of the Theological Academy of the Kalimantan Church in Banjarmasin.

The subtitle in translation of Dr. Ukur's dissertation is: "A Research into the Factors Surrounding the Rejection and the Reception of the Gospel Amongst the Ethnic Dajaks within the Framework of the History of the Church in Kalimantan: 1835-1945." The contents of the dissertation are as follows:

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ACTIVITIES OF THE AGRO ECONOMIC SURVEY IN KALIMANTAN

From William L. Collier

During the summer of 1972 Suhud Tjakra Werdaja and William L. Collier, of the Agricultural Development Council, cooperated with five staff members and 15 students from Tandjungpura University in Pontianak in carrying out research on the production and marketing of smallholders' rubber in West Kalimantan. The Survey also sponsored the same research in South Kalimantan and Ir. Supardi, Faculty of Agriculture, University of Lambung Mangkurat in Banjarmasin was the team leader.

Three reports based on this research in West Kalimantan are as follows:

Suhud, Tjakra Werdaja and Hidajat Ardiwinata, 1972, Produksi Dana Tataniaga Karet Rakyat Di Kabupaten Sambas, Propinsi Kalimantan Barat, draft, Survey Agro Ekonomi.

Soentoro and Hendry Albert Nahan, 1972, Produksi dan Tataniaga Karet Rakyat Di Kabupaten Pontianak, Propinsi Kalimantan Barat, draft, Survey Agro Ekonomi.

Nurut, Anwar and Bonar Siregar, 1972, Produksi Dan Tataniaga Karet Rakyat Di Kabupaten Sanggau, Propinsi Kalimantan Barat, draft, Survey Agro Ekonomi.

DELFT ETHNOGRAPHIC MUSEUM: SPECIAL BORNEO EXHIBITION, 1973

From Tom Harrisson

From February through 1973 the newly expanded INDONESISCH ETHNOGRAFISCH MUSEUM, Delft, Holland, is mounting an important exhibition of Borneo art, including many pieces not previously seen in public. The Director, Dr. J. van der Werf, asked me to help in identifications and background data for Malaysia and Brunei, though the main thrust is naturally from once Dutch Kalimantan. Dr. Avé of Leiden, who has done field work in the southeast, has written a sound introduction to an exciting catalog including rare old photographs. This is a preview, assuring those in Europe in 1973 not to miss the Delft effort.

The Museum's own hitherto little-known collections were started in the present buildings, when it was a college for senior colonial administrative officers especially for Indonesia. But they have drawn on other Dutch, Belgian and German museums or private collections, including the very remarkable series of

Ngadju and other wood carvings very recently acquired in Sourabaya by a Belgian dealer, Mons. Emile Deletaille of Brussels, and also Myneer H. de Silva of the Hague. These wood carvings, mostly in belian ironwood and probably from an ancient cave hoard, are of the greatest interest for a fresh look at Borneo's art tradition. Some of them surpass anything previously known from the whole island in sculptural grace, imaginative execution and an almost comically fierce fantasy.

There are also fascinating early photographs notably from Father Tillema exploring the Apo Kayan and elsewhere in the century.

But the show is broadly representative of most aspects of Kalimantan material culture. For Sarawak, there are some notable Iban textiles (pua) and fine Kenyah-Kayan wood and bead work which can equally come from either side of the border. For Brunei, there are two astonishingly ornate giant "kettles," lavishly sprinkled with Chinese-styled animals and those ever-puzzling "cowbodys"--horses (not known in Brunei then) with sombreroed riders. The origin and dating of these undoubtedly Brunei-made objects remains a mystery. We know rather more on the manufacture of cannon, which the sultanate certainly pioneered for the area well before Magellen's ships arrived (in 1521). Unfortunately, the wonderful and more tastefully ornate Brunei cannon are hardly known in Europe and the one on display here is a relatively poor fellow. There are also some moderate Melanau figures from the southwest coast. Nothing at all from Sabah.

BRB people are strongly recommended to visit Delft this year. And the catalog, though also only in Dutch, will be a collector's piece in its own right.

With the generous cooperation of Mons. Deletaille and Delft I am preparing a fully illustrated separate report on the Ngadju wood carvings.

NEWS AND ANNOUNCEMENTS

APPOINTMENTS IN THE DEPARTMENT OF ANTHROPOLOGY AND SOCIOLOGY, RESEARCH SCHOOL OF PACIFIC STUDIES, AUSTRALIAN NATIONAL UNIVERSITY

Applications are invited for appointment at any of the following levels: Senior Fellow, Fellow, Senior Research Fellow, Research Fellow. The Department is devoted exclusively to research and postgraduate training; its concerns are centered on the study of human behavior, culture and society, in Aboriginal Australia, New Guinea and the Islands of Melanesia and Polynesia, Malaysia, Indonesia and Southeast Asia. Appointees will be free to conduct independent research, with adequate facilities for field work, and will also be responsible for supervising the studies and researches of Ph.D. students within the Department.

The academic establishment of the Department numbers ten, with adequate supporting staff and equipment. A second Chair of

Anthropology within the Department was recently advertised and it is envisaged that the successful applicant will hold the Headship of the Department alternately, on a biennial basis, with Professor Derek Freeman, the present Head of Department.

Applicants are expected to have a Ph.D. degree or its equivalent, and to have had research experience (in one or more of the areas in which the Department is interested) commensurate with the position for which they are applying. Applicants should indicate clearly the position (or positions) for which they wish to be considered.

The salary of a Senior Fellow is determined within the range \$11234 - \$13172 per annum, and a Fellow within the range \$8166 - \$11217 per annum. Senior Fellows and Fellows are appointed for an initial period of five years, after which they are normally reappointed to retiring age. A Senior Fellow is entitled to one year's study leave on full pay, plus a contribution towards travel and other expenses, in every six years of service, and a Fellow in every seven years.

The salary of a Senior Research Fellow is determined within the range \$10026 - \$11964 per annum, and a Research Fellow within the range \$6804 - \$9324 per annum. Appointment to Senior Research Fellowships and Research Fellowships is normally for three years, extendable to a maximum of five years.

Further information may be obtained from C. G. Plowman, Academic Registrar, P. O. Box 4, Canberra, ACT 2600, Australia.

CONTENTS LIST OF TWO FORTHCOMING ISSUES

OF THE SABAH SOCIETY JOURNAL

From P. A. Burrough, Editor  
*Sabah Society Journal*

Volume 5, No. 3 (December 1971), will contain the following articles: "Notes on the Natural Vegetation of Kudat District" by J. E. D. Fox; "Murut and Lun Dayah Bird Names" by J. Comber; "Extracts from the Diary of Mr. G. C. Woolley" Forward by M. Pike; "Murut and Dusun Graves in Keningau District" by P. A. Burrough; and "Two Narratives by G. C. Woolley and Owen Rutter" by Ferenc Xavier Wittl with an Introduction by Josephine Boenisch Burrough.

Volume 5, No. 4 (September 1972) will contain the following articles: "Coal Mining at Silimpoon 1906-1932" by K. J. Goodlet; "Some Poisonous Insects of Sabah and Their Control" by Jorge K. L. Leong; "The North Borneo Chartered Company's Administration of the Bajau 1878-1909" by James F. Warren; "Traditional Methods of Dusun Rice Cultivation" By Josephine Boenisch Burrough and Alik Jamin; "The Ascent of Trusmadi by B. D. Acres; and "Notes on Place-Names and Personal Names in the Song-Language of the Timugon Muruts" by J. D. Prentice.

Volume 6 of the Journal is planned as a monograph on Kinabalu with an Introduction by T. Harrisson and contributions by D. W. McCredie, P. F. Cockburn, G. Mikel, and Josephine Boenisch Burrough.

A CATALOG OF PROGRAMS IN SOUTHEAST ASIAN STUDIES

The Southeast Asia Regional Council of the Association for Asian Studies, 130 Lane Hall, University of Michigan, Ann Arbor, Michigan 48104, U.S.A., has published a booklet detailing Southeast Asian programs offered by American universities. In addition there is included a list of foreign centers engaged in Southeast Asian studies.

B O R N E O N E W S

Kalimantan News

OMAR O. HIDAJAT, Lembaga Pusat Penelitian Pertanian, Departemen Pertanian, Banjarmasin, writes that his Institute has a book on the history of the city of Banjarmasin in Indonesian and a pamphlet entitled "Tidal Swamp Rice Culture in South Kalimantan."

BISHOP W. DEMARTEAU msf., Banjarmasin, writes that he has been helping Mr. Nicholl with data on the history of South Kalimantan.

JA' ACHMAD, Kepala Kantor Pembinaan Permuseuman, Departemen Pendidikan Dan Kebudayaan Perwakilan Propinsi, Pontianak, Kalimantan Barat, notes that his office has prepared a "Report on a Research Project: Compilation of Ethnographic, Historic, and Prehistoric Data from the Area in West Kalimantan; Section I, Kapuas Melawi" (22 pages, 1971) in Indonesian.

WILLIAM W. CONLEY, Chairman of the Department of Missions and Anthropology, St. Paul Bible College, Bible College, Minnesota 55375, writes that he and Mrs. Conley returned from a three month visit to East Kalimantan where further data was gathered for his dissertation on the Kenyah people and gospel receptivity. He spent the autumn at the School of World Missions, Fuller Seminary, Pasadena, writing up his material for his dissertation for a Doctor of Missiology degree. His advisor is an anthropologist, Alan Tippett. The Kenyah people, writes Conley, are now practically 100% Christians. In East Kalimantan the evangelization program began about 1930.

STEPHANIE MORGAN is currently carrying out research for her Ph.D. in the Department of Anthropology, Cornell University, in the Putussibau region of the Kapuas Hulu, Kalimantan Barat. Her research is primarily focused on the effort to shift such groups as the Taman and Kantu to individual housing rather than long-houses and to wet rice agriculture. She also reports that in the far upper reaches of the river system the Punan and Bukat peoples are being encouraged to move down river. Her current address is Putussibau, Kalimantan Barat, Indonesia.

Sarawak

J. P. ANDRIESSE writes that he was a resident of Sarawak from 1960 to 1971 and was employed as Senior Officer, Soil Survey, Department of Agriculture, Kuching, Sarawak. He is presently engaged in advisory work and research activities on tropical soils with the Royal Tropical Institute, and he is continuing his studies of the soils of Sarawak as part of his research program. In particular, he is dealing with soil genesis in the region, and he has recently completed a compilation of all survey work and soil research done in west Sarawak during his stay there, which will be published by the Government Printing Office in Kuching. Specifically, present research activities are concentrated on the clay mineralogy of Sarawak soils and the distribution and forms of iron oxides in them.

IR. BOUWE G. GRIJPSTRA, as of January 1, 1973, will have returned to the Department of Rural Sociology of the Tropics and Subtropics, Agricultural University, Herenstraat 25, Wageningen, Netherlands. He further writes that he is interested to communicate with persons having the knowledge of the Bidayah and rural development policies in Sarawak during various periods.

DR. J. D. FREEMAN has been appointed to the Chair of Anthropology and the Headship of the Department of Anthropology and Sociology, Institute of Advanced Studies, Australian National University. In commemoration of the Centennial anniversary of the publication in 1872 of Charles Darwin's The Expression of Emotions in Man and Animal, J. D. Freeman organized a Joint Symposium of the Anthropology, Psychology and Zoology Sections of the 44th ANZAAS Congress, entitled Ethology and the Study of Human Behavior. Dr. Freeman's contribution to the Symposium was concerned with the relevance of ethology to the study of cultural behavior. Then in August Dr. Freeman presented a paper on "The Significance of Primary Bonding for Psychiatry and the Behavioral Sciences" to the Geigy Conference on Psychiatric Research at the University of Melbourne.

M. B. HOOKER, Faculty of Social Sciences, University of Kent, Canterbury, Kent, England, writes: My interests are primarily in the adat laws of Malaysia, including East Malaysia. On the latter I have published summaries of judicial decisions on so-called 'Dyak adat'. (Hooker 1967:30-32, 64-66) A lengthy paper on the position of Dyak adat in the framework of courts and legislature in Sarawak is in preparation for publication next year. I also hope to continue research into Malay adat laws in East Malaysia in the near future. Ref: Hooker, M. B., 1967, A Sourcebook of Adat, Chinese Law and the History of Common Law in the Malayan Peninsula, Singapore: Faculty of Law, University of Singapore."

I. M. SCOTT, Soil Survey Division, Department of Agriculture, Kuching, Sarawak, writes that his sphere of research at present is largely the mapping and classification of soils in the central lowlands of Sarawak and the relationship to the present land use patterns and the agricultural potential of present land-use patterns to the agricultural potential of the area.

W. DONALD McTAGGART of the Department of Geography, Arizona State University, Tempe, Arizona 85281, writes that he hopes to be in Kuching next summer for a three month project with Chan Kok Eng (Geography, University of Malaya). They shall be looking at the administrative and legal response to changes in population numbers and distribution.

Sabah

P. A. BURROUGH reports that the reconnaissance soil survey of Sabah is nearly completed and will be published by H.M.S.O., London, in late 1973-74. The Burroughs plan to be leaving Sabah in January 1973 to return to Britain for a few months before Dr. Burrough takes up a lectureship in Soil Science at the Department of Geography, University of New South Wales, Australia.

Brunei

BERNARD HEWITT, Acting Director of Agriculture, Brunei, has been accepted as a Ph.D. candidate at the Department of Southeast Asian Sociology, University of Hull, England; subject: agricultural systems in Brunei. Mr. Hewitt already has degrees in Science and Arts and was previously a lecturer in science subjects at the University of Malaya and Malawi (Africa). See his recent paper on Borneo rice in Brunei Museum J. 1971, 1972.

TOM HARRISSON reports that he is now completing a monograph on Prehistoric Wood Excavated at Kota Batu, Brunei and Elsewhere in Borneo. This is scheduled to be published in early 1973 as the second Brunei Museum monograph (the first was Don Brown's The Social History of the Sultanate). It will be the first ever serious study of wood work and timbers generally as used in the pre-European period, in the early iron and stone ages.

BOOK REVIEWS, ABSTRACTS

& BIBLIOGRAPHY

DISSERTATION ABSTRACTS\*

The Lun Dayeh of Sabah, East Malaysia: Aspects of Marriage and Social Exchange

Jay Bouton Crain (Ph.D. Cornell University 1970)

This study presents a preliminary description of the social structure of one population of Lun Dayeh, an indigenous people of the highlands of north-central Borneo.

\* The abstracts printed here are from (continued bottom page 59)

The author and his family lived in a Lun Dayeh village on the lower Mengalong River in the southern-most district of Sabah. The author employed traditional anthropological field methods, together with recording samples of verbal interaction in selected settings. The major statistical data are derived from a domestic family census of seven villages.

The exchange of affection, greetings, labor, foodstuffs, and other commodities is a pervasive feature of Lun Dayeh society. Exchange, reciprocity, and mutual assistance reflect one of the basic value assumptions of the society--that working together with others is closely related to spiritual and physical health. The analysis of this exchange is approached through a processual model of social structure derived from Eisenstadt's concept of institutional process.

Exchanges occur between neighbors, cognates, affines, informally between individuals, and more formally between corporate domestic families. Such exchanges occur in connection with: 1) the organization of labor for the production of rice, clearing of land, and the construction of houses, 2) the establishment of conjugal and affinal status, and 3) death.

The study concludes that the exchange of goods and services in Lun Dayeh society is a central feature of a system of social relations that allows a wide range of choice. In this system each family is continually a creditor or debtor vis-à-vis other families, which are defined for certain social purposes as kinsmen or affines. The creditor-debtor relations are initiated and maintained through a variety of exchanges that center around the developmental cycles of families and the seasonal pattern of rice agriculture. These exchanges represent the major mechanisms for the circulation of goods and services and are seen to embody the highest moral ethics of the society.

Families differentially participate in this exchange system. Those families who, by virtue of their reputation and wealth, sponsor the ceremonies and activities through which the norms are expressed function in the capacity of moral brokers and receive respect accordingly. This is a matter of degree for every family sponsors some exchanges. The marriage feasts and agricultural events of "well-known" families have, however, some of the character of privilege ceremonies. The prestige or privilege accrued the sponsoring family is not derived from display of wealth, but rather from having provided the mass performance of symbolic acts which embody the very essence of the social structure. (Order No. 71-14,618, 423 pages)

A Study of the Occupational Patterns and Social Interaction of Overseas Chinese in Sabah, Malaysia

Sin Fong Han (Ph.D. The University of Michigan, 1971)

The present study is an attempt to explore two relatively neglected yet significant aspects of Overseas Chinese communities--occupational patterns and inter-speech group social interaction, with special reference to the Chinese communities in Sabah.

The study begins with a brief description of the history of Chinese immigration into Sabah. Attention is given to an evaluation of the factors that pushed the Chinese abroad and that pulled them into Sabah. The present occupational patterns of the six major Chinese speech groups--Cantonese, Hakka, Hailam, Hokkian, Henghua and Teochiu, are then described and analyzed, based primarily on the data collected from Kota Kinabalu, Beaufort and Labuan. The next phase of the study concentrates on the analysis of the sequential changes in the occupational patterns of individual speech groups with particular reference to an intensive case study of the Chinese communities in Labuan. This is followed by a general survey of social interaction between members of different speech groups, primarily based on the parameters of inter-speech group marriage and business partnership.

The kinship-oriented immigration, tight business rings, language barriers, cultural heritage of mutual responsibility, social solidarity, and overseas conditions, have been the major factors in the development of occupational specialization along speech group lines. Early Sabah Chinese society is characterized by very limited occupational and social mobility. Inter-speech group relationships were confined mainly to economic interaction. Social interaction had been undertaken primarily within the individual speech group.

The advent of modernization and Western technology during the post World War II period has had both direct and indirect impact on Chinese occupational patterns. The accessibility of Western education appears to have led to a steady expansion of white-collar workers, technicians, and professional personnel. Western education has become one of the most important avenues for job placement and vertical mobility. It has provided opportunities for those who wish to break away from the rigid occupational patterns.

The Chinese reactions to the Western impact, however, have differed from one speech group to another. These differences are reflected in positive attitudes toward change or, on the other hand, in a deliberate preservation of customary occupations. Generally speaking, persons in occupations of lower socio-economic standing are more likely to change their traditional occupations than persons engaged in occupations holding higher socio-economic status.

The diffusion of Western forms has also helped to increase inter-speech group marriage between members of the younger generation. The degree of integration has differed from one speech group to another. Persons with higher educational achievement and who are engaged in Western-oriented wage-paying jobs are more likely to marry a spouse of different

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(Continued from page 57) Dissertation Abstracts International, University Microfilms, Ann Arbor, Michigan 48106, U.S.A. Positive microfilms of the dissertations noted may be obtained for US\$4 and a xerographic copy may be purchased for US\$10. The BRB is greatly indebted to Frank J. Shulman, of the University of Michigan, who has provided the Editor with copies of the abstracts.

speech group than those with lower educational achievement and those engaged in traditional shopkeeping enterprises.

This study concludes: (a) that because of speech group occupational specialization, diversity, not uniformity is the essential characteristic of the Sabah Chinese communities, and (b) because of the impact of Western technology and Western education, together with the gradual modernization of Sabah society, the Overseas Chinese society is changing rapidly from a speech-group oriented, fragmentary society to a socially and culturally more integrated society; and from an ascribed folk society to an achieved modern society. (Order No. 72-4891, 307 pages)

B I B L I O G R A P H Y

Bibliography

Maxwell, Allen R., 1970, Brunei Bibliography in the JSBRAS and JMBRAS. Brunei Museum J. 2:264-268.

Nevadomsky, Joseph-John and Alice Li, 1971, The Chinese in Southeast Asia: A Selected and Annotated Bibliography of Publications in Western Languages, 1960-1970. Berkeley, U. of California Press.

Theses on Southeast Asia Presented at Northern Illinois University 1960-71: An Annotated Bibliography, 1972, Center for Southeast Asia Studies, Northern Illinois U., DeKalb, Illinois.

Tiamson, Alfredo T., 1970, Mindanao-Sulu Bibliography Containing Published, Unpublished Manuscripts and Works-in-progress, A Preliminary Survey and W. E. Retana's Bibliografia de Mindanao (1894). Davao City, Ateneo De Davao. Index by province and subject by province. Index general.

Novels

Keith, Agnes Newton, 1972, Beloved Exiles. Atlantic, Little-Brown. \$7.95.

Ross, Sheila, 1972, The Perfect Carrier. London, Collins.

Schoendoerffer, Pierre, 1971, Farewell to the King. Translated from the French by Zan Fielding. Bantam Books \$1.25.

Agriculture

Brunei Shell Petroleum Co. Ltd, n.d., Sinaut Agricultural Project: 1971 Annual Report.

UNESCO, 1971, Soils and Tropical Weathering: A Symposium, Bandung, Indonesia, Nov. 1969 (150 pp., illus. paper \$7.50). Paris, UNESCO. Natural Resources Research 11.

Biology

De Silva, G. S., n.d., Bornean Elephant: Note 1. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.

n.d., Notes on the Sulphur-crested Cockatoo. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.

Medway, Lord, 1971, Observations of Social and Preproductive Biology of the Bent-winged Bat *Miniopterus australis* in Northern Borneo. J. Zool., London 165:261-273.

Thompson, Max C., 1966, Birds from North Borneo. U. of Kansas Publications, Museum of Natural History 17:377-433.

Botany

Stone, B. C., 1968, Studies in Malesian Pandanaceae. 8, Some New and Little Known Sections of Pandanus. Fed. Mus. J. 13:138-149.

1968, Studies in Malesian Pandanaceae. 9, Taxonomic Notes on Pandanus: Species and Synonyms. Fed. Mus. J. 13:150-154.

1969, Studies in Malesian Pandanaceae. 10, Four New Malesian Species of Pandanus and Notes on *P. sarawakensis*. Fed. Mus. J. 14:127-136.

Conservation

De Silva, G. S., 1971, Notes on the Orang-utan Rehabilitation Project in Sabah. Malay. Nat. J. 24:50-77.

n.d., Marine Turtle Conservation in Sabah. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.

Harrison, B., 1971, Conservation of Nonhuman Primates in 1970. Primates in Medicine Vol. 5. Basel, Karger (U.S. distributor: Phiebig, White Plains, N.Y.; vi, 100 pp. \$6.70).

Ethnography and Social Anthropology

Brown, D. E., 1971, The Coronation of Sultan Muhammad Jamalul Alam, 1918. Brunei Museum J. 2:74-80.

Burrough, P. A., 1970, Stick Signs in the Sook Plain. Sabah Society J. 5:83-97.

Crain, J. B., 1970, the Mengalong Lun Dayeh Long-house. Sarawak Museum J. 18:169-185.

1970, The Domestic Family and Long-house Among the Mengalong Lun Dayeh. Sarawak Museum J. 18:186-192.

Deegan, J., 1970, Some Lun Bawang Spirit Chants. Sarawak Museum J. 18:264-280.

Dournes, Jacques, 1972, Chamanisme a Mujat (Sarawak, Borneo). Extrait de la revue OBJECTS ET MONDES, Tome XII, Fasc. 1, Printemps.

Hooker, M. B. (ed. & compiler), 1967, A Source Book of Adat, Chinese Law and the History of Common Law in the Malayan Peninsula, Malaya Law Review Monograph No. 1, Faculty of Law, U. of Singapore, 211 pp.

Hudson, J. M., 1971, Some Observations on Dance in Kalimantan, Indonesia 12:132-150.

Jensen, Erik Henning, 1968/69, Iban Belief and Behavior. D.Phil. dissertation, Oxford U.

MacDonald, C., 1972, Le Mariage Palawan. Homme 12:5-28.



- Maxwell, Allen R., 1969, Kedayan Ethno-ornithology. Brunei Museum J. 1:197-217.  
 — 1970, On The Various Spellings of the Word "Kadayan." Brunei Museum J. 2:87-103.  
 Miles, D. J., 1964, Funeral Rites of the Ngadju Dayaks of Central Borneo. Australian National History, June: 331-333.  
 Nimmo, H. Arlo, 1971, Bajau: Gentle Boat-dwellers of the Philippines. In Nomads of the World. Washington, National Geographic Society.  
 — 1972, The Sea People of Sulu. San Francisco, Chandler Press.  
 — 1972, You Will Remember Us Because We Have Sung For You. Philippine Studies 20:299-322.  
 Sandin, B., 1970, The Tatau People of the Kakus and Anap Rivers, Fourth Division, Sarawak. Sarawak Museum J. 18:162-164.  
 Sørensen, Stenar, 1970, Signs and Symbolism of Message Sticks from the Katingan Ngadju in South Borneo. The Yearbook, Ethnographic Museum, U. of Oslo, pp. 109-132.  
 Taib Bin Osman, M., 1972, Patterns of Supernatural Premises Underlying the Institution of the Bomoh in Malay Culture. Bijdragen tot de Taal-, Land- en Volkenkunde 128:219-234.  
 Vayda, A. P., 1969, The Study of the Causes of War, With Special Reference to Head-hunting Raids in Borneo. Ethnohistory 16:211-224.

Forestry

- Alabazo, J. C. and V. M. Corpuz, n.d., Tree Marking for Retention. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.  
 Cockburn, P. F., n.d., A Note on the Phenology of Dipterocarps 1968/69. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.  
 Fox, J. E. D., n.d., Kuamut Forest Reserve. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.  
 — n.d., Silvicultural and Economic Aspects of Relogging. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.  
 — n.d., Some Notes on Ultrabasic Forest at Lohan Near Ranau. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan Negeri Sabah 1969. Borneo Literature Bureau.  
 Hepburn, A. J., 1969, State of Sabah Annual Report of the Research Branch of the Forest Department for the Year 1969. Kuching, Government Printing Office \$M10.00.  
 Pollard, J. F., n.d., A Preliminary Note on Species Likely to be Suitable for Plantations On Wet Sites. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.  
 — n.d., Gum Gum Forest Reserve. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969, Borneo Literature Bureau.  
 — n.d., Ulu Kukut Plantation 1966-69. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.  
 — n.d., Review of Plantation Work 1965-69 and an Outline of the Programme During the Period 1970-75. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.

- Thapa, R. S., n.d., Notes on Some Insect Pests of Laran (Anthocephalus Chinensis), in Sabah. In A. J. Hepburn (ed.), Laporan Penyelidek Hutan, Negeri Sabah 1969. Borneo Literature Bureau.

Geography

- Uhlig, H., n.d., Aus der Sicht der wissenschaftlichen Geographie: Die Geographie in der Grundlagen forschung und Raumplanung der Entwicklungsländer und ihre Behandlung im Unterricht. Der bisherige Beitrag der Geographie zu Fragen der räumlichen Umweltgestaltung. Der Erdkundeunterricht, Sonderdruck, Ernst Klett Verlag Stuttgart, pp. 84-95.

History

- Crisswell, Colin N., 1971, The Origins of the Limbang Claim. Journal of Southeast Asian Studies 2:218-230.  
 Freeman, Derek, 1970, Robert Pringle's *Rajahs and Rebels*. Sarawak Museum J. 18:416-419.  
 Reynolds, John Keith, 1970, Towards an Account of Sulu and Its Borneo Dependencies, 1700-1878. MA dissertation, University of Wisconsin.  
 Warren, James J., 1971, The North Borneo Charter Company's Administration of the Bajau, 1878-1909: The Pacification of a Maritime, Nomadic People. Papers in International Studies, Southeast Asia Series No. 22, Ohio University Center for International Studies, Southeast Asia Program, pp. xiv, 109, Appendix. \$3.00.

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THE BORNEO RESEARCH COUNCIL (Continued from page 38)

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